April 2025
Project No. 116830

VIA EMAIL: Michael.Squire@dec.ny.gov

Mr. Michael Squire
New York State Department of Environmental Conservation
Division of Environmental Remediation, Bureau C
625 Broadway
Albany, NY 12233

Re: Work Plan for Upcoming Shallow Excavations
Troy (Smith Ave.) Former MGP Site
Troy, New York

Dear Mr. Squire:

On behalf of National Grid, GEI has prepared the following work plan to describe work and oversight activities for up to seven small excavations at the Troy (Smith Ave.) Former MGP Site (NYSDEC Site Number 442030) in Troy, NY. Excavation procedures will be conducted in general accordance with the Excavation Work Plan (EWP) that was included in the Site Management Plan (SMP) submitted to NYSDEC on June 30, 2023. GEI will provide construction oversight and Community Air Program (CAMP) monitoring during the intrusive work.

Description of Work to be Performed

National Grid's subcontractor will perform three pit excavations with approximate dimensions of 6 feet wide by 8 feet long by 5 feet deep, and up to four pipe-to-soil interface excavations with approximate dimensions of 3 feet wide by 3 feet long by 3 feet deep. The locations of these excavations are shown on the figure provided in Appendix A.

The primary objective of these excavations is to expose the existing gas piping, investigate for the presence of anomalies or damage to the coating or the pipes, and obtain material properties for the pipe such as thickness and yield strength. The estimated excavation size is based on the space needed to perform the investigations and accommodate the necessary tools/equipment. Excavations will be performed using a combination of vacuum excavation and manual excavation using hand-held tools.

The total estimated volume of soil to be excavated is approximately 40 cubic yards. Excavated materials will be placed in roll-off containers for sampling and off-site disposal. Asphalt and other construction debris will be segregated from soil. Backfill will consist of sand, crushed stone, and asphalt pavement as necessary to restore the areas back to their existing conditions.

Summary of Environmental Conditions

As described in the FER, the contamination that remains in site soil from 0-5 feet (the depth of the excavations in this work plan) in the area where the excavations will be conducted may include lead, mercury, silver, zinc, and benzo(k)fluoranthene above the Unrestricted Soil Cleanup Objectives (SCOs). These compounds have not been detected above the Commercial SCOs in remaining soil above 5 feet.

Grossly impacted soil at OU-1 has been observed in the former gas holder area to the west of the work area, which was remediated during the project completed by National Grid between December 2014 and June 2016. Non-aqueous phase liquid (NAPL), blebs, and sheen have historically been observed in soil and groundwater at depths below 15 feet, so heavy MGP impacts to soil or groundwater are not expected to be encountered during these shallow excavations.

Work Schedule

Mobilization and intrusive work are anticipated to begin in May or June of 2025. The project is estimated to take up to two weeks to complete. We will notify you once a schedule has been finalized and a mobilization date has been established.

Applicable EWP Components

The components of the EWP that apply to this series of excavations include soil screening, materials excavation and staging/stockpiling, materials transport off-site, materials disposal off-site, cap system restoration, backfill from off-site sources, excavation contingency plan, CAMP, odor control plan, and dust control plan.

Soil screening will include visual, olfactory, and instrument-based (e.g. photoionization detector) screening by a qualified environmental professional during all excavations and invasive work performed during utility maintenance.

As required by the EWP, a qualified environmental professional or person under their supervision will oversee the intrusive work and the excavation and load-out of the excavated material. As the excavation will be conducted via vacuum truck and hand tools, it will not be necessary to set up a truck or equipment washing protocol. Soil that is collected in vacuum trucks will be placed in lined roll-off containers and covered while awaiting the results of the waste characterization analysis and disposal.

Sun Environmental (Sun), on behalf of National Grid will perform the sampling, waste characterization, facility acceptance and transportation of the excavated material to the disposal facilities. During transport, loaded vehicles leaving the site will be appropriately lined, tarped, covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements.

The transport of the excavated materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded. Based on our prior experience at the site, truck transport routes will generally be: east on Bond Street, Smith Avenue, or Douw Street, right (south) on River Street, left (east) on Jay Street, which then curves around and becomes Route 7 West.

The excavated material will be removed from the site and be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. After waste characterization and facility acceptance is complete, Sun or GEI will notify NYSDEC of the proposed disposal facility in a separate letter. Actual disposal quantities and associated documentation will be reported to the NYSDEC in a separate letter report. This documentation will include waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

After the completion of soil removal and other invasive activities the cover system will be restored in a manner that complies with the Record of Decision (ROD) for OU-1. In paved areas, approximately 5 inches of asphalt serves as the cap system, consisting of 3 inches of asphalt binder course and 2 inches of asphalt top course. In gravel surface areas, approximately 6 inches of compacted crusher run (i.e. NYSDOT pavement subbase) will be used.

The materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site. The imported materials will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in Appendix 5 of DER-10. The proposed backfill material slated to be used for this project have been approved by NYSDEC for use as backfill material on similar nearby sites, and this is described in more detail below. Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to minimize dusts.

In the unlikely event that underground tanks or other previously unidentified contaminant sources are found during this project, excavation activities will be suspended until sufficient equipment is mobilized to address the condition. Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to evaluate the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling. Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

CAMP stations, operated by GEI, will be used to monitor for volatile compounds and particulates at the perimeter of the work zone. The CAMP stations will be located based on prevailing wind conditions. These locations will be adjusted daily, or more frequently, based on actual wind directions to provide one upwind and two downwind monitoring stations. The full CAMP is included in the Site Management Plan. The following procedures will be implemented during this project:

- Volatile organic compounds will be monitored at the downwind perimeter of the work zone on a continuous basis.
- If the ambient air concentration of total organic vapors at the downwind perimeter of the work zone exceeds 5 parts per million (ppm) above background for the 15-minute average,

work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shut down.

Readings will be recorded by an electronic data logger or in a field logbook and be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (ug/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques provided downwind PM-10 particulate levels do not exceed 150 ug/m3 above the upwind level and no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 ug/m3 above the upwind level, work will be stopped, and a re-evaluation of activities initiated. Work can resume provided dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 ug/m3 of the upwind level and preventing visible dust migration.

The manual readings will be recorded in the field logbook and be available for State (NYSDEC and NYSDOH) personnel to review. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

Odor control is not expected to be an issue during this project because the shallow excavations are not expected to encounter grossly contaminated materials. In the event that nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted, and the source of odors will be identified and corrected. Work will not resume until the nuisance odors have been mitigated. NYSDEC

and NYSDOH will be notified of odor events and other complaints about the project. A detailed description of the odor control plan for this site is included in the SMP.

Dust is expected to be minimal due to the limited size of the excavations and use of vacuum truck and hand tools for this project. However, the dust control plan described in the SMP requires dust suppression via water if necessary. An on-site source of water (e.g. hose spigot, tap, or hydrant) or a dedicated water truck will provide water for dust suppression if needed.

Health and Safety

The work conducted in general accordance with the EWP should also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) prepared for the site and included in Appendix F of the SMP. GEI will oversee the excavation activities and will have 'stop work' authority in the event that unsafe activities or conditions are observed. Safety meetings will be conducted each morning before work begins to review the key health and safety information for this site and as needed throughout each day to address changing work conditions, changes in planned activities or methodology, and other emerging health and safety concerns.

Disposal and Backfill

Excavated soil will be stored in lined and covered roll-off containers, which will be characterized and transported to a National Grid approved disposal facility by Sun under a separate contract.

Imported materials for backfill will be obtained from sources that have recently provided NYSDEC-approved materials to other National Grid sites in the area. These sources include:

- RJ Valente, George Thompson Road – Common Fill – 100% less than 2-inches, 87.8% less than ¾, 5.9% less than #200 – NYSDEC Mine # 50049
    - Approved by NYSDEC on January 7, 2025 for use at the NG Troy – Water Street Phase 2 site, NYSDEC Site Code 442029
- Callanan Industries, Cropseyville – bedding sand – 100% less than 3/8", 9.2% less than #200 – NYSDEC Mine # 40031
    - Approved by NYSDEC on March 10, 2022 for use at the NG Troy PL E-20 Gas Pipeline Replacement Project, NYSDEC Site Code: 4-42-029
- RJ Valente, Cropseyville/Grafton Quarry – Pavement Subbase (crusher run) – NYSDEC Mine# 40693 - exempt from analytical, less than 10% passing #100
    - Approved by NYSDEC on June 11, 2024 for use at the NG Mercury Refining site in Albany, NYSDEC Site Code 401025

Due to the small volume of import materials and the recent DEC approval, we request that the analytical testing requirements for this project be waived. Based on the final material types/quantities, we will prepare the DEC Request to Import/Reuse Soil forms. The currently available analytical results for the common fill and bedding sand, as well as the NYSDEC approvals for the utilization of this backfill at nearby sites, are included in Appendix B.

If you have any questions, please feel free to contact me at 607.216.8975.

Sincerely,

GEI Consultants Engineering, Geology, Architecture & Landscape Architecture.

Daniel Kopcow, P.E.
Engineer of Record; Vice President

P.J. Snyder, P.E.
Vice President

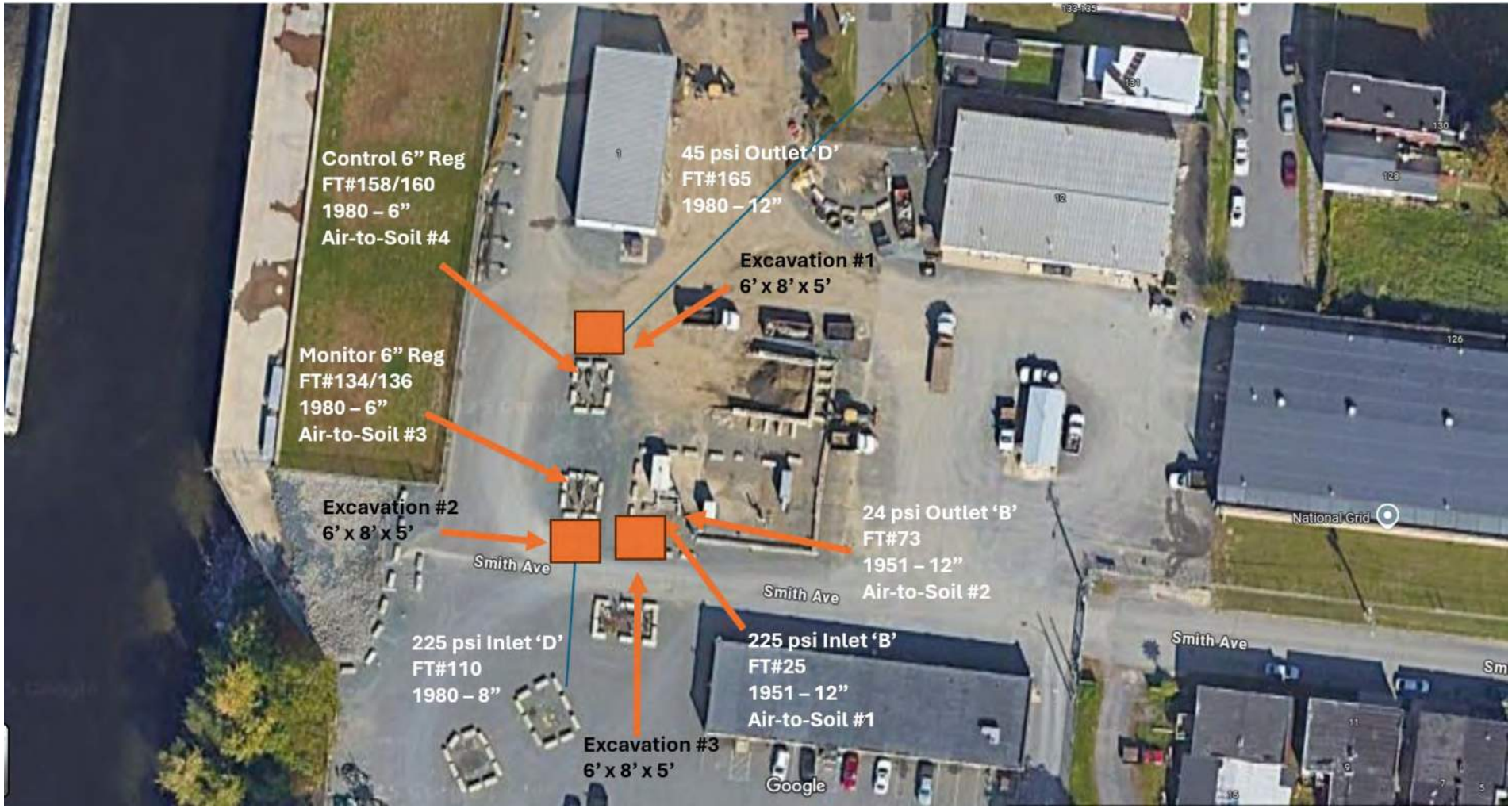
Appendices

Appendix A Excavation Location Figures
Appendix B Analytical Results and DEC Approvals for Backfill Sources

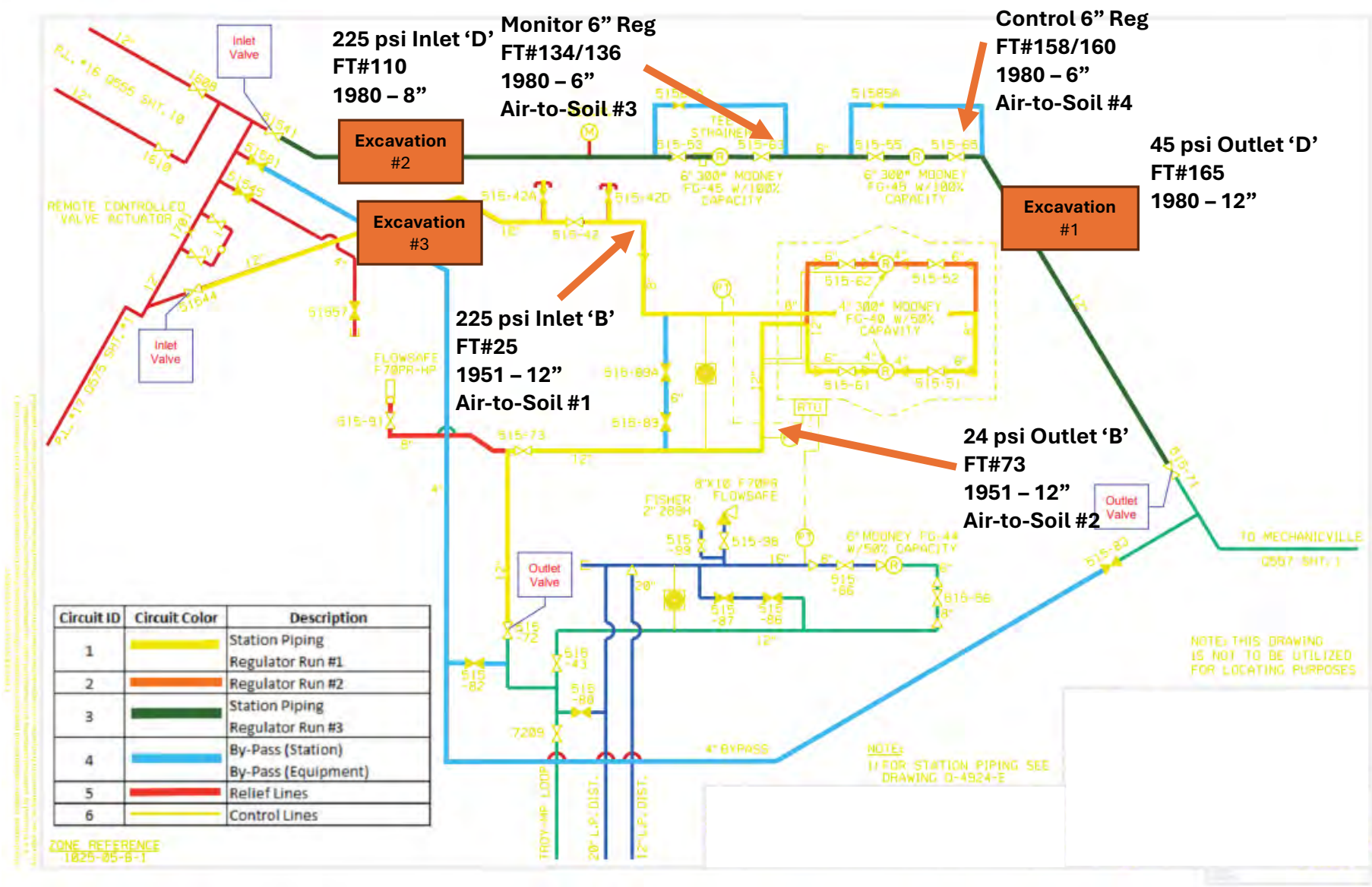
cc: Steve Beam, National Grid

PJS/ED:ag
\\geiconsultants.com\data\Data_Storage\Working\NATIONAL GRID\116830 Troy-Smith Ave OU1 OU3\2025 Work Plan - pipe excavations\Work Plan.docx

Appendix A Excavation Location Figures

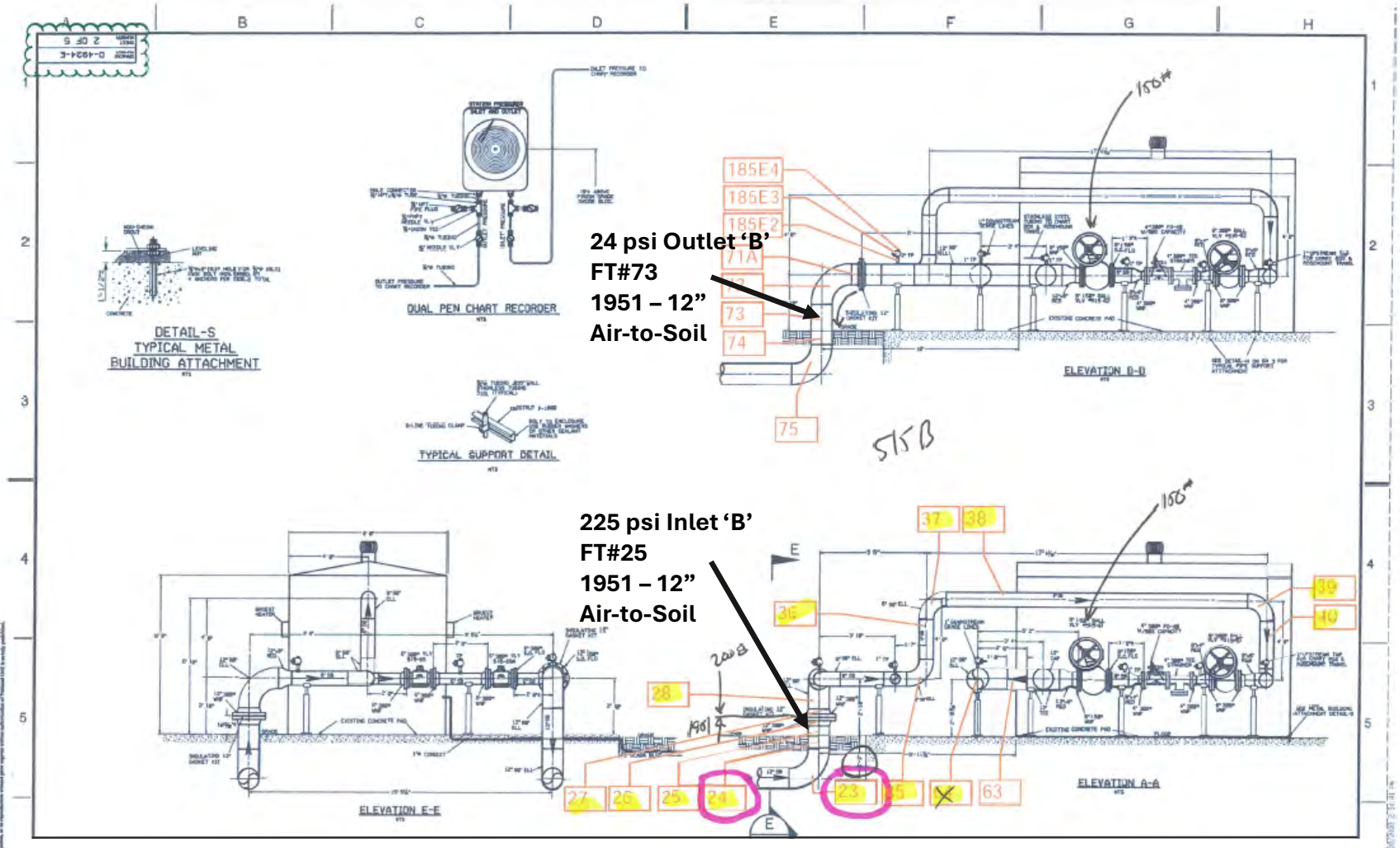


Pipe Excavation Work Plan Troy - Smith Avenue Former MGP Site Troy, NY	GEI Consultants	Pipe Excavation Locations
National Grid	Project 116830	March 2025 Fig. 1

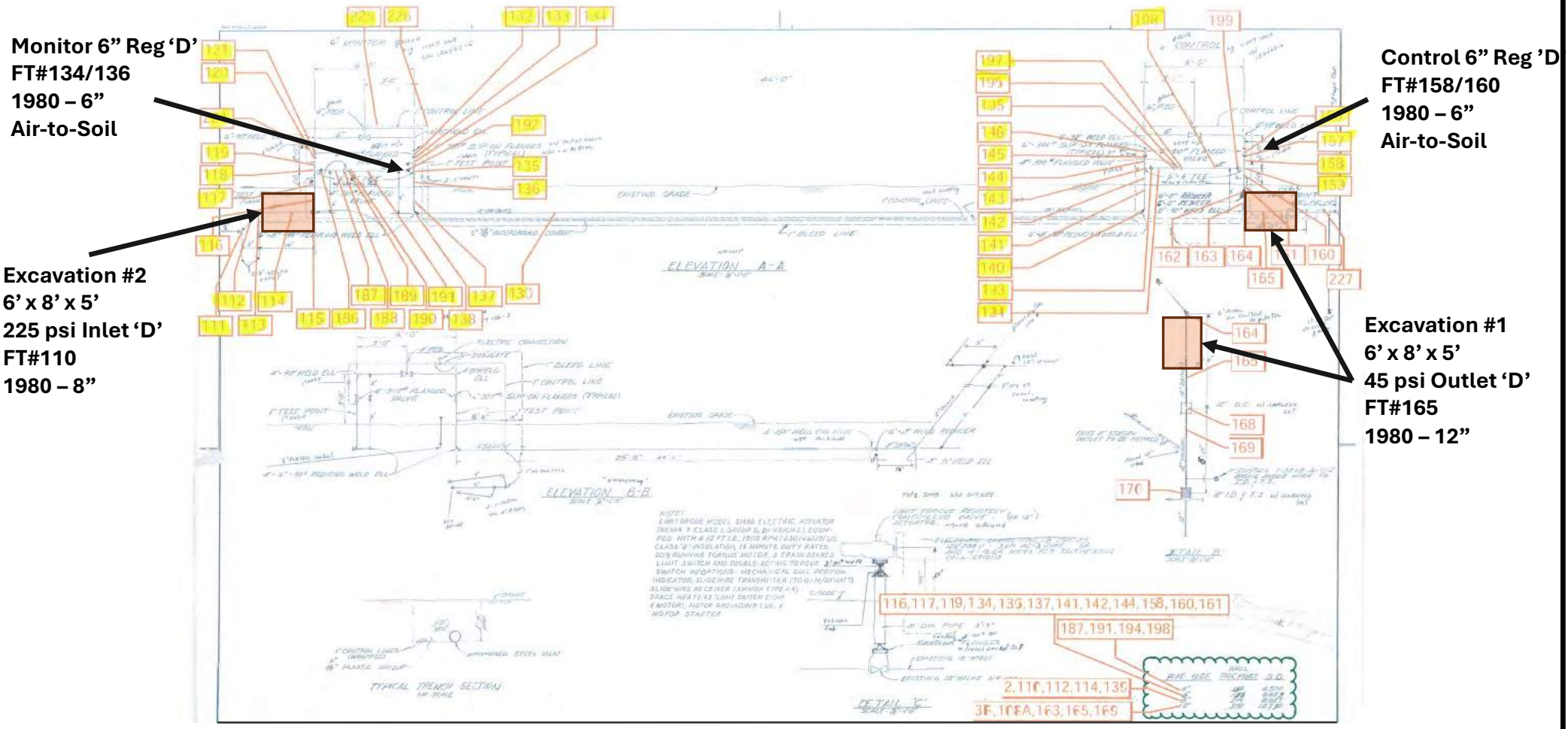


Circuit ID	Circuit Color	Description
1		Station Piping Regulator Run #1
2		Regulator Run #2
3		Station Piping Regulator Run #3
4		By-Pass (Station) By-Pass (Equipment)
5		Relief Lines
6		Control Lines

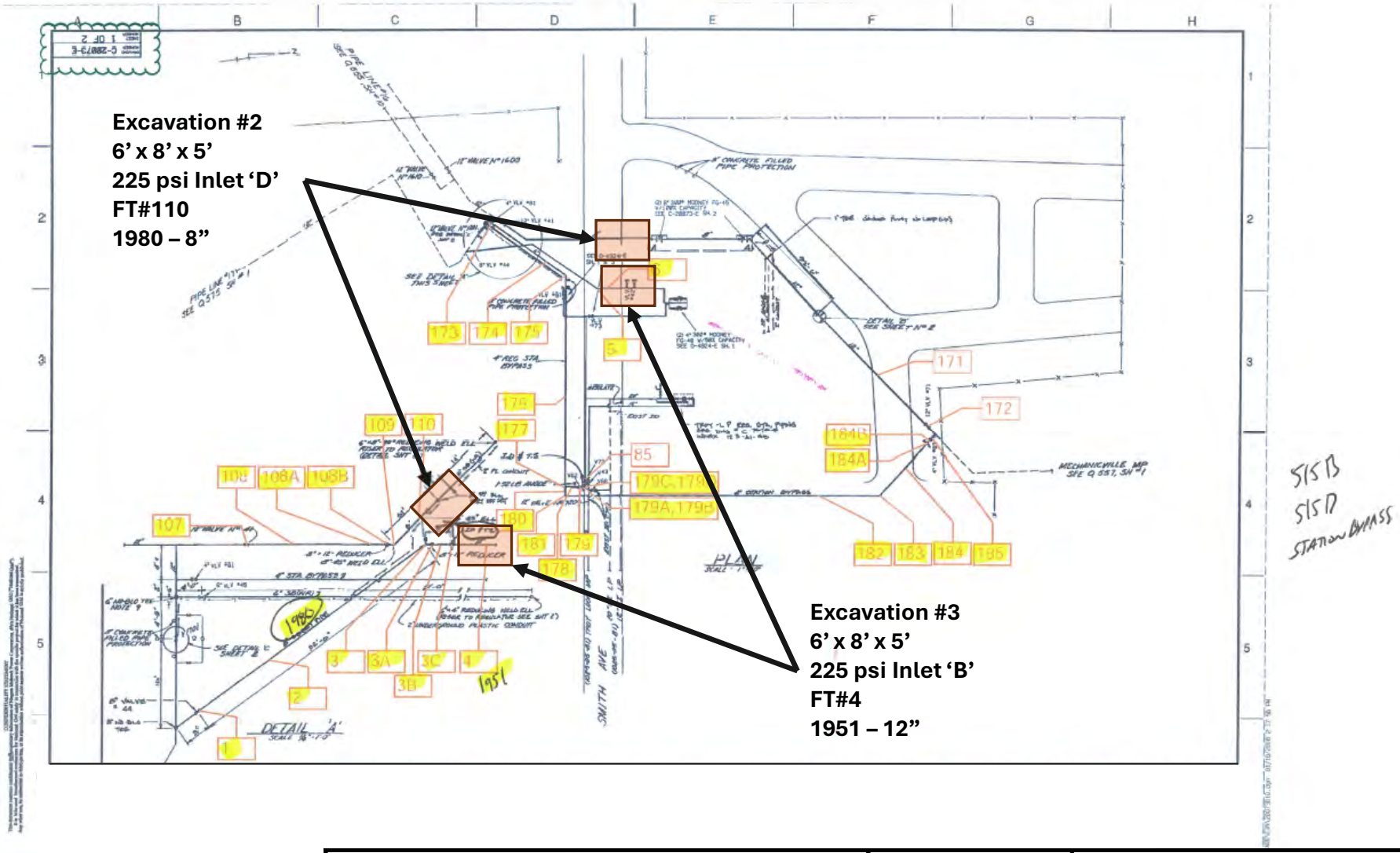
Pipe Excavation Work Plan Troy - Smith Avenue Former MGP Site Troy, NY	GEI Consultants	Piping Plan with Excavation Locations
National Grid	Project 116830	March 2025 Fig. 2



Pipe Excavation Work Plan Troy - Smith Avenue Former MGP Site Troy, NY	GEI Consultants	Piping Elevations and Excavation Plan - 'B'
National Grid	Project 116830	March 2025 Fig. 3



Pipe Excavation Work Plan Troy - Smith Avenue Former MGP Site Troy, NY	GEI Consultants	Piping Elevations and Excavation Plan - #1, #2, 'D'
National Grid	Project 116830	March 2025 Fig. 4



Pipe Excavation Work Plan Troy - Smith Avenue Former MGP Site Troy, NY	GEI Consultants	Site Layout with Excavation #2 and #3 Locations
National Grid	Project 116830	March 2025 Fig. 5

Appendix B Analytical Results and NYSDEC Approval for Backfill Sources

800 CY BEDDING SAND/STONE DUST

Nia Gilliam

From: Spellman, John (DEC) <john.spellman@dec.ny.gov>
Sent: Thursday, March 10, 2022 1:28 PM
To: Adam Sherman
Cc: Cummins, Gerald; Himmel, Dana
Subject: RE: Troy PL E-20 Gas Pipeline Project - Request to Import Bedding Sand/Stone Dust

Hi Adam,

This replies to your 3 emails to me yesterday regarding the requests to import No. 2 stone, crusher run and bedding sand. All three materials are approved for use on the involved properties for the subject pipeline replacement project.

Regards,

John

John Spellman, P.E.
Project Manager, Remedial Bureau C
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7014
P: 518-402-9686| F: 518-402-9679 | john.spellman@dec.ny.gov

From: Adam Sherman <ASherman@Brwncald.com>
Sent: Wednesday, March 9, 2022 10:29 AM
To: Spellman, John (DEC) <john.spellman@dec.ny.gov>
Cc: Cummins, Gerald <Gerald.Cummins@nationalgrid.com>; Himmel, Dana <Dana.Himmel@nationalgrid.com>
Subject: Troy PL E-20 Gas Pipeline Project - Request to Import Bedding Sand/Stone Dust

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good morning, John.

Attached please find the request to import Bedding Material for the PL E-20 Gas Pipeline Partial Replacement Project.

Please let us know if you have any comments or questions.

Thanks, Adam

Adam Sherman, P.E.
Sr. Principal
Brown and Caldwell | Albany, NY
ASherman@brwncald.com
T 518.560.5911 | **C** 201.602.0075

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Professional Registration in Specific States

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Unrestricted

Have Ecological Resources been identified? yes

Is this soil originating from the site? no

How many cubic yards of soil will be imported/reused? 800-1000

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? yes

Does it contain less than 10%, by weight, material that would pass a size 80 sieve? no

Is this virgin material from a permitted mine or quarry? yes

Is this material recycled concrete or brick from a DEC registered processing facility? no

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

6 discrete samples were collected and analyzed for VOCs and 2 composite samples were collected and analyzed SVOCs, PCBs, Pesticides/Herbicides, Metals, and Cyanide.

Additionally, 2 composite samples were collected from the stockpile for analysis of emerging contaminants PFAS and 1,4-Dioxane.

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

The analytical results for DER-10 parameters are included in Attachment 3 (DER-10 Analytical Results). Refer to pages 7 through 18 for VOCs, pages 24 through 27 for SVOCs, pages 33 and 34 for PCBs, pages 38 and 41 for Pesticides/Herbicides, pages 47 and 48 for Metals, and pages 58 and 65 for Organics and Miscellaneous.

The analytical results for emerging contaminants 1,4-Dioxane and PFAS are included in Attachment 4a (PFAS, refer to pages 6 and 7) and Attachment 4b (1,4-Dioxane, refer to pages 6 through 8). Attachment 4c (NYS Category B Deliverable for PFAS results) will be uploaded to a sharepoint file sharing site due to the file size.

The results of the DER-10 analytical testing are below allowable levels for Unrestricted Use SCOs. Emerging contaminant PFAS was not detected. Emerging contaminant 1,4-Dioxane was not detected.

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Peter Minotti, Quality Representative, Callanan Industries INC.

Location where fill was obtained:

Callanan Cropseyville Quarry, 33 Palitsch Road, Cropseyville, NY 12052

Identification of any state or local approvals as a fill source:

MLF# 40031 (Permit ID 4-3822-00005/00001)

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Refer to Attachment 1.

Provide a list of supporting documentation included with this request:

Attachment 1 - Source Certification Statement
Attachment 2 - Results of Geotechnical Testing
Attachment 3a, 3b - Results of DER-10 Analytical Testing and Lab Report
Attachment 4a, 4b - Results of Emerging Contaminant (PFAS and 1,4-Dioxane) Testing

The information provided on this form is accurate and complete.

Adam Sherman

Digitally signed by Adam Sherman
DN: CN=Adam Sherman, OU=Albany, OU=User, OU=Accounts, OU=BC, DC=bc, DC=brwncald, DC=com
Date: 2022.03.09 10:25:57-05'00'

Signature

3/9/2022

Date

Adam R. Sherman

Print Name

Brown and Caldwell Associates

Firm

Revised August 2014

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 4
1130 North Westcott Road, Schenectady, NY 12306-2014
P: (518) 357-2069 | F: (518) 357-2460
www.dec.ny.gov

July 20, 2020

Peter Minotti
Callanan Industries, Inc.
PO Box 15097
Albany, NY 12212

RE: DEC #4-3822-00005/00001
MLF #40031
Mine: Cropseyville Quarry
Town of Brunswick, Rensselaer County

Dear Mr. Minotti:

Enclosed please find your modified permit for the above-referenced location in accordance with the approved Mined Land-Use and Reclamation Plan.

Please review the General and Special Conditions contained in the mining permit which will expire on November 8, 2021. Any deviation from the approved Mined Land-Use and Reclamation Plan during the five-year permit term will require a modification to the permit (see General Condition #3 of the permit). If you have any questions concerning the conditions of the permit, please contact me.

Sincerely,

Nancy M. Baker
Regional Permit Administrator
Region 4

Enc. (Permit, sign)
cc: Psalm Wyckoff, MLRS, Region IV
John Orza, Griggs-Lang Consulting Geologists
File

PERMIT

Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
CALLANAN INDUSTRIES INC
PO BOX 15097
Albany, NY 12212-5097
(518) 374-2222

Facility:
CALLANAN CROPSEYVILLE QUARRY
33 PALITSCH RD
CROPSEYVILLE, NY 12052

Facility Location: in BRUNSWICK in RENSSELAER COUNTY
Facility Principal Reference Point: NYTM-E: 620.656 NYTM-N: 4736.279
Latitude: 42°46'10.4" Longitude: 73°31'30.8"
Project Location: 33 Palitsch Road, Cropseyville
Authorized Activity: Continued operation of a 110.7-acre Life of Mine sandstone mine for which a previous permit has been issued under Article 23, Title 27, of the Environmental Conservation Law (Mined Land Reclamation), of which 98 acres are authorized to be affected during this permit term. All activities shall be conducted in accordance with the conditions contained in this permit.

Permit Authorizations

Mined Land Reclamation - Under Article 23, Title 27
Permit ID 4-3822-00005/00001

Renewal	Effective Date: 11/9/2016	Expiration Date: 11/8/2021
Modification # 1	Effective Date: 7/20/2020	Expiration Date: 11/8/2021

NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: NANCY M BAKER, Regional Permit Administrator
Address: NYSDEC Region 4 Headquarters
1130 N Westcott Rd
Schenectady, NY 12306

Authorized Signature: Nancy M Baker Date 07/20/2020

Permit Components

MINED LAND RECLAMATION PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

MINED LAND RECLAMATION PERMIT CONDITIONS

1. **Conformance With Plans** All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or applicant's agent as part of the permit application. Such plans were approved by the Department on various dates and consist of the following items:

a) Consent Order in the Matter of Callanan Industries Inc. vs Thomas Jorling, Commissioner, and the NYS Department of Environmental Conservation, Index No. 10259-87.

Documents and maps by Dunn Geoscience Corp:

b) Mined Land Use Plan narrative, dated 7/27/1977, entitled "Application for Permit to Mine Campbell Mountain Quarry".
c) Mining Plan Map, dated 6/1984, revised 1/1988, numbered 6519
d) Reclamation Plan Map, dated 8/1981, revised 1/1988, numbered 7877

Documents and maps by Rust Environment and Infrastructure:

e) Narrative entitled "Additional Information to the 1991 Permit Renewal" dated 3/1994

Documents and maps by Spectra Environmental Group, Inc:

a) Narrative entitled "Renewal Application for Renewal of Mining Permit" dated 5/6/1999
b) Mining Plan Map, dated 1/28/2002, revised 6/26/2002
c) Mining Plan Map, dated 6/22/2004, last revised 3/25/2010
d) Reclamation Plan Map, dated 2/10/2005
e) Final Grade Profiles, dated 6/22/2004
f) Application for permit renewal dated 5/2010
g) Correspondence to the NYS DEC dated 8/30/2010

Documents and maps by Griggs-Lang Consulting Geologists Inc:

h) Mining Plan Map, dated 6/17/2015, last revised 6/25/2020

2. **Conditions Prevail Over Plans** If any condition of this permit conflicts with the approved plans, the permit condition shall prevail over the plans.

3. **No Deviation From Approved Plan** The permittee shall not deviate or depart from the approved mined land use plan without approval by the Department of an alteration or modification thereto.

4. **Bond, Surety to Remain in Force** Any required reclamation bond or other surety, in an amount determined by the Department, shall be maintained in full force and effect. Such a bond or other surety shall not be terminated until the reclamation of the mined area is approved by the department in writing.

5. **Post Sign and Permit** The enclosed permit and permit sign must be conspicuously posted in a publicly accessible location at the project site. They must be visible, legible and protected from the elements at all times.

6. **Strip and Stockpile Soils for Reclamation** Prior to the excavation of previously undisturbed areas, topsoil and overburden shall be stripped, stockpiled separately, and used for reclamation of mined areas. These stockpiles shall be seeded to establish a vegetative cover within 30 days, or as soon as practicable following their construction. The permittee shall locate all overburden stockpiles within the permitted area of the approved Life of Mine. Sufficient quantities of topsoil must be retained on the site for use in reclamation, unless prior approval is granted by the Department.

7. **No Unpermitted Discharge Outside Limits of Mine** There shall be no natural swales or channels or constructed features such as ditches, pipes, etc., that are capable of discharging waters to any offsite areas or to any areas outside the limits of the Life of Mine except those explicitly described and shown in the narrative and graphic portions of the approved Mined Land Use Plan. All silt laden water and storm water generated on, or running across, the site shall be retained within the approved project area. The permittee must comply with all applicable State Pollutant Discharge Elimination System (SPDES) permit requirements and provide necessary notifications for off-site point source discharges.

8. **Maintain Area Markers for Permit Term** The permittee shall provide permanent markers such as stakes, posts or other devices acceptable to the Department to identify and delineate the permit area, as outlined on the approved Mining Plan Map. These markers are to be installed prior to the start of mining and shall be maintained for the duration of the permit term.

9. **Fueling of Equipment and Reporting of Spills** Fueling of equipment shall be controlled to prevent spillage. Any spillage of fuels, waste oils, other petroleum products or hazardous materials shall be reported to the Department's Spill Hotline number (1-800-457-7362) within 2 hours. The permittee shall retain the Department's Spill Response number for immediate access in the permittee's office and at the mine site.

10. **Dust Control** Water or other approved dust palliatives must be applied to haulageways and other parts of the mine, as often as necessary, to prevent visible dust from leaving the mine property.

11. **Storage of Explosives** Storage of explosives on site shall conform to State of New York, Department of Labor Industrial Code Rule 39, found at 12 NYCRR 39:

    Part 39.6 General Provisions for the Storage and Handling of Explosives
    Part 39.8 Construction and Maintenance of Magazines
    Part 39.9 Location of Magazines

12. **Permit Does Not Apply to Structures and Safety Aspects** Unless expressly provided for, the issuance of this permit does not apply to any structures contained on the plans or in the specifications, nor does this permit apply to safety aspects of the operation and/or reclamation plan.

13. Licensed Blaster Required All blasting shall be undertaken, monitored and recorded by a blaster licensed by the New York State Department of Labor. The permittee shall maintain copies of all blasting records. Such records shall be made available to the Department (NYSDEC) upon request.

14. Blasting Hours Blasting shall be conducted between the hours of 9:00 a.m. to 5:00 p.m. Exceptions from these hours will require prior Department approval. No blasting will occur on Sundays or legal holidays.

15. No Flyrock Beyond the Property Line There shall be no flyrock beyond the property line including flyrock that travels in the air or along the ground. In the event of flyrock beyond the property line, all blasting shall cease immediately and the flyrock incident shall be reported within 24 hours to the Regional Mined Land Reclamation Specialist. Blasting shall not resume until written approval to resume blasting is obtained from the Department.

16. Prevent Injury Blasting shall be conducted in a manner to prevent injury to persons and damage to public or private property outside the permit area.

17. Air Blast Limits Air blasts shall not exceed 133 dB using a 2Hz high-pass system at the location of any structure outside the Life of Mine area.

18. Seismograph Monitoring All blasts shall be monitored with a properly calibrated seismograph. Seismographs shall be installed at the nearest residential receptor and any locations identified within the approved Mined Land Use Plan or locations determined by the Department. Seismograph records shall be provided to the Department upon request.

19. Ground Vibration Limits Ground vibration shall not exceed the limits as per the attached ground vibration limits graph from the U. S. Bureau of Mines Report of Investigation 8507 (Figure B-1, Safe levels of blasting vibration for houses using a combination of velocity and displacement). Maximum peak particle velocity shall not exceed these limits at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area.

20. File Termination Notice If the permittee discontinues operation, a termination notice must be filed within 30 days of termination of mining activities to the address below:

Regional Mined Land Reclamation Specialist
NYSDEC Region 4 Headquarters
1130 N Westcott Rd
Schenectady, NY12306

21. Human or Archaeological Remains If any human remains or archaeological remains are encountered during excavation, the permittee must immediately cease, or cause to cease, all work in the area of the remains and notify

Regional Permit Administrator
NYSDEC Region 4 Headquarters
1130 N Westcott Rd
Schenectady, NY12306

Work shall not resume until written permission to do so has been received from the Department.

GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. **Facility Inspection by The Department** The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71- 0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. **Relationship of this Permit to Other Department Orders and Determinations** Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. **Applications For Permit Renewals, Modifications or Transfers** The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC Region 4 Headquarters
1130 N Westcott Rd
Schenectady, NY12306

4. **Submission of Renewal Application** The permittee must submit a renewal application at least 30 days before permit expiration for the following permit authorizations: Mined Land Reclamation.

5. **Permit Modifications, Suspensions and Revocations by the Department** The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

a. materially false or inaccurate statements in the permit application or supporting papers;

b. failure by the permittee to comply with any terms or conditions of the permit;

c. exceeding the scope of the project as described in the permit application;

d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;

e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. Permit Transfer Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification
The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit
The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits
The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights
This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

Troy Sand & Gravel

Gradation Test Report

MATERIAL: Stone Dust - Sand Bedding

Date:	09.21.21	11:30AM	Lab/Location:	West Sand Lake, NY.
Source:	Cropseyville		Sample #:	1
Plant Type:			Sample Location:	Cropseyville
Facility #:			Sampled By:	Dan C

Moisture Content

Wet Mass(W):	1493.8
Original Dry Mass(D):	1440.6
Moisture Loss (W - D):	53.2
% Moisture (100 x (W - D) / D):	3.7

Materials Finer than #200 Sieve by Washing

Dry Mass after wash (Dw):	
Mass of Fines lost by washing (D - Dw):	0.0
% -75 µm Sieve (100 x (D - Dw)/D):	

Mechanical Analysis of Extracted Aggregate

Sieve	Mass per Sieve		% Retained per Sieve		% Passing		Specification	
	Unwashed	Washed	Unwashed	Washed	Unwashed	Washed		
3/8"	0.0		0.0		**100.0**			
#4	6.4		0.4		**99.6**			
#8	118.3		8.2		**91.8**			
#16	473.9		32.9		**67.1**			
#30	757.8		52.6		**47.4**			
#50	974.7		67.7		**32.3**			
#100	1164.5		80.8		**19.2**			
#200	1307.4		90.8		**9.2**			
Pan	1440.6		100.0		0			
Loss on Washing (D - Dw)					Fineness Modulus (FM) =		**2.426**	
Total	1440.6							

Comments:

Tested by:	Allison	Reviewed by:	
Certification #:	21-01I	Certification #:	
Date:	09.21.21	Date:	

ANALYTICAL REPORT

Lab Number:	L2208119
Client:	J. Mullen and Sons, Inc. 997 Kings Highway Saugerties, NY 12477
ATTN:	Joseph Mihm
Phone:	(845) 247-0954
Project Name:	NATIONAL GRID PLE20
Project Number:	22-15
Report Date:	03/06/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: NATIONAL GRID PLE20
Project Number: 22-15

Lab Number: L2208119
Report Date: 03/06/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2208119-01	B SAND 1	SOIL	7990 MAIN ST, TROY, NY 12180	02/16/22 12:10	02/16/22
L2208119-02	B SAND 2	SOIL	7990 MAIN ST, TROY, NY 12180	02/16/22 12:11	02/16/22
L2208119-03	B SAND 3	SOIL	7990 MAIN ST, TROY, NY 12180	02/16/22 12:12	02/16/22
L2208119-04	B SAND 4	SOIL	7990 MAIN ST, TROY, NY 12180	02/16/22 12:13	02/16/22
L2208119-05	B SAND 5	SOIL	7990 MAIN ST, TROY, NY 12180	02/16/22 12:14	02/16/22
L2208119-06	B SAND 6	SOIL	7990 MAIN ST, TROY, NY 12180	02/16/22 12:16	02/16/22
L2208119-07	COMP B SAND 1	SOIL	7990 MAIN ST, TROY, NY 12180	02/16/22 12:18	02/16/22
L2208119-08	COMP B SAND 2	SOIL	7990 MAIN ST, TROY, NY 12180	02/16/22 12:20	02/16/22

Project Name:	NATIONAL GRID PLE20	**Lab Number:**	L2208119
Project Number:	22-15	**Report Date:**	03/06/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	NATIONAL GRID PLE20	**Lab Number:**	L2208119
Project Number:	22-15	**Report Date:**	03/06/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

Total Metals

L2208119-07 and -08: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1607432-1 Method Blank, associated with L2208119-07 and -08, has a concentration above the reporting limit for iron. Since the associated sample concentrations are either greater than 10x the blank concentration or non-detect to the RL for this target analyte, no corrective action is required. Any results detected below the reporting limit are qualified with a "B".

Cyanide, Total

The WG1607734-2/-3 LCS/LCSD recoveries for cyanide, total (73%/68%), associated with L2208119-07 and -08, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Jennifer L Clements

Title: Technical Director/Representative

Date: 03/06/22

ORGANICS

VOLATILES

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-01
Client ID: B SAND 1
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:10
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 18:10
Analyst: AJK
Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.1	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
Tetrachloroethene	ND		ug/kg	0.51	0.20	1
Chlorobenzene	ND		ug/kg	0.51	0.13	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.51	0.17	1
Benzene	ND		ug/kg	0.51	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	ND		ug/kg	0.51	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.57	1
o-Xylene	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Acetone	6.2	J	ug/kg	10	4.9	1
2-Butanone	ND		ug/kg	10	2.3	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-01 Date Collected: 02/16/22 12:10

Client ID: B SAND 1 Date Received: 02/16/22

Sample Location: 7990 MAIN ST, TROY, NY 12180 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
1,4-Dioxane	ND		ug/kg	82	36.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	97		70-130

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-02
Client ID: B SAND 2
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:11
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 18:35
Analyst: AJK
Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.1	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
Tetrachloroethene	ND		ug/kg	0.51	0.20	1
Chlorobenzene	ND		ug/kg	0.51	0.13	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.51	0.17	1
Benzene	ND		ug/kg	0.51	0.17	1
Toluene	ND		ug/kg	1.0	0.55	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	ND		ug/kg	0.51	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.57	1
o-Xylene	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Acetone	ND		ug/kg	10	4.9	1
2-Butanone	ND		ug/kg	10	2.2	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-02 Date Collected: 02/16/22 12:11

Client ID: B SAND 2 Date Received: 02/16/22

Sample Location: 7990 MAIN ST, TROY, NY 12180 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
1,4-Dioxane	ND		ug/kg	81	36.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	98		70-130

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-03
Client ID: B SAND 3
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:12
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 18:59
Analyst: AJK
Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
Tetrachloroethene	ND		ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.17	1
Benzene	ND		ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.58	1
o-Xylene	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Acetone	ND		ug/kg	10	5.0	1
2-Butanone	ND		ug/kg	10	2.3	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
n-Propylbenzene	ND		ug/kg	1.0	0.18	1

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-03 Date Collected: 02/16/22 12:12

Client ID: B SAND 3 Date Received: 02/16/22

Sample Location: 7990 MAIN ST, TROY, NY 12180 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.34	1
1,4-Dioxane	ND		ug/kg	83	36.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	98		70-130

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-04
Client ID: B SAND 4
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:13
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 19:25
Analyst: AJK
Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
Tetrachloroethene	ND		ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.18	1
Benzene	ND		ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.57	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.59	1
o-Xylene	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Acetone	ND		ug/kg	10	5.0	1
2-Butanone	ND		ug/kg	10	2.3	1
n-Butylbenzene	ND		ug/kg	1.0	0.18	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
n-Propylbenzene	ND		ug/kg	1.0	0.18	1

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-04 Date Collected: 02/16/22 12:13

Client ID: B SAND 4 Date Received: 02/16/22

Sample Location: 7990 MAIN ST, TROY, NY 12180 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
1,4-Dioxane	ND		ug/kg	84	37.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	99		70-130

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-05
Client ID: B SAND 5
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:14
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 19:51
Analyst: AJK
Percent Solids: 98%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.1	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
Tetrachloroethene	ND		ug/kg	0.51	0.20	1
Chlorobenzene	ND		ug/kg	0.51	0.13	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.51	0.17	1
Benzene	ND		ug/kg	0.51	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	ND		ug/kg	0.51	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.57	1
o-Xylene	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Acetone	ND		ug/kg	10	4.9	1
2-Butanone	ND		ug/kg	10	2.3	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
n-Propylbenzene	ND		ug/kg	1.0	0.18	1

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-05 Date Collected: 02/16/22 12:14

Client ID: B SAND 5 Date Received: 02/16/22

Sample Location: 7990 MAIN ST, TROY, NY 12180 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
1,4-Dioxane	ND		ug/kg	82	36.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	99		70-130

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-06
Client ID: B SAND 6
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:16
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 20:17
Analyst: AJK
Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Acetone	ND		ug/kg	10	4.8	1
2-Butanone	ND		ug/kg	10	2.2	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-06 Date Collected: 02/16/22 12:16

Client ID: B SAND 6 Date Received: 02/16/22

Sample Location: 7990 MAIN ST, TROY, NY 12180 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
1,4-Dioxane	ND		ug/kg	80	35.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	99		70-130

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/27/22 13:30
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1609873-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Vinyl chloride	ND		ug/kg	1.0	0.34
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Acetone	ND		ug/kg	10	4.8
2-Butanone	ND		ug/kg	10	2.2
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/27/22 13:30
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1609873-5					
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	95		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1609873-3 WG1609873-4								
Methylene chloride	91		89		70-130	2		30
1,1-Dichloroethane	90		88		70-130	2		30
Chloroform	96		95		70-130	1		30
Carbon tetrachloride	114		112		70-130	2		30
Tetrachloroethene	**137**	Q	**133**	Q	70-130	3		30
Chlorobenzene	106		105		70-130	1		30
1,2-Dichloroethane	90		90		70-130	0		30
1,1,1-Trichloroethane	106		105		70-130	1		30
Benzene	98		98		70-130	0		30
Toluene	102		100		70-130	2		30
Ethylbenzene	103		100		70-130	3		30
Vinyl chloride	71		68		67-130	4		30
1,1-Dichloroethene	112		108		65-135	4		30
trans-1,2-Dichloroethene	107		104		70-130	3		30
Trichloroethene	107		103		70-130	4		30
1,2-Dichlorobenzene	108		108		70-130	0		30
1,3-Dichlorobenzene	110		108		70-130	2		30
1,4-Dichlorobenzene	108		108		70-130	0		30
Methyl tert butyl ether	89		90		66-130	1		30
p/m-Xylene	107		105		70-130	2		30
o-Xylene	105		103		70-130	2		30
cis-1,2-Dichloroethene	103		101		70-130	2		30
Acetone	80		66		54-140	19		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1609873-3 WG1609873-4								
2-Butanone	76		73		70-130	4		30
n-Butylbenzene	108		105		70-130	3		30
sec-Butylbenzene	110		108		70-130	2		30
tert-Butylbenzene	110		108		70-130	2		30
n-Propylbenzene	102		100		70-130	2		30
1,3,5-Trimethylbenzene	104		102		70-130	2		30
1,2,4-Trimethylbenzene	102		100		70-130	2		30
1,4-Dioxane	88		92		65-136	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	89		91		70-130
Toluene-d8	98		97		70-130
4-Bromofluorobenzene	92		93		70-130
Dibromofluoromethane	98		98		70-130

SEMIVOLATILES

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-07
Client ID: COMP B SAND 1
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:18
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/01/22 10:14
Analyst: ALS
Percent Solids: 97%

Extraction Method: EPA 3546
Extraction Date: 02/28/22 09:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	18.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Fluoranthene	ND		ug/kg	100	20.	1
Naphthalene	ND		ug/kg	170	21.	1
Benzo(a)anthracene	ND		ug/kg	100	19.	1
Benzo(a)pyrene	ND		ug/kg	140	42.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	27.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	26.	1
Anthracene	ND		ug/kg	100	33.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	17.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
Dibenzofuran	ND		ug/kg	170	16.	1
Pentachlorophenol	ND		ug/kg	140	38.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	26.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	27.	1

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID:	L2208119-07	Date Collected:	02/16/22 12:18
Client ID:	COMP B SAND 1	Date Received:	02/16/22
Sample Location:	7990 MAIN ST, TROY, NY 12180	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	75		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	62		30-120
2,4,6-Tribromophenol	58		10-136
4-Terphenyl-d14	63		18-120

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-08
Client ID: COMP B SAND 2
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:20
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/01/22 09:50
Analyst: ALS
Percent Solids: 96%

Extraction Method: EPA 3546
Extraction Date: 02/28/22 09:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	18.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Fluoranthene	ND		ug/kg	100	20.	1
Naphthalene	ND		ug/kg	170	21.	1
Benzo(a)anthracene	ND		ug/kg	100	19.	1
Benzo(a)pyrene	ND		ug/kg	140	42.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	27.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	26.	1
Anthracene	ND		ug/kg	100	34.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	17.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
Dibenzofuran	ND		ug/kg	170	16.	1
Pentachlorophenol	ND		ug/kg	140	38.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	27.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	27.	1

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-08 Date Collected: 02/16/22 12:20

Client ID: COMP B SAND 2 Date Received: 02/16/22

Sample Location: 7990 MAIN ST, TROY, NY 12180 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	76		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	63		10-136
4-Terphenyl-d14	67		18-120

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/01/22 00:58
Analyst: WR

Extraction Method: EPA 3546
Extraction Date: 02/28/22 09:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07-08 Batch: WG1609675-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	99	18.
Fluoranthene	ND		ug/kg	99	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Dibenzofuran	ND		ug/kg	160	16.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/01/22 00:58
Analyst: WR

Extraction Method: EPA 3546
Extraction Date: 02/28/22 09:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07-08 Batch: WG1609675-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	68		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	56		30-120
2,4,6-Tribromophenol	51		10-136
4-Terphenyl-d14	58		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07-08 Batch: WG1609675-2 WG1609675-3								
Acenaphthene	50		56		31-137	11		50
Hexachlorobenzene	43		48		40-140	11		50
Fluoranthene	51		56		40-140	9		50
Naphthalene	48		53		40-140	10		50
Benzo(a)anthracene	51		56		40-140	9		50
Benzo(a)pyrene	52		56		40-140	7		50
Benzo(b)fluoranthene	49		55		40-140	12		50
Benzo(k)fluoranthene	52		57		40-140	9		50
Chrysene	51		56		40-140	9		50
Acenaphthylene	48		53		40-140	10		50
Anthracene	52		58		40-140	11		50
Benzo(ghi)perylene	50		56		40-140	11		50
Fluorene	50		55		40-140	10		50
Phenanthrene	50		57		40-140	13		50
Dibenzo(a,h)anthracene	48		55		40-140	14		50
Indeno(1,2,3-cd)pyrene	52		58		40-140	11		50
Pyrene	51		56		35-142	9		50
Dibenzofuran	50		55		40-140	10		50
Pentachlorophenol	41		44		17-109	7		50
Phenol	56		61		26-90	9		50
2-Methylphenol	52		57		30-130.	9		50
3-Methylphenol/4-Methylphenol	57		62		30-130	8		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: NATIONAL GRID PLE20

Project Number: 22-15

Lab Number: L2208119

Report Date: 03/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07-08 Batch: WG1609675-2 WG1609675-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	51		56		25-120
Phenol-d6	54		59		10-120
Nitrobenzene-d5	50		56		23-120
2-Fluorobiphenyl	45		50		30-120
2,4,6-Tribromophenol	43		46		10-136
4-Terphenyl-d14	45		49		18-120

PCBS

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID:	L2208119-07	Date Collected:	02/16/22 12:18
Client ID:	COMP B SAND 1	Date Received:	02/16/22
Sample Location:	7990 MAIN ST, TROY, NY 12180	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/04/22 04:41
Analytical Date:	03/05/22 09:07	Cleanup Method:	EPA 3665A
Analyst:	JM	Cleanup Date:	03/04/22
Percent Solids:	97%	Cleanup Method:	EPA 3660B
		Cleanup Date:	03/05/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.7	2.99	1	A
Aroclor 1221	ND		ug/kg	33.7	3.38	1	A
Aroclor 1232	ND		ug/kg	33.7	7.15	1	A
Aroclor 1242	ND		ug/kg	33.7	4.55	1	A
Aroclor 1248	ND		ug/kg	33.7	5.06	1	A
Aroclor 1254	ND		ug/kg	33.7	3.69	1	A
Aroclor 1260	ND		ug/kg	33.7	6.23	1	A
Aroclor 1262	ND		ug/kg	33.7	4.28	1	A
Aroclor 1268	ND		ug/kg	33.7	3.49	1	A
PCBs, Total	ND		ug/kg	33.7	2.99	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	82		30-150	B

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID:	L2208119-08	Date Collected:	02/16/22 12:20
Client ID:	COMP B SAND 2	Date Received:	02/16/22
Sample Location:	7990 MAIN ST, TROY, NY 12180	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/04/22 04:41
Analytical Date:	03/05/22 09:16	Cleanup Method:	EPA 3665A
Analyst:	JM	Cleanup Date:	03/04/22
Percent Solids:	96%	Cleanup Method:	EPA 3660B
		Cleanup Date:	03/05/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.8	3.00	1	A
Aroclor 1221	ND		ug/kg	33.8	3.39	1	A
Aroclor 1232	ND		ug/kg	33.8	7.17	1	A
Aroclor 1242	ND		ug/kg	33.8	4.56	1	A
Aroclor 1248	ND		ug/kg	33.8	5.07	1	A
Aroclor 1254	ND		ug/kg	33.8	3.70	1	A
Aroclor 1260	ND		ug/kg	33.8	6.25	1	A
Aroclor 1262	ND		ug/kg	33.8	4.30	1	A
Aroclor 1268	ND		ug/kg	33.8	3.50	1	A
PCBs, Total	ND		ug/kg	33.8	3.00	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	81		30-150	B

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 03/05/22 08:41
Analyst: JM

Extraction Method: EPA 3546
Extraction Date: 03/04/22 01:02
Cleanup Method: EPA 3665A
Cleanup Date: 03/04/22
Cleanup Method: EPA 3660B
Cleanup Date: 03/05/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 07-08 Batch: WG1611547-1						
Aroclor 1016	ND		ug/kg	31.5	2.80	A
Aroclor 1221	ND		ug/kg	31.5	3.16	A
Aroclor 1232	ND		ug/kg	31.5	6.68	A
Aroclor 1242	ND		ug/kg	31.5	4.25	A
Aroclor 1248	ND		ug/kg	31.5	4.73	A
Aroclor 1254	ND		ug/kg	31.5	3.45	A
Aroclor 1260	ND		ug/kg	31.5	5.82	A
Aroclor 1262	ND		ug/kg	31.5	4.00	A
Aroclor 1268	ND		ug/kg	31.5	3.27	A
PCBs, Total	ND		ug/kg	31.5	2.80	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	86		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 07-08 Batch: WG1611547-2 WG1611547-3									
Aroclor 1016	78		75		40-140	4		50	A
Aroclor 1260	72		68		40-140	6		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		80		30-150	A
Decachlorobiphenyl	90		86		30-150	A
2,4,5,6-Tetrachloro-m-xylene	88		82		30-150	B
Decachlorobiphenyl	99		92		30-150	B

PESTICIDES

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-07
Client ID: COMP B SAND 1
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:18
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 03/02/22 17:48
Analyst: MSF
Percent Solids: 97%

Extraction Method: EPA 3546
Extraction Date: 02/28/22 12:11
Cleanup Method: EPA 3620B
Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.56	0.305	1	A
Lindane	ND		ug/kg	0.649	0.290	1	A
Alpha-BHC	ND		ug/kg	0.649	0.184	1	A
Beta-BHC	ND		ug/kg	1.56	0.591	1	A
Heptachlor	ND		ug/kg	0.779	0.349	1	A
Aldrin	ND		ug/kg	1.56	0.549	1	A
Endrin	ND		ug/kg	0.649	0.266	1	A
Dieldrin	ND		ug/kg	0.974	0.487	1	A
4,4'-DDE	ND		ug/kg	1.56	0.360	1	A
4,4'-DDD	ND		ug/kg	1.56	0.556	1	A
4,4'-DDT	ND		ug/kg	2.92	1.25	1	A
Endosulfan I	ND		ug/kg	1.56	0.368	1	A
Endosulfan II	ND		ug/kg	1.56	0.521	1	A
Endosulfan sulfate	ND		ug/kg	0.649	0.309	1	A
cis-Chlordane	ND		ug/kg	1.95	0.543	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	82		30-150	B

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-07
Client ID: COMP B SAND 1
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:18
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 03/01/22 12:29
Analyst: AKM
Percent Solids: 97%
Methylation Date: 03/01/22 05:56

Extraction Method: EPA 8151A
Extraction Date: 02/28/22 07:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	167	4.44	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	92		30-150	A
DCAA	75		30-150	B

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-08
Client ID: COMP B SAND 2
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:20
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 03/02/22 16:07
Analyst: MSF
Percent Solids: 96%

Extraction Method: EPA 3546
Extraction Date: 02/28/22 06:47
Cleanup Method: EPA 3620B
Cleanup Date: 03/01/22
Cleanup Method: EPA 3660B
Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.63	0.320	1	A
Lindane	ND		ug/kg	0.680	0.304	1	A
Alpha-BHC	ND		ug/kg	0.680	0.193	1	A
Beta-BHC	ND		ug/kg	1.63	0.619	1	A
Heptachlor	ND		ug/kg	0.816	0.366	1	A
Aldrin	ND		ug/kg	1.63	0.575	1	A
Endrin	ND		ug/kg	0.680	0.279	1	A
Dieldrin	ND		ug/kg	1.02	0.510	1	A
4,4'-DDE	ND		ug/kg	1.63	0.378	1	A
4,4'-DDD	ND		ug/kg	1.63	0.582	1	A
4,4'-DDT	ND		ug/kg	3.06	1.31	1	A
Endosulfan I	ND		ug/kg	1.63	0.386	1	A
Endosulfan II	ND		ug/kg	1.63	0.546	1	A
Endosulfan sulfate	ND		ug/kg	0.680	0.324	1	A
cis-Chlordane	ND		ug/kg	2.04	0.569	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	84		30-150	B

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-08
Client ID: COMP B SAND 2
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:20
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 03/01/22 17:03
Analyst: EJL
Percent Solids: 96%
Methylation Date: 03/01/22 05:56

Extraction Method: EPA 8151A
Extraction Date: 02/28/22 07:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	171	4.54	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	96		30-150	A
DCAA	83		30-150	B

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 03/02/22 13:28
Analyst: MSF

Extraction Method: EPA 3546
Extraction Date: 02/28/22 06:47
Cleanup Method: EPA 3620B
Cleanup Date: 03/01/22
Cleanup Method: EPA 3660B
Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 07-08 Batch: WG1609587-1						
Delta-BHC	ND		ug/kg	1.53	0.300	A
Lindane	ND		ug/kg	0.637	0.285	A
Alpha-BHC	ND		ug/kg	0.637	0.181	A
Beta-BHC	ND		ug/kg	1.53	0.580	A
Heptachlor	ND		ug/kg	0.765	0.343	A
Aldrin	ND		ug/kg	1.53	0.538	A
Endrin	ND		ug/kg	0.637	0.261	A
Dieldrin	ND		ug/kg	0.956	0.478	A
4,4'-DDE	ND		ug/kg	1.53	0.354	A
4,4'-DDD	ND		ug/kg	1.53	0.546	A
4,4'-DDT	ND		ug/kg	2.87	1.23	A
Endosulfan I	ND		ug/kg	1.53	0.361	A
Endosulfan II	ND		ug/kg	1.53	0.511	A
Endosulfan sulfate	ND		ug/kg	0.637	0.303	A
cis-Chlordane	ND		ug/kg	1.91	0.533	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	56		30-150	B

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 03/01/22 08:31
Analyst: EJL

Extraction Method: EPA 8151A
Extraction Date: 02/28/22 07:41

Methylation Date: 03/01/22 05:56

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 07-08 Batch: WG1609606-1						
2,4,5-TP (Silvex)	ND		ug/kg	164	4.36	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	100		30-150	A
DCAA	80		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 07-08 Batch: WG1609587-2 WG1609587-3									
Delta-BHC	58		80		30-150	**32**	Q	30	A
Lindane	72		94		30-150	27		30	A
Alpha-BHC	79		103		30-150	26		30	A
Beta-BHC	79		93		30-150	16		30	A
Heptachlor	77		98		30-150	24		30	A
Aldrin	74		96		30-150	26		30	A
Endrin	76		100		30-150	27		30	A
Dieldrin	79		104		30-150	27		30	A
4,4'-DDE	68		91		30-150	29		30	A
4,4'-DDD	84		111		30-150	28		30	A
4,4'-DDT	74		99		30-150	29		30	A
Endosulfan I	71		92		30-150	26		30	A
Endosulfan II	75		98		30-150	27		30	A
Endosulfan sulfate	60		81		30-150	30		30	A
cis-Chlordane	58		73		30-150	23		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		94		30-150	A
Decachlorobiphenyl	80		112		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		91		30-150	B
Decachlorobiphenyl	77		107		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: NATIONAL GRID PLE20

Project Number: 22-15

Lab Number: L2208119

Report Date: 03/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 07-08 Batch: WG1609606-2 WG1609606-3									
2,4,5-TP (Silvex)	89		85		30-150	5		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	99		99		30-150	A
DCAA	91		90		30-150	B

METALS

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-07 Date Collected: 02/16/22 12:18

Client ID: COMP B SAND 1 Date Received: 02/16/22

Sample Location: 7990 MAIN ST, TROY, NY 12180 Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	9060		mg/kg	7.82	2.11	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Antimony, Total	0.516	J	mg/kg	3.91	0.297	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Arsenic, Total	1.41		mg/kg	0.782	0.163	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Barium, Total	17.4		mg/kg	0.782	0.136	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Beryllium, Total	0.211	J	mg/kg	0.391	0.026	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Cadmium, Total	0.540	J	mg/kg	0.782	0.077	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Calcium, Total	1460		mg/kg	7.82	2.74	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Chromium, Total	21.1		mg/kg	0.782	0.075	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Cobalt, Total	5.74		mg/kg	1.56	0.130	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Copper, Total	ND		mg/kg	0.782	0.202	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Iron, Total	18700		mg/kg	3.91	0.706	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Lead, Total	1.51	J	mg/kg	3.91	0.210	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Magnesium, Total	9040		mg/kg	7.82	1.20	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Manganese, Total	367		mg/kg	0.782	0.124	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.065	0.042	1	02/22/22 16:20	03/02/22 14:23	EPA 7471B	1,7471B	AC
Nickel, Total	8.32		mg/kg	1.96	0.189	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Potassium, Total	334		mg/kg	196	11.3	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	1.56	0.202	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.782	0.221	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Sodium, Total	80.5	J	mg/kg	156	2.46	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.56	0.246	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Vanadium, Total	21.1		mg/kg	0.782	0.159	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV
Zinc, Total	32.8		mg/kg	3.91	0.229	2	02/22/22 16:02	03/03/22 23:04	EPA 3050B	1,6010D	BV

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-08 Date Collected: 02/16/22 12:20

Client ID: COMP B SAND 2 Date Received: 02/16/22

Sample Location: 7990 MAIN ST, TROY, NY 12180 Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	7390		mg/kg	7.89	2.13	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Antimony, Total	0.552	J	mg/kg	3.94	0.300	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Arsenic, Total	1.14		mg/kg	0.789	0.164	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Barium, Total	12.6		mg/kg	0.789	0.137	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Beryllium, Total	0.166	J	mg/kg	0.394	0.026	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Cadmium, Total	0.442	J	mg/kg	0.789	0.077	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Calcium, Total	1250		mg/kg	7.89	2.76	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Chromium, Total	16.9		mg/kg	0.789	0.076	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Cobalt, Total	4.73		mg/kg	1.58	0.131	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Copper, Total	ND		mg/kg	0.789	0.204	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Iron, Total	15300		mg/kg	3.94	0.712	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Lead, Total	1.25	J	mg/kg	3.94	0.211	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Magnesium, Total	7460		mg/kg	7.89	1.22	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Manganese, Total	292		mg/kg	0.789	0.125	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Mercury, Total	ND		mg/kg	0.069	0.045	1	02/22/22 16:20	03/02/22 14:26	EPA 7471B	1,7471B	AC
Nickel, Total	6.79		mg/kg	1.97	0.191	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Potassium, Total	279		mg/kg	197	11.4	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Selenium, Total	ND		mg/kg	1.58	0.204	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.789	0.223	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Sodium, Total	62.4	J	mg/kg	158	2.48	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Thallium, Total	ND		mg/kg	1.58	0.248	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Vanadium, Total	17.2		mg/kg	0.789	0.160	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV
Zinc, Total	27.0		mg/kg	3.94	0.231	2	02/22/22 16:02	03/03/22 23:09	EPA 3050B	1,6010D	BV

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 07-08 Batch: WG1607432-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Antimony, Total	ND		mg/kg	2.00	0.152	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Arsenic, Total	ND		mg/kg	0.400	0.083	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Barium, Total	ND		mg/kg	0.400	0.070	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Beryllium, Total	ND		mg/kg	0.200	0.013	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Cadmium, Total	ND		mg/kg	0.400	0.039	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Calcium, Total	ND		mg/kg	4.00	1.40	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Chromium, Total	ND		mg/kg	0.400	0.038	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Cobalt, Total	ND		mg/kg	0.800	0.066	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Copper, Total	ND		mg/kg	0.400	0.103	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Iron, Total	2.37		mg/kg	2.00	0.361	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Lead, Total	ND		mg/kg	2.00	0.107	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Magnesium, Total	ND		mg/kg	4.00	0.616	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Manganese, Total	ND		mg/kg	0.400	0.064	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Nickel, Total	ND		mg/kg	1.00	0.097	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Potassium, Total	ND		mg/kg	100	5.76	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Selenium, Total	ND		mg/kg	0.800	0.103	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Silver, Total	ND		mg/kg	0.400	0.113	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Sodium, Total	26.3	J	mg/kg	80.0	1.26	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Thallium, Total	ND		mg/kg	0.800	0.126	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Vanadium, Total	ND		mg/kg	0.400	0.081	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Zinc, Total	ND		mg/kg	2.00	0.117	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 07-08 Batch: WG1607434-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	02/22/22 16:20	03/02/22 14:03	1,7471B	AC

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15

Lab Number: L2208119
Report Date: 03/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07-08 Batch: WG1607432-2 SRM Lot Number: D113-540								
Aluminum, Total	75		-		51-149	-		
Antimony, Total	149		-		20-250	-		
Arsenic, Total	99		-		70-130	-		
Barium, Total	94		-		75-125	-		
Beryllium, Total	101		-		75-125	-		
Cadmium, Total	99		-		75-125	-		
Calcium, Total	95		-		73-128	-		
Chromium, Total	98		-		70-130	-		
Cobalt, Total	102		-		75-125	-		
Copper, Total	96		-		75-125	-		
Iron, Total	98		-		36-164	-		
Lead, Total	97		-		72-128	-		
Magnesium, Total	89		-		63-138	-		
Manganese, Total	97		-		77-123	-		
Nickel, Total	99		-		70-130	-		
Potassium, Total	88		-		59-141	-		
Selenium, Total	99		-		66-134	-		
Silver, Total	99		-		70-131	-		
Sodium, Total	105		-		35-164	-		
Thallium, Total	96		-		70-130	-		
Vanadium, Total	98		-		74-126	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07-08 Batch: WG1607432-2 SRM Lot Number: D113-540					
Zinc, Total	97	-	70-130	-	
Total Metals - Mansfield Lab Associated sample(s): 07-08 Batch: WG1607434-2 SRM Lot Number: D113-540					
Mercury, Total	103	-	60-140	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07-08 QC Batch ID: WG1607432-3 QC Sample: L2208221-01 Client ID: MS Sample												
Aluminum, Total	6940	196	7600	**336**	Q	-	-		75-125	-		20
Antimony, Total	0.462J	49.1	38.0	77		-	-		75-125	-		20
Arsenic, Total	4.65	11.8	14.8	86		-	-		75-125	-		20
Barium, Total	30.2	196	206	89		-	-		75-125	-		20
Beryllium, Total	0.246	4.91	4.59	93		-	-		75-125	-		20
Cadmium, Total	0.491	5.21	4.70	90		-	-		75-125	-		20
Calcium, Total	3770	982	4240	**48**	Q	-	-		75-125	-		20
Chromium, Total	6.17	19.6	22.1	81		-	-		75-125	-		20
Cobalt, Total	2.80	49.1	42.1	80		-	-		75-125	-		20
Copper, Total	8.13	24.6	29.0	85		-	-		75-125	-		20
Iron, Total	10500	98.2	10300	**0**	Q	-	-		75-125	-		20
Lead, Total	28.6	52.1	67.7	75		-	-		75-125	-		20
Magnesium, Total	1220	982	1990	78		-	-		75-125	-		20
Manganese, Total	95.3	49.1	152	115		-	-		75-125	-		20
Nickel, Total	7.08	49.1	45.8	79		-	-		75-125	-		20
Potassium, Total	157	982	1020	88		-	-		75-125	-		20
Selenium, Total	0.437J	11.8	10.4	88		-	-		75-125	-		20
Silver, Total	ND	29.5	25.7	87		-	-		75-125	-		20
Sodium, Total	61.8J	982	954	97		-	-		75-125	-		20
Thallium, Total	ND	11.8	8.92	76		-	-		75-125	-		20
Vanadium, Total	15.1	49.1	55.8	83		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15

Lab Number: L2208119
Report Date: 03/06/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07-08 QC Batch ID: WG1607432-3 QC Sample: L2208221-01 Client ID: MS Sample										
Zinc, Total	43.4	49.1	86.2	87		-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 07-08 QC Batch ID: WG1607434-3 QC Sample: L2208221-01 Client ID: MS Sample										
Mercury, Total	0.074J	0.17	0.217	**127**	Q	-	-	80-120	-	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15

Lab Number: L2208119
Report Date: 03/06/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07-08 QC Batch ID: WG1607432-4 QC Sample: L2208221-01 Client ID: DUP Sample						
Arsenic, Total	4.65	4.63	mg/kg	0		20
Barium, Total	30.2	29.6	mg/kg	2		20
Beryllium, Total	0.246	0.238J	mg/kg	NC		20
Cadmium, Total	0.491	0.505	mg/kg	3		20
Chromium, Total	6.17	6.08	mg/kg	1		20
Copper, Total	8.13	8.48	mg/kg	4		20
Lead, Total	28.6	30.5	mg/kg	6		20
Manganese, Total	95.3	104	mg/kg	9		20
Nickel, Total	7.08	6.98	mg/kg	1		20
Selenium, Total	0.437J	0.447J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Zinc, Total	43.4	44.3	mg/kg	2		20
Total Metals - Mansfield Lab Associated sample(s): 07-08 QC Batch ID: WG1607434-4 QC Sample: L2208221-01 Client ID: DUP Sample						
Mercury, Total	0.074J	0.076J	mg/kg	NC		20

Project Name: NATIONAL GRID PLE20
Project Number: 22-15

Lab Serial Dilution Analysis
Batch Quality Control

Lab Number: L2208119
Report Date: 03/06/22

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 07-08 QC Batch ID: WG1607432-6 QC Sample: L2208221-01 Client ID: DUP Sample						
Barium, Total	30.2	34.8	mg/kg	15		20
Manganese, Total	95.3	112	mg/kg	18		20

INORGANICS
&
MISCELLANEOUS

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-01
Client ID: B SAND 1
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:10
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	97.0		%	0.100	NA	1	-	02/17/22 12:57	121,2540G	RI

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-02
Client ID: B SAND 2
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:11
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.7		%	0.100	NA	1	-	02/17/22 12:57	121,2540G	RI

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-03
Client ID: B SAND 3
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:12
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.3		%	0.100	NA	1	-	02/17/22 12:57	121,2540G	RI

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-04
Client ID: B SAND 4
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:13
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.4		%	0.100	NA	1	-	02/17/22 12:57	121,2540G	RI

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-05
Client ID: B SAND 5
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:14
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	97.6		%	0.100	NA	1	-	02/17/22 12:57	121,2540G	RI

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-06
Client ID: B SAND 6
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:16
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.1		%	0.100	NA	1	-	02/17/22 12:57	121,2540G	RI

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-07
Client ID: COMP B SAND 1
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:18
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.9		%	0.100	NA	1	-	02/17/22 12:57	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.21	1	02/22/22 15:30	02/23/22 10:02	1,9010C/9012B	CS
Cyanide, Amenable	ND		mg/kg	1.0	1.0	1	02/23/22 15:10	02/24/22 10:42	1,9010C	JR

Project Name: NATIONAL GRID PLE20
Project Number: 22-15
Lab Number: L2208119
Report Date: 03/06/22

SAMPLE RESULTS

Lab ID: L2208119-08
Client ID: COMP B SAND 2
Sample Location: 7990 MAIN ST, TROY, NY 12180

Date Collected: 02/16/22 12:20
Date Received: 02/16/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.3		%	0.100	NA	1	-	02/17/22 12:57	121,2540G	RI
Cyanide, Total	ND		mg/kg	0.96	0.20	1	02/22/22 15:30	02/23/22 10:03	1,9010C/9012B	CS
Cyanide, Amenable	ND		mg/kg	1.0	1.0	1	02/23/22 15:10	02/24/22 10:42	1,9010C	JR

Project Name: NATIONAL GRID PLE20 **Lab Number:** L2208119

Project Number: 22-15 **Report Date:** 03/06/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 07-08 Batch: WG1607734-1										
Cyanide, Total	ND		mg/kg	0.87	0.18	1	02/22/22 15:30	02/23/22 09:33	1,9010C/9012B	CS
General Chemistry - Westborough Lab for sample(s): 07-08 Batch: WG1608313-1										
Cyanide, Amenable	ND		mg/kg	1.0	1.0	1	02/23/22 15:10	02/24/22 10:42	1,9010C	JR

Lab Control Sample Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15

Lab Number: L2208119
Report Date: 03/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 07-08 Batch: WG1607734-2 WG1607734-3								
Cyanide, Total	**73**	Q	**68**	Q	80-120	23		35
General Chemistry - Westborough Lab Associated sample(s): 07-08 Batch: WG1608313-2								
Cyanide, Amenable	100		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: NATIONAL GRID PLE20
Project Number: 22-15

Lab Number: L2208119
Report Date: 03/06/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 07-08 QC Batch ID: WG1607734-4 WG1607734-5 QC Sample: L2207938-04 Client ID: MS Sample												
Cyanide, Total	0.46J	12	12	98		10	82		75-125	18		35

Lab Duplicate Analysis

Batch Quality Control

Project Name: NATIONAL GRID PLE20

Project Number: 22-15

Lab Number: L2208119

Report Date: 03/06/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1606075-1 QC Sample: L2208119-01 Client ID: B SAND 1						
Solids, Total	97.0	97.4	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 07-08 QC Batch ID: WG1608313-3 QC Sample: L2208119-07 Client ID: COMP B SAND 1						
Cyanide, Amenable	ND	ND	mg/kg	NC		30

Project Name: NATIONAL GRID PLE20
Project Number: 22-15

Lab Number: L2208119
Report Date: 03/06/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2208119-01A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L2208119-01B	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-01X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-01Y	Vial Water preserved split	A	NA		2.9	Y	Absent	**22-FEB-22 12:46**	NYTCL-8260-R2(14)
L2208119-01Z	Vial Water preserved split	A	NA		2.9	Y	Absent	**22-FEB-22 12:46**	NYTCL-8260-R2(14)
L2208119-02A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L2208119-02B	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-02X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-02Y	Vial Water preserved split	A	NA		2.9	Y	Absent	**22-FEB-22 12:46**	NYTCL-8260-R2(14)
L2208119-02Z	Vial Water preserved split	A	NA		2.9	Y	Absent	**22-FEB-22 12:46**	NYTCL-8260-R2(14)
L2208119-03A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L2208119-03B	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-03X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-03Y	Vial Water preserved split	A	NA		2.9	Y	Absent	**22-FEB-22 12:46**	NYTCL-8260-R2(14)
L2208119-03Z	Vial Water preserved split	A	NA		2.9	Y	Absent	**22-FEB-22 12:46**	NYTCL-8260-R2(14)
L2208119-04A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L2208119-04B	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-04X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-04Y	Vial Water preserved split	A	NA		2.9	Y	Absent	**22-FEB-22 12:46**	NYTCL-8260-R2(14)
L2208119-04Z	Vial Water preserved split	A	NA		2.9	Y	Absent	**22-FEB-22 12:46**	NYTCL-8260-R2(14)
L2208119-05A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L2208119-05B	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-05X	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: NATIONAL GRID PLE20
Project Number: 22-15

Lab Number: L2208119
Report Date: 03/06/22

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2208119-05Y	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-05Z	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-06A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L2208119-06B	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-06X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2208119-06Y	Vial Water preserved split	A	NA		2.9	Y	Absent	**22-FEB-22 12:46**	NYTCL-8260-R2(14)
L2208119-06Z	Vial Water preserved split	A	NA		2.9	Y	Absent	**22-FEB-22 12:46**	NYTCL-8260-R2(14)
L2208119-07A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L2208119-07B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),CR-TI(180),ZN-TI(180),CU-TI(180),SE-TI(180),SB-TI(180),PB-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MG-TI(180),HG-T(28),MN-TI(180),K-TI(180),CA-TI(180),CD-TI(180),NA-TI(180)
L2208119-07C	Glass 500ml/16oz unpreserved	A	NA		2.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(365),ACN-9010(14)
L2208119-08A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L2208119-08B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),PB-TI(180),V-TI(180),CO-TI(180),MG-TI(180),MN-TI(180),FE-TI(180),HG-T(28),NA-TI(180),CA-TI(180),CD-TI(180),K-TI(180)
L2208119-08C	Glass 500ml/16oz unpreserved	A	NA		2.9	Y	Absent		TCN-9010(14),NYTCL-8270(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(365),ACN-9010(14)

*Values in parentheses indicate holding time in days

Project Name:	NATIONAL GRID PLE20	**Lab Number:**	L2208119
Project Number:	22-15	**Report Date:**	03/06/22

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	NATIONAL GRID PLE20	**Lab Number:**	L2208119
Project Number:	22-15	**Report Date:**	03/06/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	NATIONAL GRID PLE20	**Lab Number:**	L2208119
Project Number:	22-15	**Report Date:**	03/06/22

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	NATIONAL GRID PLE20	**Lab Number:**	L2208119
Project Number:	22-15	**Report Date:**	03/06/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 2/17/22

ALPHA Job #: L2208449

Client Information

Client: J. MULLEN AND SONS INC
Address: 997 KINGS HIGHWAY
SAUGERTIES, NY 12477
Phone: 845-417-8023
Fax: 845-247-0465
Email: joeihm@jmullenandsons.com

Project Information

Project Name: NATIONAL GRID PLE20
Project Location: 7990 MAIN ST, TROY, NY 12180
Project #: 22-15
(Use Project name as Project #) ☐
Project Manager: JOE MIHM
ALPHAQuote #: Q17647

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☒ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use 375-6.8b COMMERCIAL & PROTECTION OF GW
☐ NYC Sewer Discharge

Billing Information

☒ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

TCL, TOTAL & AMENABLE CYANIDE

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL VOC/SVOCS EPA 8260	SVOC, METALS CYANIDE PCB PESTICIDES HERBICIDES							Sample Specific Comments	Total # of Bottles
08119-01	BSAND 1	2/16/22	12:10	SAND	JSM	X									
-02	BSAND 2	2/16/22	12:11	↓	JSM	X									
-03	BSAND 3	2/16/22	12:12	↓	JSM	X									
-04	BSAND 4	2/16/22	12:13	↓	JSM	X									
-05	BSAND 5	2/16/22	12:14	↓	JSM	X									
-06	BSAND 6	2/16/22	12:16	↓	JSM	X									
-07	COMP BSAND 1	2/16/22	12:18	↓	JSM		X								
-08	COMP BSAND 2	2/16/22	12:20	↓	JSM		X								

Container Type	A&P	A&2P									
Preservative											

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
D = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Joseph E Mihm	2/16/22 12:37	B. Lyons 2-16-22	12:37 AM
B. Lyons 2/16/22	15:57		2/17/22 0020

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Job Number: 410-73309-1

Job Description: Troy PL E20

For:
Brown and Caldwell
500 North Franklin Turnpike
Suite 306
Ramsey, NJ 07446

Attention: Mr. James L Marolda

Barb Weyandt

Approved for release.
Barbara A Weyandt
Project Manager
3/3/2022 10:28 AM

Barbara A Weyandt, Project Manager
2425 New Holland Pike, Lancaster, PA, 17601
(717)556-7264
Barbara.Weyandt@eurofinset.com
03/03/2022

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

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

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike, Lancaster, PA 17601
Tel (717) 656-2300 Fax (717) 656-2681 www.EurofinsUS.com

Job Number: 410-73309-1

Job Description: Troy PL E20

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Job Narrative
410-73309-1

Receipt
The samples were received on 2/17/2022 11:39 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

PFAS
Method PFC_IDA: The labeled isotope recovery is outside of the QC acceptance limits in the laboratory control spike sample associated with the following sample: FB-20220216 (410-73309-4). Since the recovery is biased high and the associated target analyte is within the QC limits, the data is reported.

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

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

Sample Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-73309-1	Import-1-20220216	Solid	02/16/22 12:20	02/17/22 11:39
410-73309-2	Import-2-20220216	Solid	02/16/22 12:30	02/17/22 11:39
410-73309-3	DUP-20220216	Solid	02/16/22 00:00	02/17/22 11:39
410-73309-4	FB-20220216	Water	02/16/22 12:35	02/17/22 11:39

Eurofins Lancaster Laboratories, LLC
03/03/2022

Detection Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Client Sample ID: Import-1-20220216 — Lab Sample ID: 410-73309-1

No Detections.

Client Sample ID: Import-2-20220216 — Lab Sample ID: 410-73309-2

No Detections.

Client Sample ID: DUP-20220216 — Lab Sample ID: 410-73309-3

No Detections.

Client Sample ID: FB-20220216 — Lab Sample ID: 410-73309-4

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
Moisture	Percent Moisture	EPA	ELLE
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Client Sample ID: Import-1-20220216

Lab Sample ID: 410-73309-1

Date Collected: 02/16/22 12:20
Matrix: Solid
Date Received: 02/17/22 11:39

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.5		1.0	1.0	%			02/18/22 12:50	1
Percent Solids	96.5		1.0	1.0	%			02/18/22 12:50	1

Client Sample ID: Import-1-20220216

Lab Sample ID: 410-73309-1

Date Collected: 02/16/22 12:20
Matrix: Solid
Date Received: 02/17/22 11:39
Percent Solids: 96.5

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluoroheptanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorooctanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorononanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorodecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorotridecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorotetradecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorobutanesulfonic acid	ND		0.21	0.041	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorohexanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorooctanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
NEtFOSAA	ND		0.21	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
NMeFOSAA	ND		0.21	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluoroheptanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorodecanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorooctanesulfonamide	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorobutanoic acid	ND		0.21	0.083	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluoroundecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluorododecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
6:2 Fluorotelomer sulfonic acid	ND		0.21	0.062	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
8:2 Fluorotelomer sulfonic acid	ND		0.31	0.062	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1
Perfluoropentanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*70*		*15 - 200*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
M2-6:2 FTS	*83*		*10 - 200*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C5 PFHxA	*67*		*10 - 174*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C4 PFHpA	*68*		*10 - 178*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C8 PFOA	*69*		*26 - 159*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C9 PFNA	*65*		*26 - 165*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C6 PFDA	*65*		*26 - 161*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C7 PFUnA	*67*		*12 - 173*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C2-PFDoDA	*62*		*11 - 166*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C2 PFTeDA	*62*		*10 - 169*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C3 PFBS	*71*		*27 - 179*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C3 PFHxS	*69*		*24 - 171*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C8 PFOS	*67*		*41 - 154*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
d3-NMeFOSAA	*53*		*10 - 178*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
d5-NEtFOSAA	*64*		*10 - 193*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C8 FOSA	*60*		*14 - 163*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C4 PFBA	*65*		*28 - 153*	*03/01/22 07:26*	*03/02/22 11:00*	*1*
13C5 PFPeA	*66*		*24 - 161*	*03/01/22 07:26*	*03/02/22 11:00*	*1*

Client Sample ID: Import-2-20220216 — Lab Sample ID: 410-73309-2

Date Collected: 02/16/22 12:30 — **Matrix: Solid**
Date Received: 02/17/22 11:39

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.4		1.0	1.0	%			02/18/22 12:50	1
Percent Solids	96.6		1.0	1.0	%			02/18/22 12:50	1

Client Sample ID: Import-2-20220216 — Lab Sample ID: 410-73309-2

Date Collected: 02/16/22 12:30 — **Matrix: Solid**
Date Received: 02/17/22 11:39 — **Percent Solids: 96.6**

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluoroheptanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorooctanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorononanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorodecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorotridecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorotetradecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorobutanesulfonic acid	ND		0.21	0.041	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorohexanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorooctanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
NEtFOSAA	ND		0.21	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
NMeFOSAA	ND		0.21	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluoroheptanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorodecanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorooctanesulfonamide	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorobutanoic acid	ND		0.21	0.082	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluoroundecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluorododecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
6:2 Fluorotelomer sulfonic acid	ND		0.21	0.062	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
8:2 Fluorotelomer sulfonic acid	ND		0.31	0.062	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1
Perfluoropentanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*97*		*15 - 200*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
M2-6:2 FTS	*109*		*10 - 200*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C5 PFHxA	*90*		*10 - 174*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C4 PFHpA	*95*		*10 - 178*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C8 PFOA	*98*		*26 - 159*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C9 PFNA	*88*		*26 - 165*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C6 PFDA	*93*		*26 - 161*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C7 PFUnA	*92*		*12 - 173*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C2-PFDoDA	*83*		*11 - 166*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C2 PFTeDA	*85*		*10 - 169*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C3 PFBS	*91*		*27 - 179*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C3 PFHxS	*95*		*24 - 171*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C8 PFOS	*91*		*41 - 154*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
d3-NMeFOSAA	*74*		*10 - 178*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
d5-NEtFOSAA	*88*		*10 - 193*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C8 FOSA	*78*		*14 - 163*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C4 PFBA	*88*		*28 - 153*	*03/01/22 07:26*	*03/02/22 11:33*	*1*
13C5 PFPeA	*89*		*24 - 161*	*03/01/22 07:26*	*03/02/22 11:33*	*1*

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Client Sample ID: DUP-20220216

Lab Sample ID: 410-73309-3

Date Collected: 02/16/22 00:00
Matrix: Solid
Date Received: 02/17/22 11:39

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.4		1.0	1.0	%			02/18/22 12:50	1
Percent Solids	96.6		1.0	1.0	%			02/18/22 12:50	1

Client Sample ID: DUP-20220216

Lab Sample ID: 410-73309-3

Date Collected: 02/16/22 00:00
Matrix: Solid
Date Received: 02/17/22 11:39
Percent Solids: 96.6

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluoroheptanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorooctanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorononanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorodecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorotridecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorotetradecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorobutanesulfonic acid	ND		0.21	0.041	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorohexanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorooctanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
NEtFOSAA	ND		0.21	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
NMeFOSAA	ND		0.21	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluoroheptanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorodecanesulfonic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorooctanesulfonamide	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorobutanoic acid	ND		0.21	0.083	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluoroundecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluorododecanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
6:2 Fluorotelomer sulfonic acid	ND		0.21	0.062	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
8:2 Fluorotelomer sulfonic acid	ND		0.31	0.062	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1
Perfluoropentanoic acid	ND		0.062	0.021	ng/g	☼	03/01/22 07:26	03/02/22 11:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*97*		*15 - 200*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
M2-6:2 FTS	*110*		*10 - 200*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C5 PFHxA	*97*		*10 - 174*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C4 PFHpA	*101*		*10 - 178*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C8 PFOA	*101*		*26 - 159*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C9 PFNA	*91*		*26 - 165*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C6 PFDA	*93*		*26 - 161*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C7 PFUnA	*90*		*12 - 173*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C2-PFDoDA	*93*		*11 - 166*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C2 PFTeDA	*88*		*10 - 169*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C3 PFBS	*97*		*27 - 179*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C3 PFHxS	*100*		*24 - 171*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C8 PFOS	*93*		*41 - 154*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
d3-NMeFOSAA	*72*		*10 - 178*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
d5-NEtFOSAA	*82*		*10 - 193*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C8 FOSA	*82*		*14 - 163*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C4 PFBA	*91*		*28 - 153*	*03/01/22 07:26*	*03/02/22 11:44*	*1*
13C5 PFPeA	*92*		*24 - 161*	*03/01/22 07:26*	*03/02/22 11:44*	*1*

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Client Sample ID: FB-20220216

Date Collected: 02/16/22 12:35
Date Received: 02/17/22 11:39

Lab Sample ID: 410-73309-4

Matrix: Water

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluoroheptanoic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorooctanoic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorononanoic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorodecanoic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorotridecanoic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorotetradecanoic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorobutanesulfonic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorohexanesulfonic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorooctanesulfonic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
NEtFOSAA	ND	cn	3.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
NMeFOSAA	ND	cn	2.0	0.59	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluoroheptanesulfonic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorodecanesulfonic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorooctanesulfonamide	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorobutanoic acid	ND	cn	4.9	2.0	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluoroundecanoic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluorododecanoic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1
6:2 Fluorotelomer sulfonic acid	ND	cn	4.9	2.0	ng/L		02/22/22 07:11	02/23/22 09:35	1
8:2 Fluorotelomer sulfonic acid	ND	cn	3.0	0.99	ng/L		02/22/22 07:11	02/23/22 09:35	1
Perfluoropentanoic acid	ND	cn	2.0	0.49	ng/L		02/22/22 07:11	02/23/22 09:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*135*	*cn*	*33 - 200*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
M2-6:2 FTS	*150*	*cn*	*17 - 200*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C5 PFHxA	*160*	*cn*	*24 - 179*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C4 PFHpA	*165*	*cn*	*31 - 182*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C8 PFOA	*153*	*cn*	*48 - 162*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C9 PFNA	*156*	*cn*	*51 - 167*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C6 PFDA	*156*	*cn*	*49 - 163*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C7 PFUnA	*157*	*cn*	*34 - 174*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C2-PFDoDA	*146*	*cn*	*17 - 176*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C2 PFTeDA	*140*	*cn*	*10 - 179*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C3 PFBS	*147*	*cn*	*16 - 200*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C3 PFHxS	*161*	*cn*	*28 - 188*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C8 PFOS	*158*	*cn*	*51 - 159*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
d3-NMeFOSAA	*150*	*cn*	*31 - 174*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
d5-NEtFOSAA	*156*	*cn*	*29 - 195*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C8 FOSA	*129*	*cn*	*10 - 168*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C4 PFBA	*146*	*cn*	*42 - 165*	*02/22/22 07:11*	*02/23/22 09:35*	*1*
13C5 PFPeA	*151*	*cn*	*38 - 187*	*02/22/22 07:11*	*02/23/22 09:35*	*1*

Isotope Dilution Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (15-200)	M262FTS (10-200)	13C5PHA (10-174)	C4PFHA (10-178)	C8PFOA (26-159)	C9PFNA (26-165)	C6PFDA (26-161)	13C7PUA (12-173)
410-73309-1	Import-1-20220216	70	83	67	68	69	65	65	67
410-73309-1 MS	Import-1-20220216	94	97	83	83	85	77	90	87
410-73309-1 MSD	Import-1-20220216	114	117	100	107	103	98	106	107
410-73309-2	Import-2-20220216	97	109	90	95	98	88	93	92
410-73309-3	DUP-20220216	97	110	97	101	101	91	93	90
LCS 410-228569/2-B	Lab Control Sample	104	106	88	87	92	88	89	89
MB 410-228569/1-B	Method Blank	103	110	94	93	96	86	93	95

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoDA (11-166)	PFTDA (10-169)	C3PFBS (27-179)	C3PFHS (24-171)	C8PFOS (41-154)	d3NMFOS (10-178)	d5NEFOS (10-193)	PFOSA (14-163)
410-73309-1	Import-1-20220216	62	62	71	69	67	53	64	60
410-73309-1 MS	Import-1-20220216	85	82	89	83	83	76	86	82
410-73309-1 MSD	Import-1-20220216	100	99	111	110	102	89	105	90
410-73309-2	Import-2-20220216	83	85	91	95	91	74	88	78
410-73309-3	DUP-20220216	93	88	97	100	93	72	82	82
LCS 410-228569/2-B	Lab Control Sample	86	80	99	91	96	59	71	67
MB 410-228569/1-B	Method Blank	85	80	97	94	90	62	72	81

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	PFBA (28-153)	PFPeA (24-161)
410-73309-1	Import-1-20220216	65	66
410-73309-1 MS	Import-1-20220216	82	79
410-73309-1 MSD	Import-1-20220216	102	105
410-73309-2	Import-2-20220216	88	89
410-73309-3	DUP-20220216	91	92
LCS 410-228569/2-B	Lab Control Sample	88	92
MB 410-228569/1-B	Method Blank	87	88

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

Isotope Dilution Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	M262FTS	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	**Client Sample ID**	**(33-200)**	**(17-200)**	**(24-179)**	**(31-182)**	**(48-162)**	**(51-167)**	**(49-163)**	**(34-174)**
410-73309-4	FB-20220216	135 cn	150 cn	160 cn	165 cn	153 cn	156 cn	156 cn	157 cn
LCS 410-226178/2-A	Lab Control Sample	168	148	161	173	159	174 *5+	172 *5+	162
LCSD 410-226178/3-A	Lab Control Sample Dup	155	155	153	145	142	141	145	152
MB 410-226178/1-A	Method Blank	151	142	146	144	143	153	152	140

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS	PFOSA
Lab Sample ID	**Client Sample ID**	**(17-176)**	**(10-179)**	**(16-200)**	**(28-188)**	**(51-159)**	**(31-174)**	**(29-195)**	**(10-168)**
410-73309-4	FB-20220216	146 cn	140 cn	147 cn	161 cn	158 cn	150 cn	156 cn	129 cn
LCS 410-226178/2-A	Lab Control Sample	147	131	156	175	173 *5+	162	176	148
LCSD 410-226178/3-A	Lab Control Sample Dup	142	135	148	152	149	141	153	125
MB 410-226178/1-A	Method Blank	130	117	154	146	151	144	148	127

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		PFBA	PFPeA
Lab Sample ID	**Client Sample ID**	**(42-165)**	**(38-187)**
410-73309-4	FB-20220216	146 cn	151 cn
LCS 410-226178/2-A	Lab Control Sample	162	160
LCSD 410-226178/3-A	Lab Control Sample Dup	144	149
MB 410-226178/1-A	Method Blank	152	146

Surrogate Legend

M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-226178/1-A
Matrix: Water
Analysis Batch: 226634

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 226178

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluoroheptanoic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorooctanoic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorononanoic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorodecanoic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorotridecanoic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorotetradecanoic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorobutanesulfonic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorohexanesulfonic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorooctanesulfonic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
NEtFOSAA	ND		3.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
NMeFOSAA	ND		2.0	0.60	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluoroheptanesulfonic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorodecanesulfonic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorooctanesulfonamide	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorobutanoic acid	ND		5.0	2.0	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluoroundecanoic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluorododecanoic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1
6:2 Fluorotelomer sulfonic acid	ND		5.0	2.0	ng/L		02/22/22 07:11	02/23/22 08:51	1
8:2 Fluorotelomer sulfonic acid	ND		3.0	1.0	ng/L		02/22/22 07:11	02/23/22 08:51	1
Perfluoropentanoic acid	ND		2.0	0.50	ng/L		02/22/22 07:11	02/23/22 08:51	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*151*		*33 - 200*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
M2-6:2 FTS	*142*		*17 - 200*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C5 PFHxA	*146*		*24 - 179*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C4 PFHpA	*144*		*31 - 182*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C8 PFOA	*143*		*48 - 162*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C9 PFNA	*153*		*51 - 167*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C6 PFDA	*152*		*49 - 163*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C7 PFUnA	*140*		*34 - 174*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C2-PFDoDA	*130*		*17 - 176*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C2 PFTeDA	*117*		*10 - 179*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C3 PFBS	*154*		*16 - 200*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C3 PFHxS	*146*		*28 - 188*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C8 PFOS	*151*		*51 - 159*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
d3-NMeFOSAA	*144*		*31 - 174*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
d5-NEtFOSAA	*148*		*29 - 195*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C8 FOSA	*127*		*10 - 168*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C4 PFBA	*152*		*42 - 165*	*02/22/22 07:11*	*02/23/22 08:51*	*1*
13C5 PFPeA	*146*		*38 - 187*	*02/22/22 07:11*	*02/23/22 08:51*	*1*

Lab Sample ID: LCS 410-226178/2-A
Matrix: Water
Analysis Batch: 226634

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 226178

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.6	19.2		ng/L		75	58 - 139
Perfluoroheptanoic acid	25.6	19.3		ng/L		75	59 - 145

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-226178/2-A
Matrix: Water
Analysis Batch: 226634

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 226178

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid	25.6	20.6		ng/L		81	51 - 145
Perfluorononanoic acid	25.6	20.4		ng/L		80	61 - 139
Perfluorodecanoic acid	25.6	18.2		ng/L		71	56 - 138
Perfluorotridecanoic acid	25.6	19.9		ng/L		78	58 - 146
Perfluorotetradecanoic acid	25.6	20.5		ng/L		80	62 - 139
Perfluorobutanesulfonic acid	22.7	18.4		ng/L		81	53 - 138
Perfluorohexanesulfonic acid	23.3	17.3		ng/L		74	58 - 134
Perfluorooctanesulfonic acid	23.7	18.3		ng/L		77	45 - 150
NEtFOSAA	25.6	19.8		ng/L		77	55 - 134
NMeFOSAA	25.6	19.8		ng/L		77	59 - 140
Perfluoroheptanesulfonic acid	24.4	18.6		ng/L		76	56 - 140
Perfluorodecanesulfonic acid	24.7	17.9		ng/L		72	55 - 137
Perfluorooctanesulfonamide	25.6	24.3		ng/L		95	43 - 167
Perfluorobutanoic acid	25.6	18.0		ng/L		70	59 - 136
Perfluoroundecanoic acid	25.6	20.8		ng/L		81	60 - 141
Perfluorododecanoic acid	25.6	19.7		ng/L		77	59 - 143
6:2 Fluorotelomer sulfonic acid	24.3	22.0		ng/L		90	28 - 173
8:2 Fluorotelomer sulfonic acid	24.5	18.8		ng/L		77	55 - 138
Perfluoropentanoic acid	25.6	19.3		ng/L		75	57 - 141

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-8:2 FTS	*168*		*33 - 200*
M2-6:2 FTS	*148*		*17 - 200*
13C5 PFHxA	*161*		*24 - 179*
13C4 PFHpA	*173*		*31 - 182*
13C8 PFOA	*159*		*48 - 162*
13C9 PFNA	*174*	**5+*	*51 - 167*
13C6 PFDA	*172*	**5+*	*49 - 163*
13C7 PFUnA	*162*		*34 - 174*
13C2-PFDoDA	*147*		*17 - 176*
13C2 PFTeDA	*131*		*10 - 179*
13C3 PFBS	*156*		*16 - 200*
13C3 PFHxS	*175*		*28 - 188*
13C8 PFOS	*173*	**5+*	*51 - 159*
d3-NMeFOSAA	*162*		*31 - 174*
d5-NEtFOSAA	*176*		*29 - 195*
13C8 FOSA	*148*		*10 - 168*
13C4 PFBA	*162*		*42 - 165*
13C5 PFPeA	*160*		*38 - 187*

Lab Sample ID: LCSD 410-226178/3-A
Matrix: Water
Analysis Batch: 226634

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 226178

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid	25.6	20.9		ng/L		82	58 - 139	8	30
Perfluoroheptanoic acid	25.6	22.3		ng/L		87	59 - 145	14	30
Perfluorooctanoic acid	25.6	24.3		ng/L		95	51 - 145	16	30
Perfluorononanoic acid	25.6	21.9		ng/L		86	61 - 139	7	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-226178/3-A
Matrix: Water
Analysis Batch: 226634

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 226178

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorodecanoic acid	25.6	21.1		ng/L		82	56 - 138	14	30
Perfluorotridecanoic acid	25.6	21.6		ng/L		85	58 - 146	8	30
Perfluorotetradecanoic acid	25.6	21.5		ng/L		84	62 - 139	5	30
Perfluorobutanesulfonic acid	22.7	19.8		ng/L		88	53 - 138	7	30
Perfluorohexanesulfonic acid	23.3	18.5		ng/L		79	58 - 134	7	30
Perfluorooctanesulfonic acid	23.7	19.2		ng/L		81	45 - 150	5	30
NEtFOSAA	25.6	21.2		ng/L		83	55 - 134	7	30
NMeFOSAA	25.6	22.2		ng/L		87	59 - 140	12	30
Perfluoroheptanesulfonic acid	24.4	22.2		ng/L		91	56 - 140	17	30
Perfluorodecanesulfonic acid	24.7	18.0		ng/L		73	55 - 137	1	30
Perfluorooctanesulfonamide	25.6	28.4		ng/L		111	43 - 167	15	30
Perfluorobutanoic acid	25.6	20.0		ng/L		78	59 - 136	11	30
Perfluoroundecanoic acid	25.6	20.8		ng/L		81	60 - 141	0	30
Perfluorododecanoic acid	25.6	21.5		ng/L		84	59 - 143	8	30
6:2 Fluorotelomer sulfonic acid	24.3	22.6		ng/L		93	28 - 173	3	30
8:2 Fluorotelomer sulfonic acid	24.5	20.5		ng/L		84	55 - 138	9	30
Perfluoropentanoic acid	25.6	21.2		ng/L		83	57 - 141	10	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
M2-8:2 FTS	*155*		*33 - 200*
M2-6:2 FTS	*155*		*17 - 200*
13C5 PFHxA	*153*		*24 - 179*
13C4 PFHpA	*145*		*31 - 182*
13C8 PFOA	*142*		*48 - 162*
13C9 PFNA	*141*		*51 - 167*
13C6 PFDA	*145*		*49 - 163*
13C7 PFUnA	*152*		*34 - 174*
13C2-PFDoDA	*142*		*17 - 176*
13C2 PFTeDA	*135*		*10 - 179*
13C3 PFBS	*148*		*16 - 200*
13C3 PFHxS	*152*		*28 - 188*
13C8 PFOS	*149*		*51 - 159*
d3-NMeFOSAA	*141*		*31 - 174*
d5-NEtFOSAA	*153*		*29 - 195*
13C8 FOSA	*125*		*10 - 168*
13C4 PFBA	*144*		*42 - 165*
13C5 PFPeA	*149*		*38 - 187*

Lab Sample ID: MB 410-228569/1-B
Matrix: Solid
Analysis Batch: 229099

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 228569

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluoroheptanoic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorooctanoic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorononanoic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorodecanoic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorotridecanoic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-228569/1-B
Matrix: Solid
Analysis Batch: 229099

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 228569

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorobutanesulfonic acid	ND		0.20	0.040	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorohexanesulfonic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorooctanesulfonic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
NEtFOSAA	ND		0.20	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
NMeFOSAA	ND		0.20	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluoroheptanesulfonic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorodecanesulfonic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorooctanesulfonamide	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorobutanoic acid	ND		0.20	0.080	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluoroundecanoic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluorododecanoic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1
6:2 Fluorotelomer sulfonic acid	ND		0.20	0.060	ng/g		03/01/22 07:26	03/02/22 10:38	1
8:2 Fluorotelomer sulfonic acid	ND		0.30	0.060	ng/g		03/01/22 07:26	03/02/22 10:38	1
Perfluoropentanoic acid	ND		0.060	0.020	ng/g		03/01/22 07:26	03/02/22 10:38	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*103*		*15 - 200*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
M2-6:2 FTS	*110*		*10 - 200*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C5 PFHxA	*94*		*10 - 174*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C4 PFHpA	*93*		*10 - 178*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C8 PFOA	*96*		*26 - 159*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C9 PFNA	*86*		*26 - 165*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C6 PFDA	*93*		*26 - 161*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C7 PFUnA	*95*		*12 - 173*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C2-PFDoDA	*85*		*11 - 166*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C2 PFTeDA	*80*		*10 - 169*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C3 PFBS	*97*		*27 - 179*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C3 PFHxS	*94*		*24 - 171*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C8 PFOS	*90*		*41 - 154*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
d3-NMeFOSAA	*62*		*10 - 178*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
d5-NEtFOSAA	*72*		*10 - 193*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C8 FOSA	*81*		*14 - 163*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C4 PFBA	*87*		*28 - 153*	*03/01/22 07:26*	*03/02/22 10:38*	*1*
13C5 PFPeA	*88*		*24 - 161*	*03/01/22 07:26*	*03/02/22 10:38*	*1*

Lab Sample ID: LCS 410-228569/2-B
Matrix: Solid
Analysis Batch: 229099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 228569

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	2.50	2.81		ng/g		112	59 - 132
Perfluoroheptanoic acid	2.50	2.94		ng/g		118	59 - 137
Perfluorooctanoic acid	2.50	2.79		ng/g		111	59 - 131
Perfluorononanoic acid	2.50	2.93		ng/g		117	61 - 134
Perfluorodecanoic acid	2.50	2.89		ng/g		116	56 - 133
Perfluorotridecanoic acid	2.50	2.94		ng/g		118	53 - 143
Perfluorotetradecanoic acid	2.50	3.05		ng/g		122	62 - 134
Perfluorobutanesulfonic acid	2.21	2.61		ng/g		118	54 - 130

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-228569/2-B
Matrix: Solid
Analysis Batch: 229099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 228569

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanesulfonic acid	2.28	2.57		ng/g		113	59 - 129
Perfluorooctanesulfonic acid	2.31	2.57		ng/g		111	61 - 126
NEtFOSAA	2.50	2.66		ng/g		107	57 - 127
NMeFOSAA	2.50	2.90		ng/g		116	60 - 134
Perfluoroheptanesulfonic acid	2.38	2.59		ng/g		109	59 - 132
Perfluorodecanesulfonic acid	2.41	2.25		ng/g		93	57 - 132
Perfluorooctanesulfonamide	2.50	2.72		ng/g		109	47 - 149
Perfluorobutanoic acid	2.50	2.79		ng/g		112	60 - 128
Perfluoroundecanoic acid	2.50	3.05		ng/g		122	60 - 134
Perfluorododecanoic acid	2.50	2.95		ng/g		118	60 - 135
6:2 Fluorotelomer sulfonic acid	2.37	2.45		ng/g		103	59 - 135
8:2 Fluorotelomer sulfonic acid	2.40	2.23		ng/g		93	55 - 133
Perfluoropentanoic acid	2.50	2.46		ng/g		98	58 - 134

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-8:2 FTS	*104*		*15 - 200*
M2-6:2 FTS	*106*		*10 - 200*
13C5 PFHxA	*88*		*10 - 174*
13C4 PFHpA	*87*		*10 - 178*
13C8 PFOA	*92*		*26 - 159*
13C9 PFNA	*88*		*26 - 165*
13C6 PFDA	*89*		*26 - 161*
13C7 PFUnA	*89*		*12 - 173*
13C2-PFDoDA	*86*		*11 - 166*
13C2 PFTeDA	*80*		*10 - 169*
13C3 PFBS	*99*		*27 - 179*
13C3 PFHxS	*91*		*24 - 171*
13C8 PFOS	*96*		*41 - 154*
d3-NMeFOSAA	*59*		*10 - 178*
d5-NEtFOSAA	*71*		*10 - 193*
13C8 FOSA	*67*		*14 - 163*
13C4 PFBA	*88*		*28 - 153*
13C5 PFPeA	*92*		*24 - 161*

Lab Sample ID: 410-73309-1 MS
Matrix: Solid
Analysis Batch: 229099

Client Sample ID: Import-1-20220216
Prep Type: Total/NA
Prep Batch: 228569

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	ND		2.58	3.00		ng/g	☼	116	59 - 132
Perfluoroheptanoic acid	ND		2.58	3.04		ng/g	☼	118	59 - 137
Perfluorooctanoic acid	ND		2.58	2.85		ng/g	☼	110	59 - 131
Perfluorononanoic acid	ND		2.58	2.88		ng/g	☼	111	61 - 134
Perfluorodecanoic acid	ND		2.58	2.80		ng/g	☼	109	56 - 133
Perfluorotridecanoic acid	ND		2.58	2.90		ng/g	☼	112	53 - 143
Perfluorotetradecanoic acid	ND		2.58	3.03		ng/g	☼	117	62 - 134
Perfluorobutanesulfonic acid	ND		2.28	2.55		ng/g	☼	112	54 - 130
Perfluorohexanesulfonic acid	ND		2.35	2.75		ng/g	☼	117	59 - 129
Perfluorooctanesulfonic acid	ND		2.39	2.64		ng/g	☼	110	61 - 126

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 410-73309-1 MS
Matrix: Solid
Analysis Batch: 229099

Client Sample ID: Import-1-20220216
Prep Type: Total/NA
Prep Batch: 228569

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
NEtFOSAA	ND		2.58	2.65		ng/g	☼	103	57 - 127
NMeFOSAA	ND		2.58	2.75		ng/g	☼	107	60 - 134
Perfluoroheptanesulfonic acid	ND		2.46	2.61		ng/g	☼	106	59 - 132
Perfluorodecanesulfonic acid	ND		2.49	2.42		ng/g	☼	97	57 - 132
Perfluorooctanesulfonamide	ND		2.58	2.71		ng/g	☼	105	47 - 149
Perfluorobutanoic acid	ND		2.58	2.87		ng/g	☼	111	60 - 128
Perfluoroundecanoic acid	ND		2.58	3.19		ng/g	☼	124	60 - 134
Perfluorododecanoic acid	ND		2.58	3.02		ng/g	☼	117	60 - 135
6:2 Fluorotelomer sulfonic acid	ND		2.45	2.47		ng/g	☼	101	59 - 135
8:2 Fluorotelomer sulfonic acid	ND		2.47	2.54		ng/g	☼	103	55 - 133
Perfluoropentanoic acid	ND		2.58	2.70		ng/g	☼	105	58 - 134

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
M2-8:2 FTS	*94*		*15 - 200*
M2-6:2 FTS	*97*		*10 - 200*
13C5 PFHxA	*83*		*10 - 174*
13C4 PFHpA	*83*		*10 - 178*
13C8 PFOA	*85*		*26 - 159*
13C9 PFNA	*77*		*26 - 165*
13C6 PFDA	*90*		*26 - 161*
13C7 PFUnA	*87*		*12 - 173*
13C2-PFDoDA	*85*		*11 - 166*
13C2 PFTeDA	*82*		*10 - 169*
13C3 PFBS	*89*		*27 - 179*
13C3 PFHxS	*83*		*24 - 171*
13C8 PFOS	*83*		*41 - 154*
d3-NMeFOSAA	*76*		*10 - 178*
d5-NEtFOSAA	*86*		*10 - 193*
13C8 FOSA	*82*		*14 - 163*
13C4 PFBA	*82*		*28 - 153*
13C5 PFPeA	*79*		*24 - 161*

Lab Sample ID: 410-73309-1 MSD
Matrix: Solid
Analysis Batch: 229099

Client Sample ID: Import-1-20220216
Prep Type: Total/NA
Prep Batch: 228569

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid	ND		2.58	3.02		ng/g	☼	117	59 - 132	1	30
Perfluoroheptanoic acid	ND		2.58	2.97		ng/g	☼	115	59 - 137	2	30
Perfluorooctanoic acid	ND		2.58	3.08		ng/g	☼	119	59 - 131	8	30
Perfluorononanoic acid	ND		2.58	3.16		ng/g	☼	123	61 - 134	9	30
Perfluorodecanoic acid	ND		2.58	2.92		ng/g	☼	113	56 - 133	4	30
Perfluorotridecanoic acid	ND		2.58	3.02		ng/g	☼	117	53 - 143	4	30
Perfluorotetradecanoic acid	ND		2.58	2.93		ng/g	☼	114	62 - 134	3	30
Perfluorobutanesulfonic acid	ND		2.28	2.68		ng/g	☼	118	54 - 130	5	30
Perfluorohexanesulfonic acid	ND		2.35	2.63		ng/g	☼	112	59 - 129	5	30
Perfluorooctanesulfonic acid	ND		2.39	2.74		ng/g	☼	115	61 - 126	4	30
NEtFOSAA	ND		2.58	2.49		ng/g	☼	97	57 - 127	6	30
NMeFOSAA	ND		2.58	2.67		ng/g	☼	104	60 - 134	3	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: 410-73309-1 MSD
Matrix: Solid
Analysis Batch: 229099

Client Sample ID: Import-1-20220216
Prep Type: Total/NA
Prep Batch: 228569

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroheptanesulfonic acid	ND		2.46	2.60		ng/g	☼	106	59 - 132	0	30
Perfluorodecanesulfonic acid	ND		2.49	2.56		ng/g	☼	103	57 - 132	5	30
Perfluorooctanesulfonamide	ND		2.58	2.83		ng/g	☼	110	47 - 149	4	30
Perfluorobutanoic acid	ND		2.58	2.92		ng/g	☼	113	60 - 128	2	30
Perfluoroundecanoic acid	ND		2.58	3.10		ng/g	☼	120	60 - 134	3	30
Perfluorododecanoic acid	ND		2.58	3.01		ng/g	☼	117	60 - 135	0	30
6:2 Fluorotelomer sulfonic acid	ND		2.45	2.59		ng/g	☼	106	59 - 135	5	30
8:2 Fluorotelomer sulfonic acid	ND		2.47	2.56		ng/g	☼	104	55 - 133	1	30
Perfluoropentanoic acid	ND		2.58	2.53		ng/g	☼	98	58 - 134	7	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
M2-8:2 FTS	*114*		*15 - 200*
M2-6:2 FTS	*117*		*10 - 200*
13C5 PFHxA	*100*		*10 - 174*
13C4 PFHpA	*107*		*10 - 178*
13C8 PFOA	*103*		*26 - 159*
13C9 PFNA	*98*		*26 - 165*
13C6 PFDA	*106*		*26 - 161*
13C7 PFUnA	*107*		*12 - 173*
13C2-PFDoDA	*100*		*11 - 166*
13C2 PFTeDA	*99*		*10 - 169*
13C3 PFBS	*111*		*27 - 179*
13C3 PFHxS	*110*		*24 - 171*
13C8 PFOS	*102*		*41 - 154*
d3-NMeFOSAA	*89*		*10 - 178*
d5-NEtFOSAA	*105*		*10 - 193*
13C8 FOSA	*90*		*14 - 163*
13C4 PFBA	*102*		*28 - 153*
13C5 PFPeA	*105*		*24 - 161*

Qualifiers

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
cn	Refer to Case Narrative for further detail

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

LCMS

Prep Batch: 226178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73309-4	FB-20220216	Total/NA	Water	537 IDA	
MB 410-226178/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-226178/2-A	Lab Control Sample	Total/NA	Water	537 IDA	
LCSD 410-226178/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	

Analysis Batch: 226634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73309-4	FB-20220216	Total/NA	Water	537 IDA	226178
MB 410-226178/1-A	Method Blank	Total/NA	Water	537 IDA	226178
LCS 410-226178/2-A	Lab Control Sample	Total/NA	Water	537 IDA	226178
LCSD 410-226178/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	226178

Prep Batch: 228569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73309-1	Import-1-20220216	Total/NA	Solid	SHAKE	
410-73309-2	Import-2-20220216	Total/NA	Solid	SHAKE	
410-73309-3	DUP-20220216	Total/NA	Solid	SHAKE	
MB 410-228569/1-B	Method Blank	Total/NA	Solid	SHAKE	
LCS 410-228569/2-B	Lab Control Sample	Total/NA	Solid	SHAKE	
410-73309-1 MS	Import-1-20220216	Total/NA	Solid	SHAKE	
410-73309-1 MSD	Import-1-20220216	Total/NA	Solid	SHAKE	

Cleanup Batch: 228574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73309-1	Import-1-20220216	Total/NA	Solid	Extract Aliquot	228569
410-73309-2	Import-2-20220216	Total/NA	Solid	Extract Aliquot	228569
410-73309-3	DUP-20220216	Total/NA	Solid	Extract Aliquot	228569
MB 410-228569/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	228569
LCS 410-228569/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	228569
410-73309-1 MS	Import-1-20220216	Total/NA	Solid	Extract Aliquot	228569
410-73309-1 MSD	Import-1-20220216	Total/NA	Solid	Extract Aliquot	228569

Analysis Batch: 229099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73309-1	Import-1-20220216	Total/NA	Solid	537 IDA	228574
410-73309-2	Import-2-20220216	Total/NA	Solid	537 IDA	228574
410-73309-3	DUP-20220216	Total/NA	Solid	537 IDA	228574
MB 410-228569/1-B	Method Blank	Total/NA	Solid	537 IDA	228574
LCS 410-228569/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	228574
410-73309-1 MS	Import-1-20220216	Total/NA	Solid	537 IDA	228574
410-73309-1 MSD	Import-1-20220216	Total/NA	Solid	537 IDA	228574

General Chemistry

Analysis Batch: 225441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73309-1	Import-1-20220216	Total/NA	Solid	Moisture	
410-73309-2	Import-2-20220216	Total/NA	Solid	Moisture	
410-73309-3	DUP-20220216	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Client Sample ID: Import-1-20220216
Lab Sample ID: 410-73309-1
Date Collected: 02/16/22 12:20
Matrix: Solid
Date Received: 02/17/22 11:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225441	02/18/22 12:50	UGCW	ELLE

Client Sample ID: Import-1-20220216
Lab Sample ID: 410-73309-1
Date Collected: 02/16/22 12:20
Matrix: Solid
Date Received: 02/17/22 11:39
Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			228569	03/01/22 07:26	Q5YX	ELLE
Total/NA	Cleanup	Extract Aliquot			228574	03/01/22 07:39	Q5YX	ELLE
Total/NA	Analysis	537 IDA		1	229099	03/02/22 11:00	I5JH	ELLE

Client Sample ID: Import-2-20220216
Lab Sample ID: 410-73309-2
Date Collected: 02/16/22 12:30
Matrix: Solid
Date Received: 02/17/22 11:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225441	02/18/22 12:50	UGCW	ELLE

Client Sample ID: Import-2-20220216
Lab Sample ID: 410-73309-2
Date Collected: 02/16/22 12:30
Matrix: Solid
Date Received: 02/17/22 11:39
Percent Solids: 96.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			228569	03/01/22 07:26	Q5YX	ELLE
Total/NA	Cleanup	Extract Aliquot			228574	03/01/22 07:39	Q5YX	ELLE
Total/NA	Analysis	537 IDA		1	229099	03/02/22 11:33	I5JH	ELLE

Client Sample ID: DUP-20220216
Lab Sample ID: 410-73309-3
Date Collected: 02/16/22 00:00
Matrix: Solid
Date Received: 02/17/22 11:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225441	02/18/22 12:50	UGCW	ELLE

Client Sample ID: DUP-20220216
Lab Sample ID: 410-73309-3
Date Collected: 02/16/22 00:00
Matrix: Solid
Date Received: 02/17/22 11:39
Percent Solids: 96.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			228569	03/01/22 07:26	Q5YX	ELLE
Total/NA	Cleanup	Extract Aliquot			228574	03/01/22 07:39	Q5YX	ELLE
Total/NA	Analysis	537 IDA		1	229099	03/02/22 11:44	I5JH	ELLE

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Client Sample ID: FB-20220216

Date Collected: 02/16/22 12:35
Date Received: 02/17/22 11:39

Lab Sample ID: 410-73309-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			226178	02/22/22 07:11	RC3V	ELLE
Total/NA	Analysis	537 IDA		1	226634	02/23/22 09:35	UCD3	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73309-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10670	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	537 IDA	Water	6:2 Fluorotelomer sulfonic acid
537 IDA	537 IDA	Water	8:2 Fluorotelomer sulfonic acid
537 IDA	537 IDA	Water	NEtFOSAA
537 IDA	537 IDA	Water	NMeFOSAA
537 IDA	537 IDA	Water	Perfluorobutanesulfonic acid
537 IDA	537 IDA	Water	Perfluorobutanoic acid
537 IDA	537 IDA	Water	Perfluorodecanesulfonic acid
537 IDA	537 IDA	Water	Perfluorodecanoic acid
537 IDA	537 IDA	Water	Perfluorododecanoic acid
537 IDA	537 IDA	Water	Perfluoroheptanesulfonic acid
537 IDA	537 IDA	Water	Perfluoroheptanoic acid
537 IDA	537 IDA	Water	Perfluorohexanesulfonic acid
537 IDA	537 IDA	Water	Perfluorohexanoic acid
537 IDA	537 IDA	Water	Perfluorononanoic acid
537 IDA	537 IDA	Water	Perfluorooctanesulfonamide
537 IDA	537 IDA	Water	Perfluorooctanesulfonic acid
537 IDA	537 IDA	Water	Perfluorooctanoic acid
537 IDA	537 IDA	Water	Perfluoropentanoic acid
537 IDA	537 IDA	Water	Perfluorotetradecanoic acid
537 IDA	537 IDA	Water	Perfluorotridecanoic acid
537 IDA	537 IDA	Water	Perfluoroundecanoic acid
537 IDA	SHAKE	Solid	6:2 Fluorotelomer sulfonic acid
537 IDA	SHAKE	Solid	8:2 Fluorotelomer sulfonic acid
537 IDA	SHAKE	Solid	NEtFOSAA
537 IDA	SHAKE	Solid	NMeFOSAA
537 IDA	SHAKE	Solid	Perfluorobutanesulfonic acid
537 IDA	SHAKE	Solid	Perfluorobutanoic acid
537 IDA	SHAKE	Solid	Perfluorodecanesulfonic acid
537 IDA	SHAKE	Solid	Perfluorodecanoic acid
537 IDA	SHAKE	Solid	Perfluorododecanoic acid
537 IDA	SHAKE	Solid	Perfluoroheptanesulfonic acid
537 IDA	SHAKE	Solid	Perfluoroheptanoic acid
537 IDA	SHAKE	Solid	Perfluorohexanesulfonic acid
537 IDA	SHAKE	Solid	Perfluorohexanoic acid
537 IDA	SHAKE	Solid	Perfluorononanoic acid
537 IDA	SHAKE	Solid	Perfluorooctanesulfonamide
537 IDA	SHAKE	Solid	Perfluorooctanesulfonic acid
537 IDA	SHAKE	Solid	Perfluorooctanoic acid
537 IDA	SHAKE	Solid	Perfluoropentanoic acid
537 IDA	SHAKE	Solid	Perfluorotetradecanoic acid
537 IDA	SHAKE	Solid	Perfluorotridecanoic acid
537 IDA	SHAKE	Solid	Perfluoroundecanoic acid
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method PFC IDA

Fluorinated Hydrocarbons by Method PFAS IDA

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73309-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFBA #	PFPeA #	C3PFBS #	13C5PHA #	C3PFHS #	C4PFHA #	M262FTS #	C8PFOA #
Import-1-20220216	410-73309-1	65	66	71	67	69	68	83	69
Import-2-20220216	410-73309-2	88	89	91	90	95	95	109	98
DUP-20220216	410-73309-3	91	92	97	97	100	101	110	101
	MB 410-228569/1-B	87	88	97	94	94	93	110	96
	LCS 410-228569/2-B	88	92	99	88	91	87	106	92
Import-1-20220216 MS	410-73309-1 MS	82	79	89	83	83	83	97	85
Import-1-20220216 MSD	410-73309-1 MSD	102	105	111	100	110	107	117	103

	QC LIMITS
PFBA = 13C4 PFBA	28-153
PFPeA = 13C5 PFPeA	24-161
C3PFBS = 13C3 PFBS	27-179
13C5PHA = 13C5 PFHxA	10-174
C3PFHS = 13C3 PFHxS	24-171
C4PFHA = 13C4 PFHpA	10-178
M262FTS = M2-6:2 FTS	10-200
C8PFOA = 13C8 PFOA	26-159

Column to be used to flag recovery values

FORM II 537 IDA

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73309-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	C8PFOS #	C9PFNA #	C6PFDA #	M282FTS #	PFOSA #	d3NMFOS #	13C7PUA #	d5NEFOS #
Import-1-20220216	410-73309-1	67	65	65	70	60	53	67	64
Import-2-20220216	410-73309-2	91	88	93	97	78	74	92	88
DUP-20220216	410-73309-3	93	91	93	97	82	72	90	82
	MB 410-228569/1-B	90	86	93	103	81	62	95	72
	LCS 410-228569/2-B	96	88	89	104	67	59	89	71
Import-1-20220216 MS	410-73309-1 MS	83	77	90	94	82	76	87	86
Import-1-20220216 MSD	410-73309-1 MSD	102	98	106	114	90	89	107	105

	QC LIMITS
C8PFOS = 13C8 PFOS	41-154
C9PFNA = 13C9 PFNA	26-165
C6PFDA = 13C6 PFDA	26-161
M282FTS = M2-8:2 FTS	15-200
PFOSA = 13C8 FOSA	14-163
d3NMFOS = d3-NMeFOSAA	10-178
13C7PUA = 13C7 PFUnA	12-173
d5NEFOS = d5-NEtFOSAA	10-193

Column to be used to flag recovery values

FORM II 537 IDA

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73309-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFDoDA #	PFTDA #
Import-1-20220216	410-73309-1	62	62
Import-2-20220216	410-73309-2	83	85
DUP-20220216	410-73309-3	93	88
	MB 410-228569/1-B	85	80
	LCS 410-228569/2-B	86	80
Import-1-20220216 MS	410-73309-1 MS	85	82
Import-1-20220216 MSD	410-73309-1 MSD	100	99

	QC LIMITS
PFDoDA = 13C2-PFDoDA	11-166
PFTDA = 13C2 PFTeDA	10-169

Column to be used to flag recovery values

FORM II 537 IDA

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73309-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFBA #	PFPeA #	C3PFBS #	13C5PHA #	C3PFHS #	C4PFHA #	M262FTS #	C8PFOA #
FB-20220216	410-73309-4	146 cn	151 cn	147 cn	160 cn	161 cn	165 cn	150 cn	153 cn
	MB 410-226178/1-A	152	146	154	146	146	144	142	143
	LCS 410-226178/2-A	162	160	156	161	175	173	148	159
	LCSD 410-226178/3-A	144	149	148	153	152	145	155	142

	QC LIMITS
PFBA = 13C4 PFBA	42-165
PFPeA = 13C5 PFPeA	38-187
C3PFBS = 13C3 PFBS	16-200
13C5PHA = 13C5 PFHxA	24-179
C3PFHS = 13C3 PFHxS	28-188
C4PFHA = 13C4 PFHpA	31-182
M262FTS = M2-6:2 FTS	17-200
C8PFOA = 13C8 PFOA	48-162

Column to be used to flag recovery values

FORM II 537 IDA

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73309-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	C8PFOS #	C9PFNA #	C6PFDA #	M282FTS #	PFOSA #	d3NMFOS #	13C7PUA #	d5NEFOS #
FB-20220216	410-73309-4	158 cn	156 cn	156 cn	135 cn	129 cn	150 cn	157 cn	156 cn
	MB 410-226178/1-A	151	153	152	151	127	144	140	148
	LCS 410-226178/2-A	173 *5+	174 *5+	172 *5+	168	148	162	162	176
	LCSD 410-226178/3-A	149	141	145	155	125	141	152	153

	QC LIMITS
C8PFOS = 13C8 PFOS	51-159
C9PFNA = 13C9 PFNA	51-167
C6PFDA = 13C6 PFDA	49-163
M282FTS = M2-8:2 FTS	33-200
PFOSA = 13C8 FOSA	10-168
d3NMFOS = d3-NMeFOSAA	31-174
13C7PUA = 13C7 PFUnA	34-174
d5NEFOS = d5-NEtFOSAA	29-195

Column to be used to flag recovery values

FORM II 537 IDA

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73309-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFDoDA #	PFTDA #
FB-20220216	410-73309-4	146 cn	140 cn
	MB 410-226178/1-A	130	117
	LCS 410-226178/2-A	147	131
	LCSD 410-226178/3-A	142	135

	QC LIMITS
PFDoDA = 13C2-PFDoDA	17-176
PFTDA = 13C2 PFTeDA	10-179

Column to be used to flag recovery values

FORM II 537 IDA

FORM III
PFAS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-73309-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 22FEB22-62.d

Lab ID: LCS 410-226178/2-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorohexanoic acid	25.6	19.2	75	58-139	
Perfluoroheptanoic acid	25.6	19.3	75	59-145	
Perfluorooctanoic acid	25.6	20.6	81	51-145	
Perfluorononanoic acid	25.6	20.4	80	61-139	
Perfluorodecanoic acid	25.6	18.2	71	56-138	
Perfluorotridecanoic acid	25.6	19.9	78	58-146	
Perfluorotetradecanoic acid	25.6	20.5	80	62-139	
Perfluorobutanesulfonic acid	22.7	18.4	81	53-138	
Perfluorohexanesulfonic acid	23.3	17.3	74	58-134	
Perfluorooctanesulfonic acid	23.7	18.3	77	45-150	
NEtFOSAA	25.6	19.8	77	55-134	
NMeFOSAA	25.6	19.8	77	59-140	
M2-8:2 FTS	38.3	64.5	168	33-200	
M2-6:2 FTS	38.0	56.2	148	17-200	
Perfluoroheptanesulfonic acid	24.4	18.6	76	56-140	
Perfluorodecanesulfonic acid	24.7	17.9	72	55-137	
Perfluorooctanesulfonamide	25.6	24.3	95	43-167	
Perfluorobutanoic acid	25.6	18.0	70	59-136	
13C5 PFHxA	40.0	64.4	161	24-179	
13C4 PFHpA	40.0	69.3	173	31-182	
13C8 PFOA	40.0	63.5	159	48-162	
13C9 PFNA	40.0	69.4	174	51-167	*5+
13C6 PFDA	40.0	68.7	172	49-163	*5+
13C7 PFUnA	40.0	64.6	162	34-174	
13C2-PFDoDA	40.0	58.9	147	17-176	
13C2 PFTeDA	40.0	52.5	131	10-179	
13C3 PFBS	37.2	58.1	156	16-200	
13C3 PFHxS	37.8	66.2	175	28-188	
13C8 PFOS	38.2	66.3	173	51-159	*5+
d3-NMeFOSAA	40.0	65.0	162	31-174	
d5-NEtFOSAA	40.0	70.3	176	29-195	
13C8 FOSA	40.0	59.0	148	10-168	
13C4 PFBA	40.0	64.9	162	42-165	
13C5 PFPeA	40.0	63.9	160	38-187	
Perfluoroundecanoic acid	25.6	20.8	81	60-141	
Perfluorododecanoic acid	25.6	19.7	77	59-143	
6:2 Fluorotelomer sulfonic acid	24.3	22.0	90	28-173	
8:2 Fluorotelomer sulfonic acid	24.5	18.8	77	55-138	
Perfluoropentanoic acid	25.6	19.3	75	57-141	

Column to be used to flag recovery and RPD values

FORM III 537 IDA

FORM III
PFAS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-73309-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 22MAR02-14.d

Lab ID: LCS 410-228569/2-B Client ID:

COMPOUND	SPIKE ADDED (ng/g)	LCS CONCENTRATION (ng/g)	LCS % REC	QC LIMITS REC	#
Perfluorohexanoic acid	2.50	2.81	112	59-132	
Perfluoroheptanoic acid	2.50	2.94	118	59-137	
Perfluorooctanoic acid	2.50	2.79	111	59-131	
Perfluorononanoic acid	2.50	2.93	117	61-134	
Perfluorodecanoic acid	2.50	2.89	116	56-133	
Perfluorotridecanoic acid	2.50	2.94	118	53-143	
Perfluorotetradecanoic acid	2.50	3.05	122	62-134	
Perfluorobutanesulfonic acid	2.21	2.61	118	54-130	
Perfluorohexanesulfonic acid	2.28	2.57	113	59-129	
Perfluorooctanesulfonic acid	2.31	2.57	111	61-126	
NEtFOSAA	2.50	2.66	107	57-127	
NMeFOSAA	2.50	2.90	116	60-134	
M2-8:2 FTS	1.92	1.98	104	15-200	
M2-6:2 FTS	1.90	2.01	106	10-200	
Perfluoroheptanesulfonic acid	2.38	2.59	109	59-132	
Perfluorodecanesulfonic acid	2.41	2.25	93	57-132	
Perfluorooctanesulfonamide	2.50	2.72	109	47-149	
Perfluorobutanoic acid	2.50	2.79	112	60-128	
13C5 PFHxA	2.00	1.76	88	10-174	
13C4 PFHpA	2.00	1.73	87	10-178	
13C8 PFOA	2.00	1.84	92	26-159	
13C9 PFNA	2.00	1.77	88	26-165	
13C6 PFDA	2.00	1.77	89	26-161	
13C7 PFUnA	2.00	1.79	89	12-173	
13C2-PFDoDA	2.00	1.71	86	11-166	
13C2 PFTeDA	2.00	1.60	80	10-169	
13C3 PFBS	1.86	1.85	99	27-179	
13C3 PFHxS	1.89	1.73	91	24-171	
13C8 PFOS	1.91	1.83	96	41-154	
d3-NMeFOSAA	2.00	1.17	59	10-178	
d5-NEtFOSAA	2.00	1.41	71	10-193	
13C8 FOSA	2.00	1.35	67	14-163	
13C4 PFBA	2.00	1.75	88	28-153	
13C5 PFPeA	2.00	1.85	92	24-161	
Perfluoroundecanoic acid	2.50	3.05	122	60-134	
Perfluorododecanoic acid	2.50	2.95	118	60-135	
6:2 Fluorotelomer sulfonic acid	2.37	2.45	103	59-135	
8:2 Fluorotelomer sulfonic acid	2.40	2.23	93	55-133	
Perfluoropentanoic acid	2.50	2.46	98	58-134	

Column to be used to flag recovery and RPD values

FORM III 537 IDA

FORM III
PFAS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-73309-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 22FEB22-63.d

Lab ID: LCSD 410-226178/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCSD CONCENTRATION (ng/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perfluorohexanoic acid	25.6	20.9	82	8	30	58-139	
Perfluoroheptanoic acid	25.6	22.3	87	14	30	59-145	
Perfluorooctanoic acid	25.6	24.3	95	16	30	51-145	
Perfluorononanoic acid	25.6	21.9	86	7	30	61-139	
Perfluorodecanoic acid	25.6	21.1	82	14	30	56-138	
Perfluorotridecanoic acid	25.6	21.6	85	8	30	58-146	
Perfluorotetradecanoic acid	25.6	21.5	84	5	30	62-139	
Perfluorobutanesulfonic acid	22.7	19.8	88	7	30	53-138	
Perfluorohexanesulfonic acid	23.3	18.5	79	7	30	58-134	
Perfluorooctanesulfonic acid	23.7	19.2	81	5	30	45-150	
NEtFOSAA	25.6	21.2	83	7	30	55-134	
NMeFOSAA	25.6	22.2	87	12	30	59-140	
M2-8:2 FTS	38.3	59.2	155			33-200	
M2-6:2 FTS	38.0	59.0	155			17-200	
Perfluoroheptanesulfonic acid	24.4	22.2	91	17	30	56-140	
Perfluorodecanesulfonic acid	24.7	18.0	73	1	30	55-137	
Perfluorooctanesulfonamide	25.6	28.4	111	15	30	43-167	
Perfluorobutanoic acid	25.6	20.0	78	11	30	59-136	
13C5 PFHxA	40.0	61.2	153			24-179	
13C4 PFHpA	40.0	58.0	145			31-182	
13C8 PFOA	40.0	56.8	142			48-162	
13C9 PFNA	40.0	56.3	141			51-167	
13C6 PFDA	40.0	58.2	145			49-163	
13C7 PFUnA	40.0	60.9	152			34-174	
13C2-PFDoDA	40.0	56.9	142			17-176	
13C2 PFTeDA	40.0	53.9	135			10-179	
13C3 PFBS	37.2	55.1	148			16-200	
13C3 PFHxS	37.8	57.4	152			28-188	
13C8 PFOS	38.2	57.1	149			51-159	
d3-NMeFOSAA	40.0	56.3	141			31-174	
d5-NEtFOSAA	40.0	61.0	153			29-195	
13C8 FOSA	40.0	50.0	125			10-168	
13C4 PFBA	40.0	57.5	144			42-165	
13C5 PFPeA	40.0	59.5	149			38-187	
Perfluoroundecanoic acid	25.6	20.8	81	0	30	60-141	
Perfluorododecanoic acid	25.6	21.5	84	8	30	59-143	
6:2 Fluorotelomer sulfonic acid	24.3	22.6	93	3	30	28-173	
8:2 Fluorotelomer sulfonic acid	24.5	20.5	84	9	30	55-138	
Perfluoropentanoic acid	25.6	21.2	83	10	30	57-141	

Column to be used to flag recovery and RPD values

FORM III 537 IDA

FORM III
PFAS MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-73309-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 22MAR02-16.d

Lab ID: 410-73309-1 MS Client ID: Import-1-20220216 MS

COMPOUND	SPIKE ADDED (ng/g)	SAMPLE CONCENTRATION (ng/g)	MS CONCENTRATION (ng/g)	MS % REC	QC LIMITS REC	#
Perfluorohexanoic acid	2.58	ND	3.00	116	59-132	
Perfluoroheptanoic acid	2.58	ND	3.04	118	59-137	
Perfluorooctanoic acid	2.58	ND	2.85	110	59-131	
Perfluorononanoic acid	2.58	ND	2.88	111	61-134	
Perfluorodecanoic acid	2.58	ND	2.80	109	56-133	
Perfluorotridecanoic acid	2.58	ND	2.90	112	53-143	
Perfluorotetradecanoic acid	2.58	ND	3.03	117	62-134	
Perfluorobutanesulfonic acid	2.28	ND	2.55	112	54-130	
Perfluorohexanesulfonic acid	2.35	ND	2.75	117	59-129	
Perfluorooctanesulfonic acid	2.39	ND	2.64	110	61-126	
NEtFOSAA	2.58	ND	2.65	103	57-127	
NMeFOSAA	2.58	ND	2.75	107	60-134	
M2-8:2 FTS	1.98	1.4	1.85	94	15-200	
M2-6:2 FTS	1.96	1.6	1.90	97	10-200	
Perfluoroheptanesulfonic acid	2.46	ND	2.61	106	59-132	
Perfluorodecanesulfonic acid	2.49	ND	2.42	97	57-132	
Perfluorooctanesulfonamide	2.58	ND	2.71	105	47-149	
Perfluorobutanoic acid	2.58	ND	2.87	111	60-128	
13C5 PFHxA	2.07	1.4	1.71	83	10-174	
13C4 PFHpA	2.07	1.4	1.72	83	10-178	
13C8 PFOA	2.07	1.4	1.75	85	26-159	
13C9 PFNA	2.07	1.3	1.59	77	26-165	
13C6 PFDA	2.07	1.3	1.86	90	26-161	
13C7 PFUnA	2.07	1.4	1.79	87	12-173	
13C2-PFDoDA	2.07	1.3	1.76	85	11-166	
13C2 PFTeDA	2.07	1.3	1.70	82	10-169	
13C3 PFBS	1.92	1.4	1.71	89	27-179	
13C3 PFHxS	1.95	1.3	1.63	83	24-171	
13C8 PFOS	1.97	1.3	1.64	83	41-154	
d3-NMeFOSAA	2.07	1.1	1.56	76	10-178	
d5-NEtFOSAA	2.07	1.3	1.78	86	10-193	
13C8 FOSA	2.07	1.2	1.70	82	14-163	
13C4 PFBA	2.07	1.3	1.70	82	28-153	
13C5 PFPeA	2.07	1.4	1.64	79	24-161	
Perfluoroundecanoic acid	2.58	ND	3.19	124	60-134	
Perfluorododecanoic acid	2.58	ND	3.02	117	60-135	
6:2 Fluorotelomer sulfonic acid	2.45	ND	2.47	101	59-135	
8:2 Fluorotelomer sulfonic acid	2.47	ND	2.54	103	55-133	
Perfluoropentanoic acid	2.58	ND	2.70	105	58-134	

Column to be used to flag recovery and RPD values

FORM III 537 IDA

FORM III
PFAS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-73309-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 22MAR02-17.d

Lab ID: 410-73309-1 MSD Client ID: Import-1-20220216 MSD

COMPOUND	SPIKE ADDED (ng/g)	MSD CONCENTRATION (ng/g)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perfluorohexanoic acid	2.58	3.02	117	1	30	59-132	
Perfluoroheptanoic acid	2.58	2.97	115	2	30	59-137	
Perfluorooctanoic acid	2.58	3.08	119	8	30	59-131	
Perfluorononanoic acid	2.58	3.16	123	9	30	61-134	
Perfluorodecanoic acid	2.58	2.92	113	4	30	56-133	
Perfluorotridecanoic acid	2.58	3.02	117	4	30	53-143	
Perfluorotetradecanoic acid	2.58	2.93	114	3	30	62-134	
Perfluorobutanesulfonic acid	2.28	2.68	118	5	30	54-130	
Perfluorohexanesulfonic acid	2.35	2.63	112	5	30	59-129	
Perfluorooctanesulfonic acid	2.39	2.74	115	4	30	61-126	
NEtFOSAA	2.58	2.49	97	6	30	57-127	
NMeFOSAA	2.58	2.67	104	3	30	60-134	
M2-8:2 FTS	1.98	2.25	114			15-200	
M2-6:2 FTS	1.96	2.29	117			10-200	
Perfluoroheptanesulfonic acid	2.46	2.60	106	0	30	59-132	
Perfluorodecanesulfonic acid	2.49	2.56	103	5	30	57-132	
Perfluorooctanesulfonamide	2.58	2.83	110	4	30	47-149	
Perfluorobutanoic acid	2.58	2.92	113	2	30	60-128	
13C5 PFHxA	2.06	2.07	100			10-174	
13C4 PFHpA	2.06	2.20	107			10-178	
13C8 PFOA	2.06	2.13	103			26-159	
13C9 PFNA	2.06	2.03	98			26-165	
13C6 PFDA	2.06	2.19	106			26-161	
13C7 PFUnA	2.06	2.21	107			12-173	
13C2-PFDoDA	2.06	2.07	100			11-166	
13C2 PFTeDA	2.06	2.04	99			10-169	
13C3 PFBS	1.92	2.14	111			27-179	
13C3 PFHxS	1.95	2.14	110			24-171	
13C8 PFOS	1.97	2.02	102			41-154	
d3-NMeFOSAA	2.06	1.84	89			10-178	
d5-NEtFOSAA	2.06	2.17	105			10-193	
13C8 FOSA	2.06	1.86	90			14-163	
13C4 PFBA	2.06	2.11	102			28-153	
13C5 PFPeA	2.06	2.16	105			24-161	
Perfluoroundecanoic acid	2.58	3.10	120	3	30	60-134	
Perfluorododecanoic acid	2.58	3.01	117	0	30	60-135	
6:2 Fluorotelomer sulfonic acid	2.45	2.59	106	5	30	59-135	
8:2 Fluorotelomer sulfonic acid	2.47	2.56	104	1	30	55-133	
Perfluoropentanoic acid	2.58	2.53	98	7	30	58-134	

Column to be used to flag recovery and RPD values

FORM III 537 IDA

FORM IV
PFAS METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env, LLC
Job No.: 410-73309-1

SDG No.:

Lab File ID: 22FEB22-61.d
Lab Sample ID: MB 410-226178/1-A

Matrix: Water
Date Extracted: 02/22/2022 07:11

Instrument ID: 30733
Date Analyzed: 02/23/2022 08:51

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-226178/2-A	22FEB22-62.d	02/23/2022 09:02
	LCSD 410-226178/3-A	22FEB22-63.d	02/23/2022 09:13
FB-20220216	410-73309-4	22FEB22-65.d	02/23/2022 09:35

FORM IV
PFAS METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env, LLC
Job No.: 410-73309-1

SDG No.:

Lab File ID: 22MAR02-13.d
Lab Sample ID: MB 410-228569/1-B

Matrix: Solid
Date Extracted: 03/01/2022 07:26

Instrument ID: 30728
Date Analyzed: 03/02/2022 10:38

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-228569/2-B	22MAR02-14.d	03/02/2022 10:49
Import-1-20220216	410-73309-1	22MAR02-15.d	03/02/2022 11:00
Import-1-20220216 MS	410-73309-1 MS	22MAR02-16.d	03/02/2022 11:11
Import-1-20220216 MSD	410-73309-1 MSD	22MAR02-17.d	03/02/2022 11:22
Import-2-20220216	410-73309-2	22MAR02-18.d	03/02/2022 11:33
DUP-20220216	410-73309-3	22MAR02-19.d	03/02/2022 11:44

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Instrument ID: 30728 Calibration Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3(mm) Calibration End Date: 03/01/2022 22:21

Calibration ID: 35852

		13C3PFBA		13PFOA		PFOS	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		3248004	3.82	3178454	5.63	2793467	5.96
UPPER LIMIT		4872006	4.22	4767681	6.03	4190201	6.36
LOWER LIMIT		1624002	3.42	1589227	5.23	1396734	5.56
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 410-228775/8		2799371	3.81	2779526	5.63	2453510	5.95
ICV 410-228775/9		3332939	3.81	3318155	5.63	3041012	5.95
CCV 410-229099/3		2888903	3.82	2832007	5.64	2555936	5.96
MB 410-228569/1-B		2627486	3.82	2597308	5.64	2447997	5.96
LCS 410-228569/2-B		2510994	3.83	2684132	5.64	2334310	5.96
410-73309-1	Import-1-20220216	3604245	3.83	3595931	5.64	3163996	5.97
410-73309-1 MS	Import-1-20220216 MS	2715859	3.82	2754606	5.64	2519935	5.97
410-73309-1 MSD	Import-1-20220216 MSD	2615214	3.83	2671847	5.65	2419641	5.97
410-73309-2	Import-2-20220216	2680379	3.82	2633534	5.64	2399886	5.96
410-73309-3	DUP-20220216	2674130	3.82	2639469	5.64	2385389	5.96
CCV 410-229099/12		2876700	3.82	2858407	5.63	2591625	5.96

13C3PFBA = 13C3-PFBA
13PFOA = 13C2 PFOA
PFOS = 13C4 PFOS

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.4 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 537 IDA

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Instrument ID: 30728 Calibration Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3(mm) Calibration End Date: 03/01/2022 22:21

Calibration ID: 35852

		PFDA					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		3593807	6.28				
UPPER LIMIT		5390711	6.68				
LOWER LIMIT		1796904	5.88				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 410-228775/8		3154913	6.28				
ICV 410-228775/9		3741584	6.28				
CCV 410-229099/3		3489579	6.30				
MB 410-228569/1-B		2847619	6.29				
LCS 410-228569/2-B		2998466	6.29				
410-73309-1	Import-1-20220216	4143787	6.29				
410-73309-1 MS	Import-1-20220216 MS	2917653	6.29				
410-73309-1 MSD	Import-1-20220216 MSD	2997927	6.29				
410-73309-2	Import-2-20220216	3040658	6.29				
410-73309-3	DUP-20220216	3074527	6.29				
CCV 410-229099/12		3347105	6.29				

PFDA = 13C2 PFDA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.4 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 537 IDA

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Instrument ID: 30733 Calibration Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3(mm) Calibration End Date: 02/22/2022 16:18

Calibration ID: 35710

		13C3PFBA		13PFOA		PFOS	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		706420	3.98	758781	5.70	469872	6.02
UPPER LIMIT		1059630	4.38	1138172	6.10	704808	6.42
LOWER LIMIT		353210	3.58	379391	5.30	234936	5.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 410-226473/8		601619	3.97	615101	5.70	428345	6.02
ICV 410-226473/9		690361	3.97	708438	5.70	470650	6.02
CCV 410-226634/56		692615	3.98	780735	5.71	461663	6.03
MB 410-226178/1-A		566795	3.99	646659	5.71	390462	6.03
LCS 410-226178/2-A		555321	3.98	596121	5.71	350634	6.03
LCSD 410-226178/3-A		551860	3.99	605971	5.71	396653	6.03
410-73309-4	FB-20220216	591703	3.99	593980	5.70	360316	6.02
CCV 410-226634/69		718859	3.98	738963	5.71	468463	6.02

13C3PFBA = 13C3-PFBA
13PFOA = 13C2 PFOA
PFOS = 13C4 PFOS

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.4 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 537 IDA

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Instrument ID: 30733 Calibration Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3(mm) Calibration End Date: 02/22/2022 16:18

Calibration ID: 35710

		PFDA					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		927115	6.35				
UPPER LIMIT		1390673	6.75				
LOWER LIMIT		463558	5.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 410-226473/8		839755	6.34				
ICV 410-226473/9		926367	6.34				
CCV 410-226634/56		982647	6.34				
MB 410-226178/1-A		791163	6.36				
LCS 410-226178/2-A		712119	6.36				
LCSD 410-226178/3-A		732298	6.36				
410-73309-4	FB-20220216	763536	6.35				
CCV 410-226634/69		929126	6.35				

PFDA = 13C2 PFDA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.4 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 537 IDA

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID: Import-1-20220216
Lab Sample ID: 410-73309-1
Matrix: Solid
Lab File ID: 22MAR02-15.d
Analysis Method: 537 IDA
Date Collected: 02/16/2022 12:20
Extraction Method: SHAKE
Date Extracted: 03/01/2022 07:26
Sample wt/vol: 10.04(g)
Date Analyzed: 03/02/2022 11:00
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 4(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture: 3.5
GPC Cleanup:(Y/N) N
Analysis Batch No.: 229099
Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	ND		0.062	0.021
375-85-9	Perfluoroheptanoic acid	ND		0.062	0.021
335-67-1	Perfluorooctanoic acid	ND		0.062	0.021
375-95-1	Perfluorononanoic acid	ND		0.062	0.021
335-76-2	Perfluorodecanoic acid	ND		0.062	0.021
72629-94-8	Perfluorotridecanoic acid	ND		0.062	0.021
376-06-7	Perfluorotetradecanoic acid	ND		0.062	0.021
375-73-5	Perfluorobutanesulfonic acid	ND		0.21	0.041
355-46-4	Perfluorohexanesulfonic acid	ND		0.062	0.021
1763-23-1	Perfluorooctanesulfonic acid	ND		0.062	0.021
2991-50-6	NEtFOSAA	ND		0.21	0.021
2355-31-9	NMeFOSAA	ND		0.21	0.021
375-92-8	Perfluoroheptanesulfonic acid	ND		0.062	0.021
335-77-3	Perfluorodecanesulfonic acid	ND		0.062	0.021
754-91-6	Perfluorooctanesulfonamide	ND		0.062	0.021
375-22-4	Perfluorobutanoic acid	ND		0.21	0.083
2058-94-8	Perfluoroundecanoic acid	ND		0.062	0.021
307-55-1	Perfluorododecanoic acid	ND		0.062	0.021
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.21	0.062
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.31	0.062
2706-90-3	Perfluoropentanoic acid	ND		0.062	0.021

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: Import-1-20220216 Lab Sample ID: 410-73309-1

Matrix: Solid Lab File ID: 22MAR02-15.d

Analysis Method: 537 IDA Date Collected: 02/16/2022 12:20

Extraction Method: SHAKE Date Extracted: 03/01/2022 07:26

Sample wt/vol: 10.04(g) Date Analyzed: 03/02/2022 11:00

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 4(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 3.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 229099 Units: ng/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	70		15-200
STL02279	M2-6:2 FTS	83		10-200
STL02577	13C5 PFHxA	67		10-174
STL01892	13C4 PFHpA	68		10-178
STL01052	13C8 PFOA	69		26-159
STL02578	13C9 PFNA	65		26-165
STL02579	13C6 PFDA	65		26-161
STL02580	13C7 PFUnA	67		12-173
STL02703	13C2-PFDoDA	62		11-166
STL02116	13C2 PFTeDA	62		10-169
STL02337	13C3 PFBS	71		27-179
STL02581	13C3 PFHxS	69		24-171
STL01054	13C8 PFOS	67		41-154
STL02118	d3-NMeFOSAA	53		10-178
STL02117	d5-NEtFOSAA	64		10-193
STL01056	13C8 FOSA	60		14-163
STL00992	13C4 PFBA	65		28-153
STL01893	13C5 PFPeA	66		24-161

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-15.d
Lims ID: 410-73309-A-1-J
Client ID: Import-1-20220216
Sample Type: Client
Inject. Date: 02-Mar-2022 11:00:12 ALS Bottle#: 5 Worklist Smp#: 7
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: 410-73309-A-1-J
Misc. Info.: Plate: 1 Rack: 1 410-0051478-007
Operator ID: US19_USR_INS20261 Instrument ID: 30728

Method: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 10:20:58 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617

First Level Reviewer: glicka Date: 02-Mar-2022 12:09:03
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90		1.065				0				
1 MTP										
175.00 > 97.00		1.518				ND				
2 PPF Acid										
163.00 > 119.00		1.874				ND				
3 PFMOAA										
179.00 > 85.00		2.891				ND				
4 R-PSDA										
441.00 > 241.00		3.792				ND				
5 R-EVE										
405.00 > 217.00		3.793				ND				
D 6 13C4 PFBA										
217.00 > 172.00	3.828	3.816	0.012	1.000	5052368	6.49		64.9	99294	
7 Perfluorobutanoic acid										M
213.00 > 169.00	3.828	3.816	0.012	1.000	59632	0.1371			148	M
* 8 13C3-PFBA										
216.00 > 172.00	3.828	3.817	0.011		3604245	5.00			12237	
9 Hydrolyzed PSDA										
439.00 > 343.00		3.817				ND				
10 PMPA										
229.00 > 185.00		3.956				ND				
11 PFPrS										
249.00 > 99.00		4.020				ND				
12 NVHOS										
297.00 > 135.00		4.060				ND				
13 PFECA F										
229.00 > 85.00		4.082				0				

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
14 PFO2HxA										
245.00 > 85.00		4.286				ND				
15 3:3 FTCA										
241.00 > 177.00		4.403				ND				
16 Perfluoropentanoic acid										
263.00 > 219.00		4.404				ND				
D 17 13C5 PFPeA										
268.00 > 223.00	4.416	4.404	0.012	1.154	4189866	6.64		66.4	134419	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00		4.460				0				
299.00 > 99.00		4.460								
D 19 13C3 PFBS										
302.00 > 80.00	4.471	4.462	0.009	1.168	4227919	6.63		71.3	224927	
20 PEPA										
279.00 > 235.00		4.517				ND				
21 PFECA A										
279.00 > 85.00		4.543				ND				
22 PES										
315.00 > 135.00		4.638				ND				
23 PFECA B										
201.00 > 85.00		4.771				ND				
295.00 > 201.00		4.771								
110 FBSA										
299.00 > 78.00		4.792				ND				
24 4:2 FTS										
327.00 > 307.00		4.803				ND				
327.00 > 81.00		4.803								
D 25 M2-4:2 FTS										
329.00 > 81.00	4.816	4.806	0.010	0.854	857886	8.46		90.5	28938	
26 Perfluorohexanoic acid										
313.00 > 269.00		4.843				0				
313.00 > 119.00		4.843								
D 27 13C5 PFHxA										
318.00 > 273.00	4.856	4.846	0.010	0.861	5612075	6.73		67.3	219981	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00		4.863				ND				
349.00 > 99.00		4.863								
29 PFO3OA										
311.00 > 85.00		4.903				ND				
30 HFPO-DA										
329.00 > 285.00		4.978				ND				
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.998	4.983	0.015	0.886	1313420	6.70		67.0	86417	
32 Hydro-EVE Acid										
427.00 > 283.00		5.201				ND				
33 R-PSDCA										
397.00 > 217.00		5.209				ND				

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
108 FBSEE										
386.00 > 166.00		5.220				ND				
386.00 > 80.00		5.220								
34 Hydro-PS Acid										
463.00 > 263.00		5.246				ND				
35 Perfluorohexanesulfonic acid										
399.00 > 80.00		5.254				ND				
399.00 > 99.00		5.254								
36 Perfluoroheptanoic acid										
363.00 > 319.00		5.254				0				
363.00 > 169.00		5.254								
D 37 13C3 PFHxS										
402.00 > 80.00	5.265	5.254	0.011	0.934	3868398	6.52		69.0	239321	
D 38 13C4 PFHpA										
367.00 > 322.00	5.265	5.255	0.010	0.934	6155826	6.85		68.5	142778	
39 DONA										
377.00 > 251.00		5.303				ND				
40 PFECA G										
379.00 > 185.00		5.322				ND				
41 5:3 FTCA										
341.00 > 237.00		5.338				ND				
341.00 > 217.00		5.338								
42 6:2 FTUCA										
357.00 > 293.00		5.359				0				
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.369	5.361	0.008	0.952	2939042	5.99		59.9	75059	
44 6:2 FTCA										
377.00 > 293.00		5.378				ND				
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.386	5.379	0.007	0.955	447971	5.80		58.0	31128	
46 PFO4DA										
377.00 > 85.00		5.435				ND				
47 PS Acid										
443.00 > 147.00		5.479				ND				
48 EVE Acid										
407.00 > 263.00		5.500				ND				
49 PFECHS										
461.00 > 381.00		5.569				ND				
461.00 > 99.00		5.569								
50 6:2 FTS										
427.00 > 407.00		5.613				0				
427.00 > 81.00		5.613								
D 52 M2-6:2 FTS										
429.00 > 81.00	5.630	5.614	0.016	0.998	284481	7.84		82.5	18885	
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00		5.618				ND				
449.00 > 99.00		5.618								

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 Perfluorooctanoic acid										
413.00 > 369.00		5.630				ND				
413.00 > 169.00		5.630								
D 54 13C8 PFOA										
421.00 > 376.00	5.640	5.631	0.009	1.000	6100602	6.93		69.3	244088	
* 55 13C2 PFOA										
415.00 > 370.00	5.640	5.631	0.009		3595931	5.00			182305	
106 FHxSA										
399.00 > 78.00		5.692				ND				
56 TAF										
443.00 > 85.00		5.879				ND				
57 Perfluorooctanesulfonic acid										
499.00 > 80.00		5.954				ND				
499.00 > 99.00		5.954								
* 59 13C4 PFOS										
503.00 > 80.00	5.965	5.955	0.010		3163996	4.78			170169	
D 58 13C8 PFOS										
507.00 > 80.00	5.965	5.955	0.010	1.000	4115416	6.42		67.2	73036	
61 Perfluorononanoic acid										
463.00 > 419.00		5.973				ND				
463.00 > 169.00		5.973								
D 60 13C9 PFNA										
472.00 > 427.00	5.982	5.975	0.007	1.003	4099094	6.53		65.3	287497	
109 HFPO-TrA										
496.00 > 185.00		6.068				ND				
62 7:3 FTCA										
441.00 > 337.00		6.077				ND				
63 8:2 FTUCA										
457.00 > 393.00		6.084				0				
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.093	6.085	0.008	0.969	3127926	6.19		61.9	125733	
65 8:2 FTCA										
477.00 > 393.00		6.099				ND				
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.113	6.102	0.011	0.972	332027	5.84		58.4	22663	
67 9ClFOS										
531.00 > 351.00		6.130				ND				
68 Perfluorononanesulfonic acid										
549.00 > 80.00		6.254				ND				
549.00 > 99.00		6.254								
69 Perfluorodecanoic acid										
513.00 > 469.00		6.279				ND				
513.00 > 169.00		6.279								
D 71 13C6 PFDA										
519.00 > 474.00	6.290	6.282	0.008	1.000	5156320	6.52		65.2	364870	
* 70 13C2 PFDA										
515.00 > 470.00	6.290	6.282	0.008		4143787	5.00			295427	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
72 8:2 FTS										
527.00 > 507.00		6.282				ND				
527.00 > 81.00		6.282								
D 73 M2-8:2 FTS										
529.00 > 81.00	6.298	6.285	0.013	1.001	137757	6.72		70.1	9555	
75 Perfluorooctanesulfonamide										
498.00 > 78.00		6.371				0				
D 74 13C8 FOSA										
506.00 > 78.00	6.374	6.375	-0.001	1.013	6077756	5.95		59.5	292046	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.437	6.428	0.009	1.023	1189465	5.35		53.5	76703	
76 NMeFOSAA										
570.00 > 419.00		6.429				0				
570.00 > 483.00		6.429								
78 Perfluorodecanesulfonic acid										
599.00 > 80.00		6.522				ND				
599.00 > 99.00		6.522								
79 Perfluoroundecanoic acid										
563.00 > 519.00		6.550				ND				
563.00 > 169.00		6.550								
D 80 13C7 PFUnA										
570.00 > 525.00	6.563	6.557	0.006	1.043	5626599	6.72		67.2	343045	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.575	6.569	0.006	1.045	1013127	6.38		63.8	46149	
82 NEtFOSAA										
584.00 > 419.00		6.570				ND				
584.00 > 526.00		6.570								
83 10:2 FTUCA										
557.00 > 493.00		6.654				0				
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.665	6.660	0.005	1.060	2691769	6.05		60.5	127845	
84 11ClFOS										
631.00 > 451.00		6.660				ND				
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.676	6.670	0.006	1.061	220309	5.32		53.2	13704	
86 10:2 FTCA										
577.00 > 493.00		6.670				ND				
88 Perfluorododecanoic acid										
613.00 > 569.00		6.787				ND				
613.00 > 169.00		6.787								
D 89 13C2-PFDoDA										
615.00 > 570.00	6.803	6.796	0.007	1.082	3974927	6.23		62.3	244877	
90 10:2 FTS										
627.00 > 607.00		6.810				ND				
627.00 > 81.00		6.810								
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.814	6.813	0.001	1.083	795035	4.79		47.9	5579	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 N-MeFOSE-M										
616.00 > 59.00		6.820				ND				
94 NMeFOSA										
512.00 > 169.00		6.829				ND				
D 93 d3-NMePFOSA										
515.00 > 169.00	6.834	6.829	0.005	1.087	221996	2.10		21.0	4785	
95 PFDoS										
699.00 > 80.00		6.967				0				
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.971	6.973	-0.002	1.108	903698	4.80		48.0	12417	
97 N-EtFOSE-M										
630.00 > 59.00		6.981				ND				
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.999	6.995	0.004	1.113	235494	2.40		24.0	6875	
100 N-EtFOSA-M										
526.00 > 169.00		6.996				ND				
99 Perfluorotridecanoic acid										
663.00 > 619.00		6.996				ND				
663.00 > 169.00		6.996								
105 HFPOTeA										
661.00 > 185.00		7.058				ND				
661.00 > 119.00		7.058								
101 Perfluorotetradecanoic acid										
713.00 > 669.00		7.181				0				
713.00 > 169.00		7.181								
D 102 13C2 PFTeDA										
715.00 > 670.00	7.188	7.184	0.004	1.143	3170660	6.18		61.8	109098	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.491	7.483	0.008	1.042	16897	0.0915	Target=5.44		691	
813.00 > 169.00	7.491	7.483	0.008	1.042	3034		5.57(2.72-8.16)		209	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.728	7.717	0.011	1.075	13638	0.1028	Target=6.37		754	
913.00 > 169.00	7.722	7.717	0.005	1.074	1959		6.96(3.18-9.55)		186	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

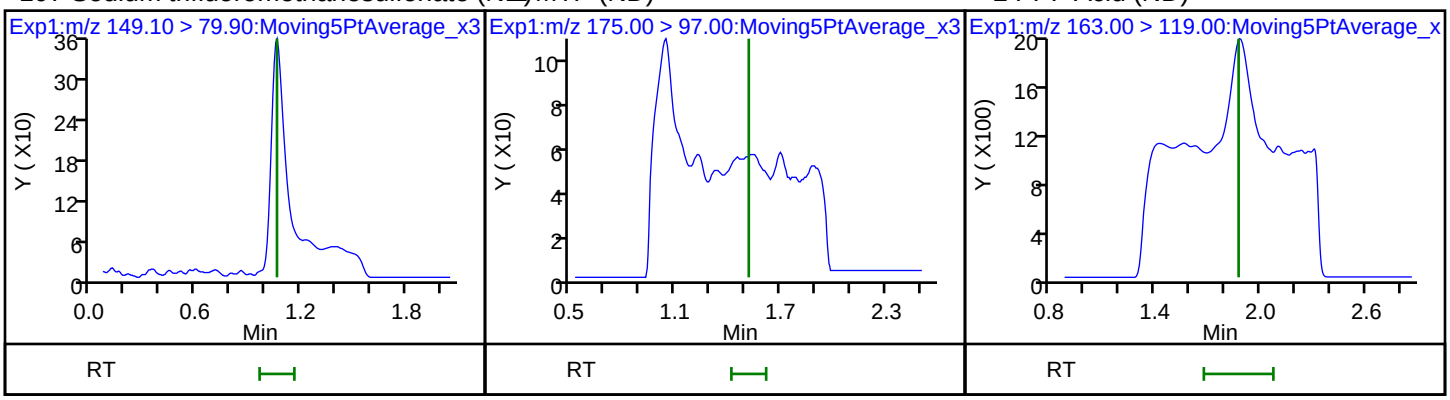
PFC_IS_MOD_00279 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Mar-2022 12:25:18 Chrom Revision: 2.3 16-Feb-2022 17:52:00

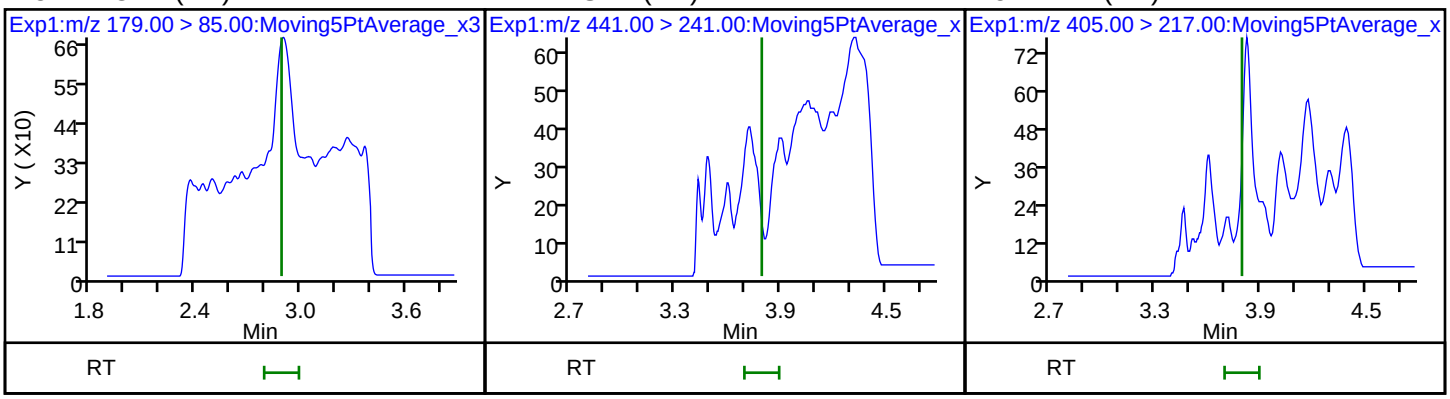
Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-15.d				
Injection Date:	02-Mar-2022 11:00:12	Instrument ID:	30728		
Lims ID:	410-73309-A-1-J	Lab Sample ID:	410-73309-1		
Client ID:	Import-1-20220216				
Operator ID:	US19_USR_INS20261	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		

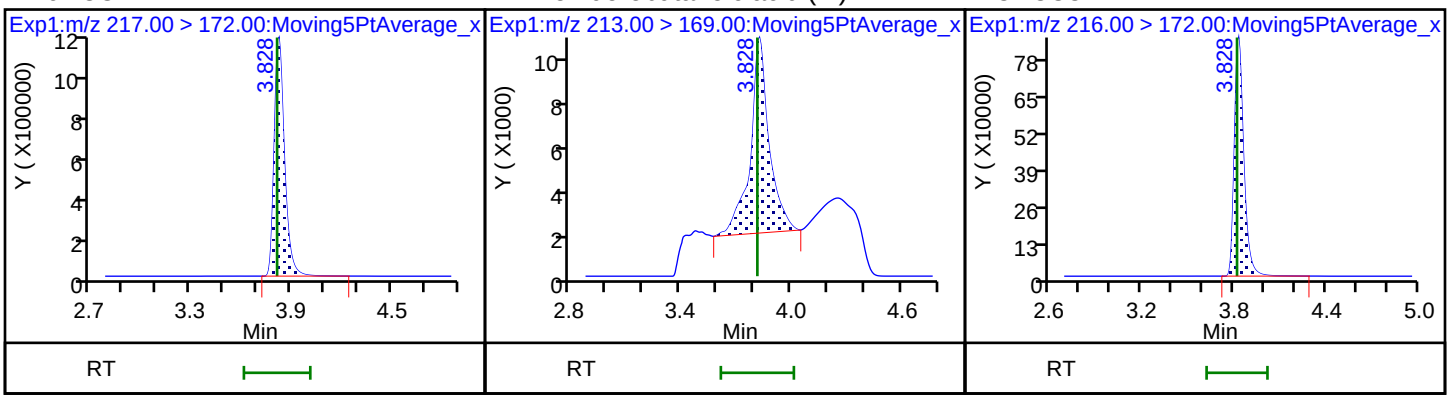
107 Sodium trifluoromethanesulfonate (ND) 1 MTP (ND) 2 PPF Acid (ND)



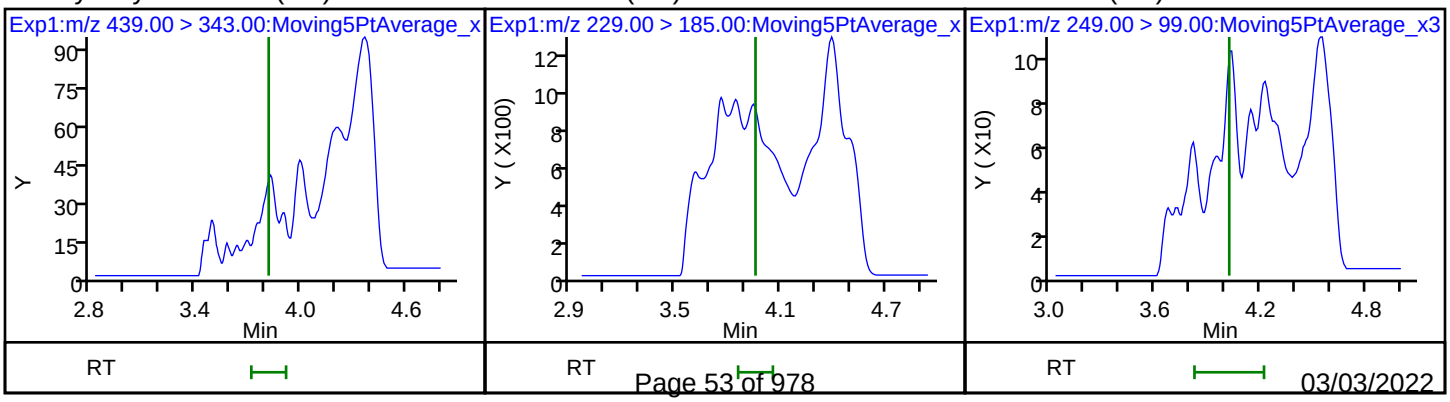
3 PFMOAA (ND) 4 R-PSDA (ND) 5 R-EVE (ND)



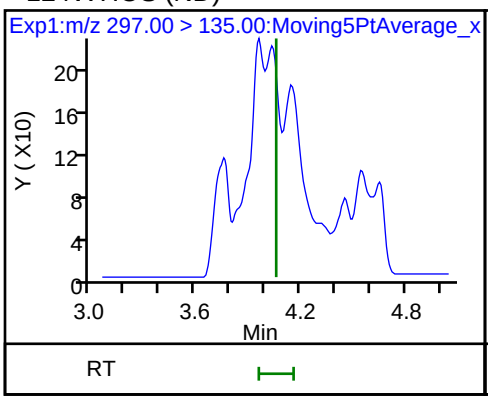
D 6 13C4 PFBA 7 Perfluorobutanoic acid (M) * 8 13C3-PFBA



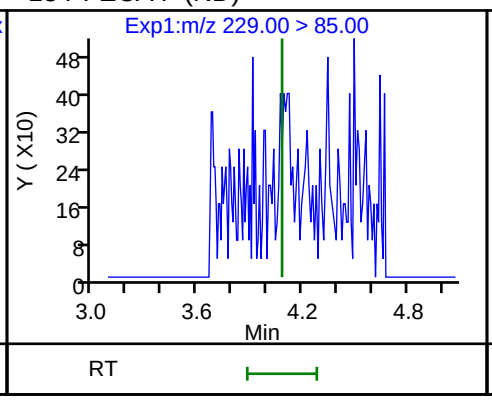
9 Hydrolyzed PSDA (ND) 10 PMPA (ND) 11 PFPrS (ND)



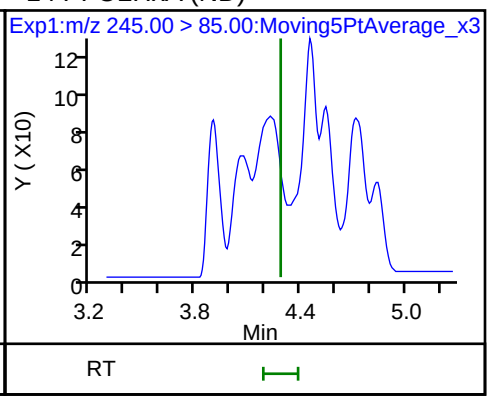
12 NVHOS (ND)



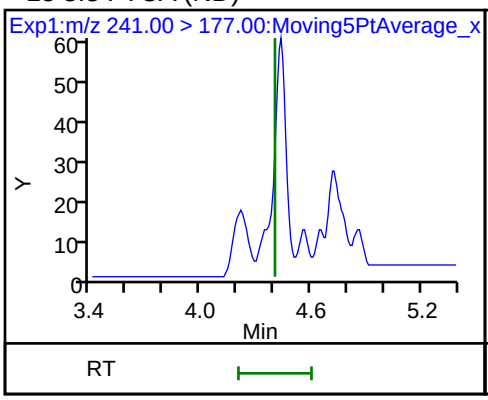
13 PFECA F (ND)



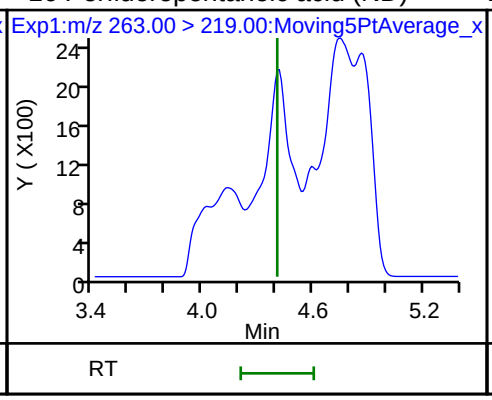
14 PFO2HxA (ND)



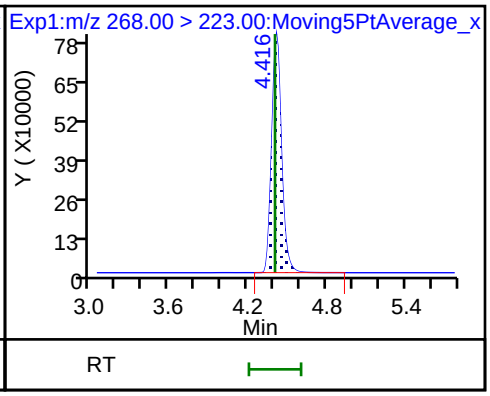
15 3:3 FTCA (ND)



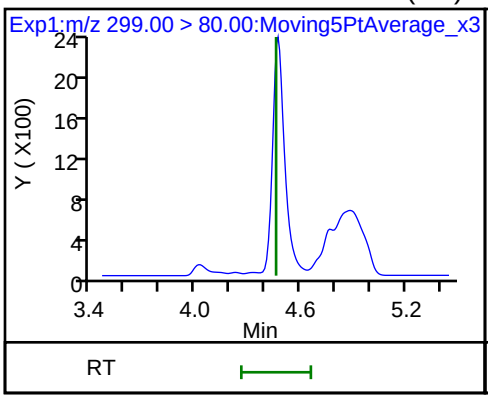
16 Perfluoropentanoic acid (ND)



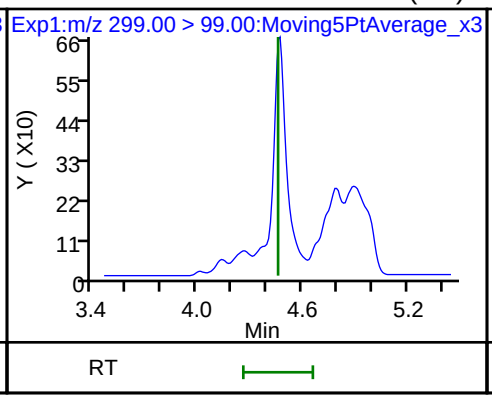
D 17 13C5 PFPeA



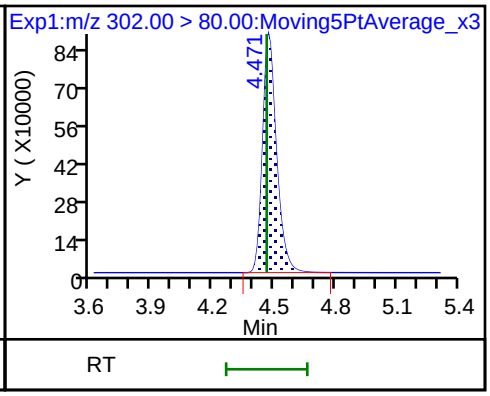
18 Perfluorobutanesulfonic acid (ND)



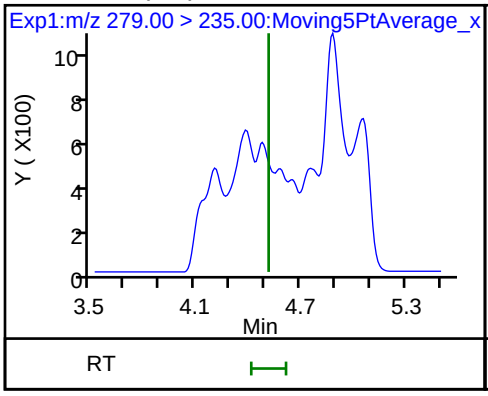
18 Perfluorobutanesulfonic acid (ND)



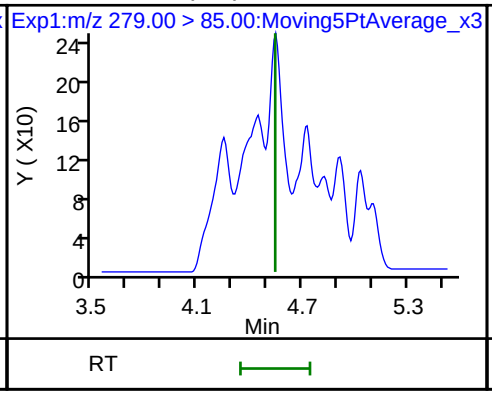
D 19 13C3 PFBS



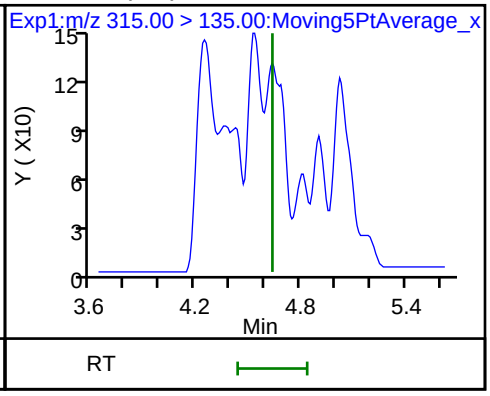
20 PEPA (ND)



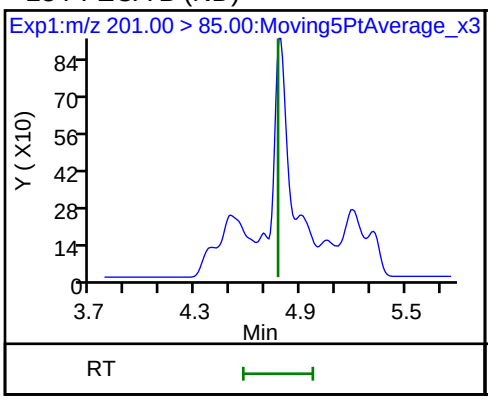
21 PFECA A (ND)



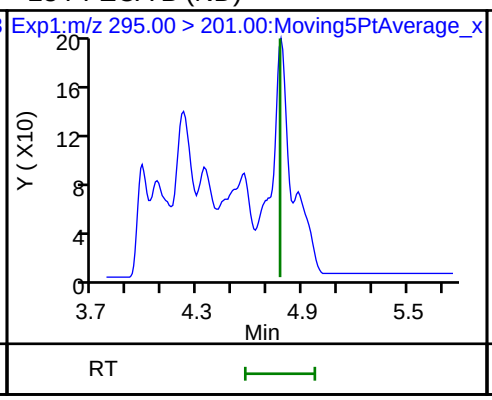
22 PES (ND)



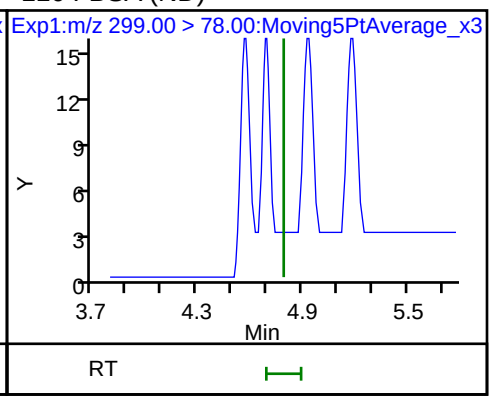
23 PFECA B (ND)



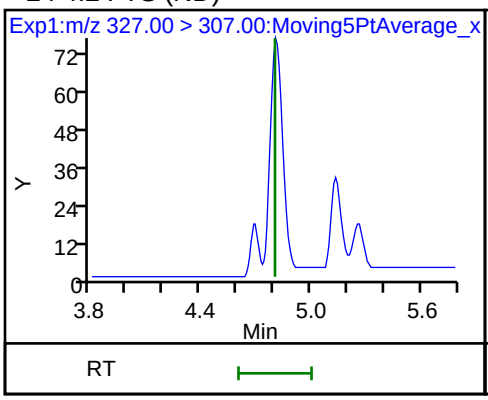
23 PFECA B (ND)



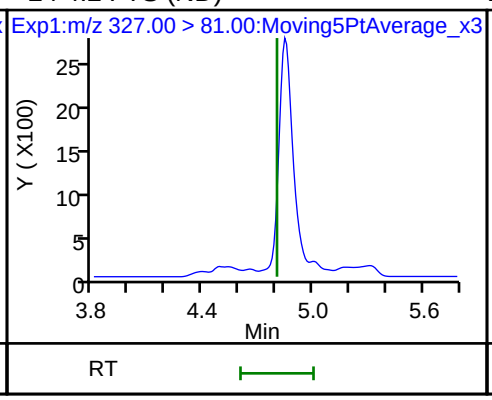
110 FBSA (ND)



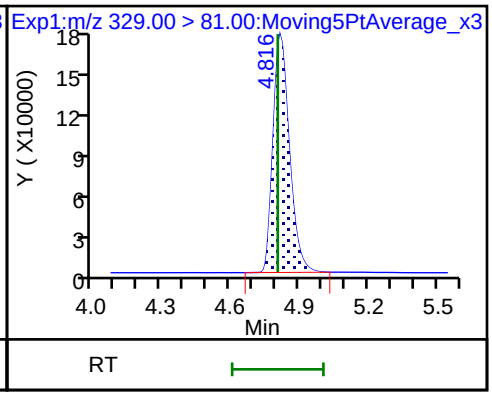
24 4:2 FTS (ND)



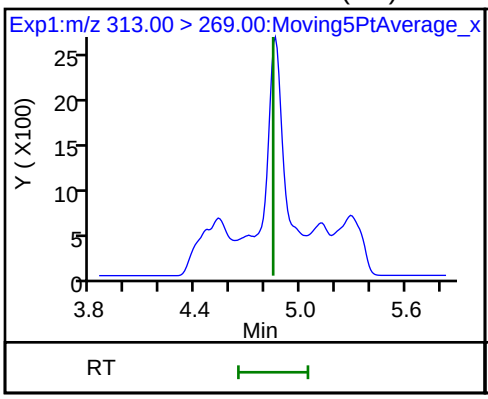
24 4:2 FTS (ND)



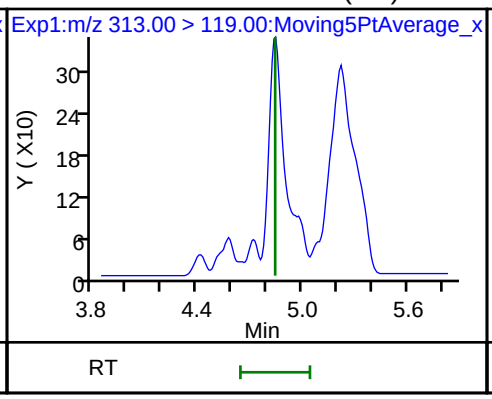
D 25 M2-4:2 FTS



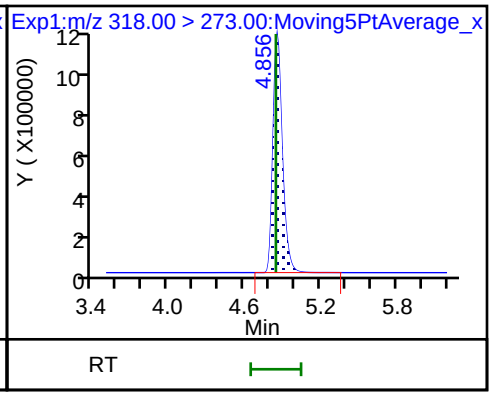
26 Perfluorohexanoic acid (ND)



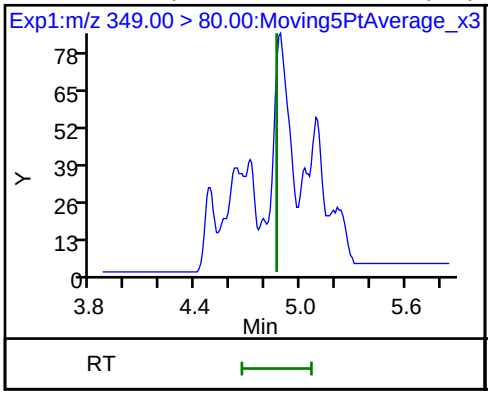
26 Perfluorohexanoic acid (ND)



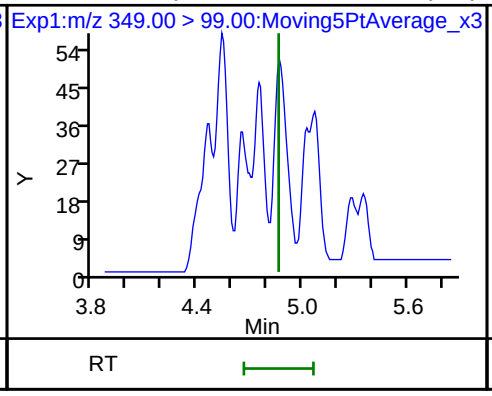
D 27 13C5 PFHxA



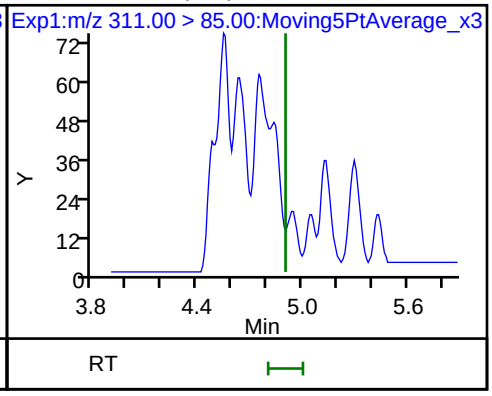
28 Perfluoropentanesulfonic acid (ND)



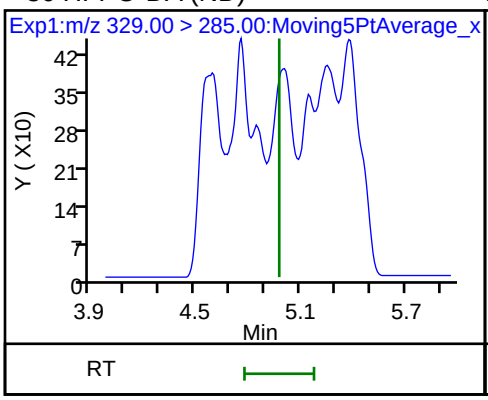
28 Perfluoropentanesulfonic acid (ND)



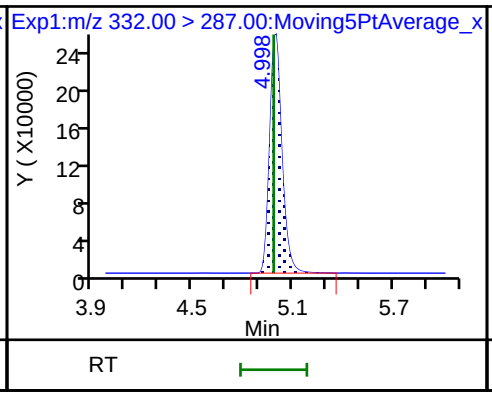
29 PFO3OA (ND)



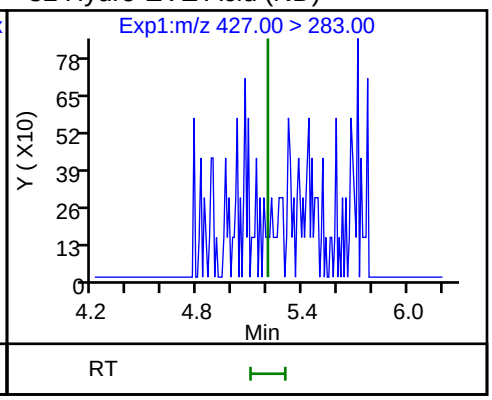
30 HFPO-DA (ND)



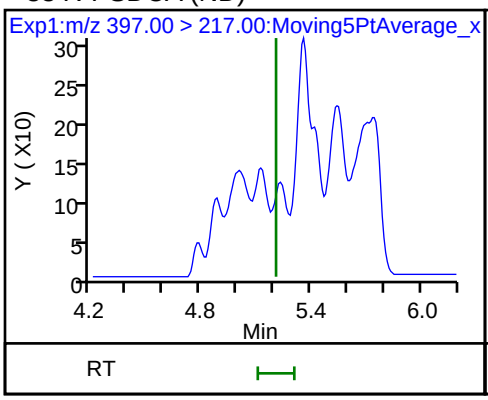
D 31 13C3 HFPO-DA



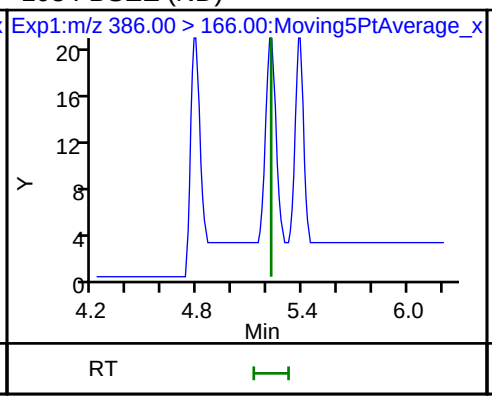
32 Hydro-EVE Acid (ND)



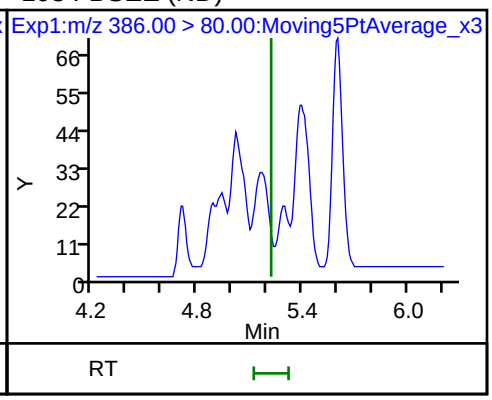
33 R-PSDCA (ND)



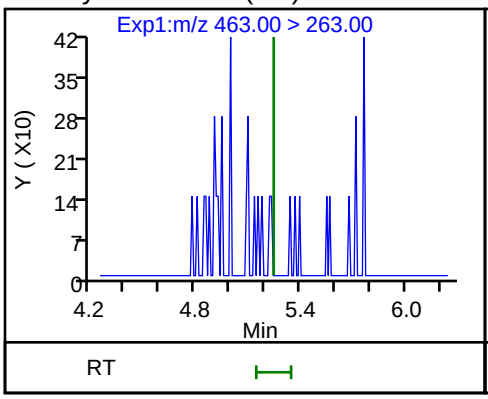
108 FBSEE (ND)



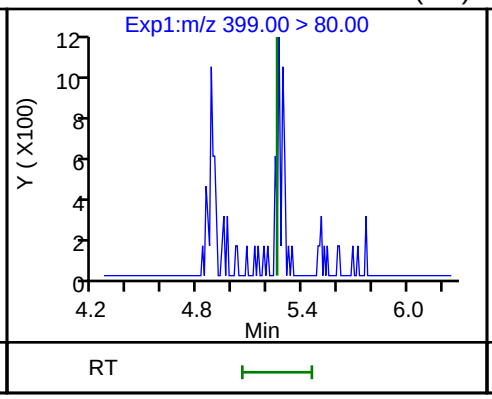
108 FBSEE (ND)



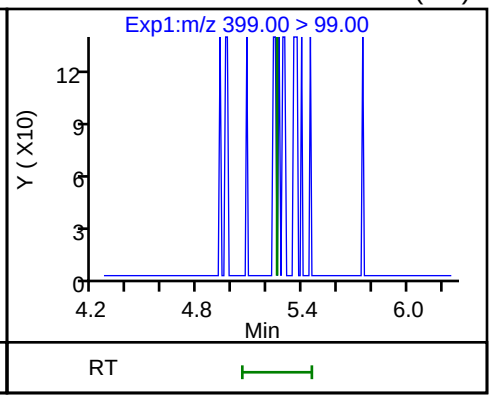
34 Hydro-PS Acid (ND)



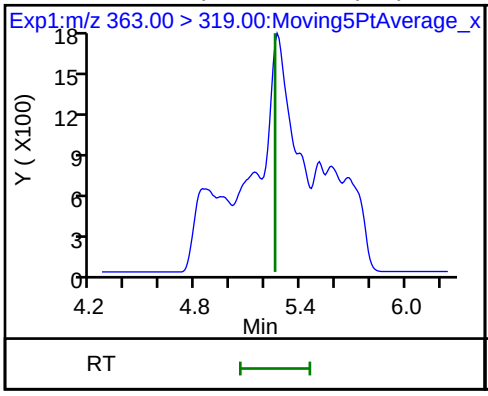
35 Perfluorohexanesulfonic acid (ND)



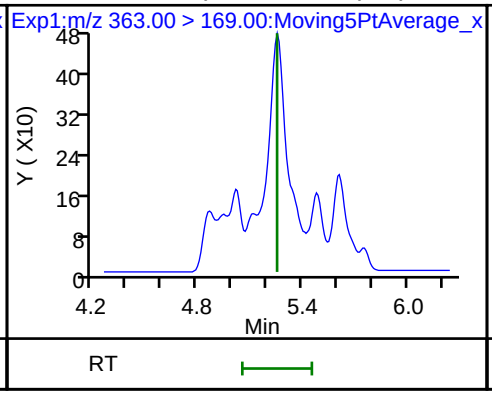
35 Perfluorohexanesulfonic acid (ND)



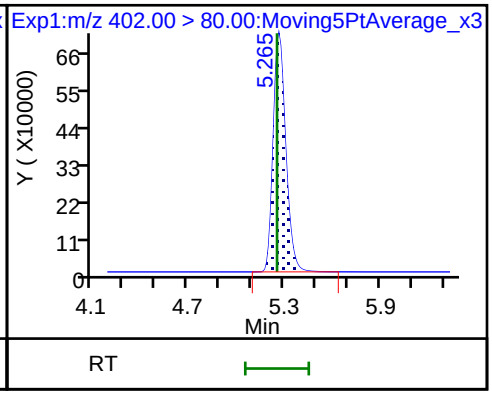
36 Perfluoroheptanoic acid (ND)



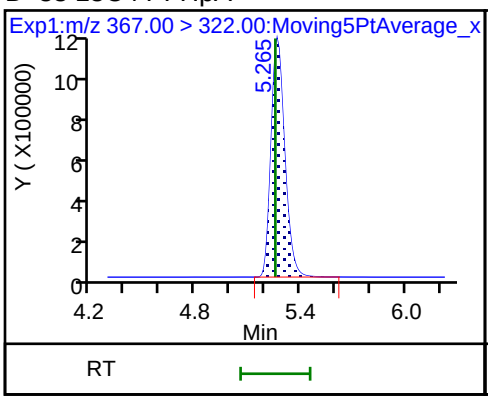
36 Perfluoroheptanoic acid (ND)



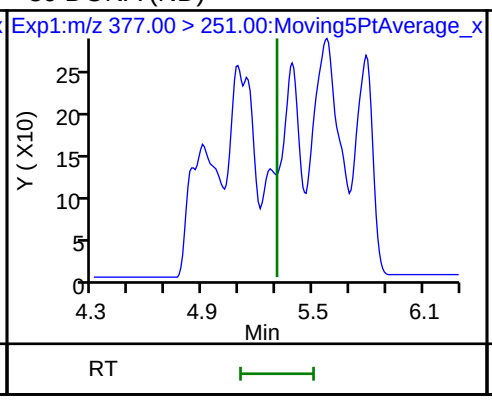
D 37 13C3 PFHxS



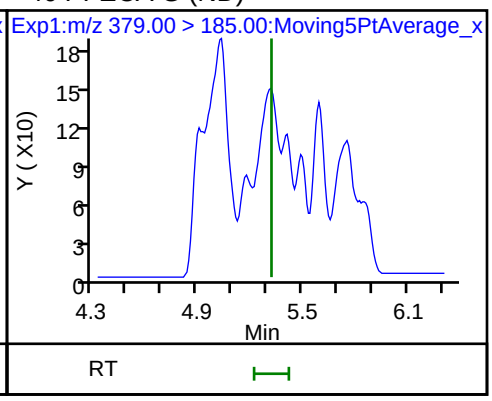
D 38 13C4 PFHpA



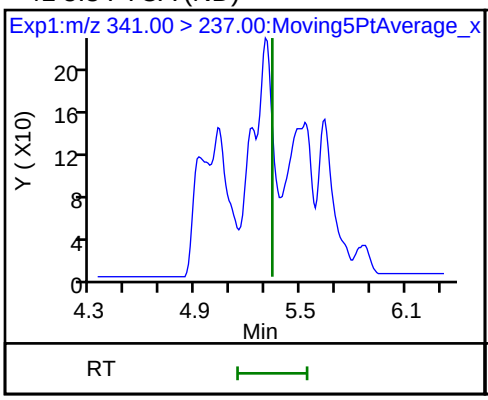
39 DONA (ND)



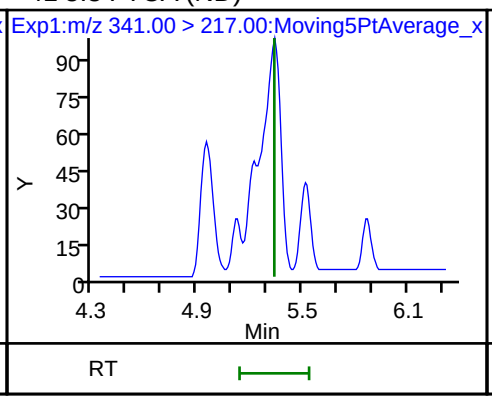
40 PFECA G (ND)



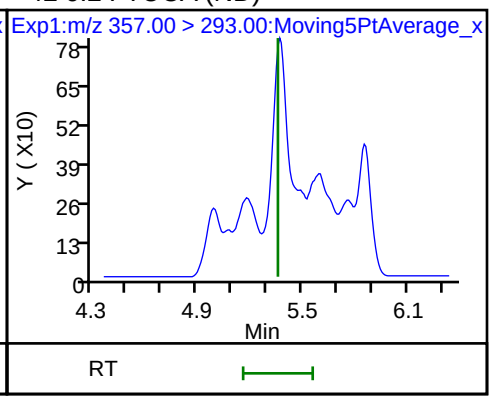
41 5:3 FTCA (ND)



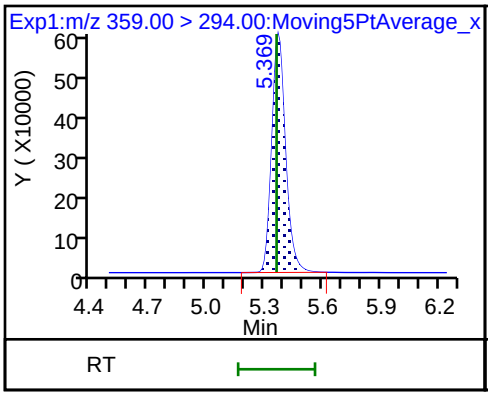
41 5:3 FTCA (ND)



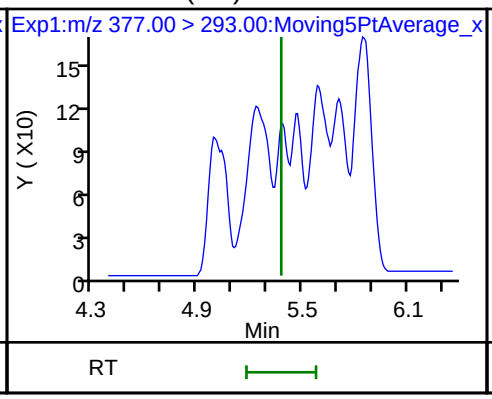
42 6:2 FTUCA (ND)



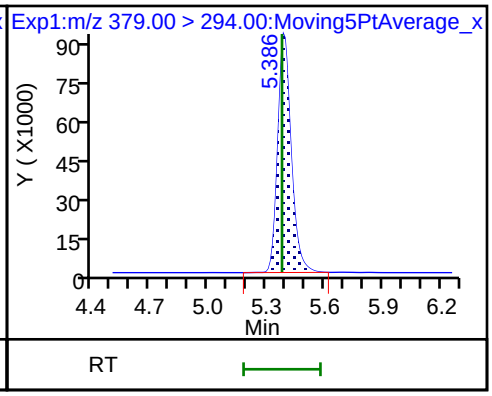
D 43 13C-6:2 FTUCA



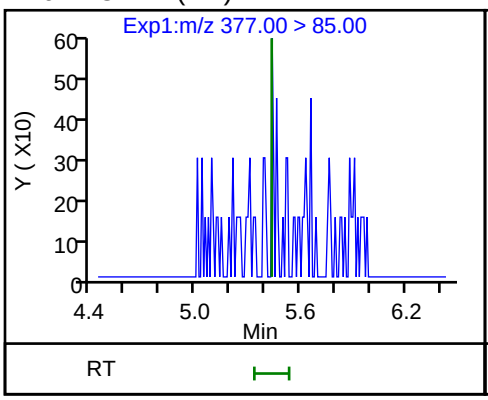
44 6:2 FTCA (ND)



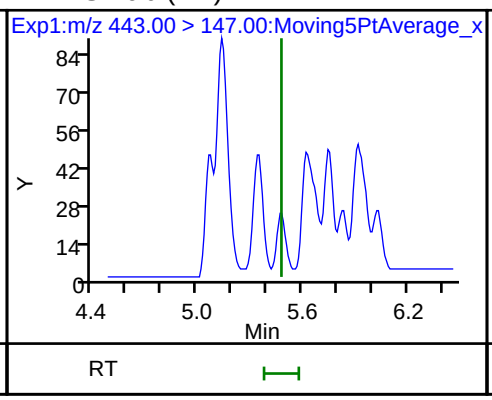
D 45 13C-6:2 FTCA



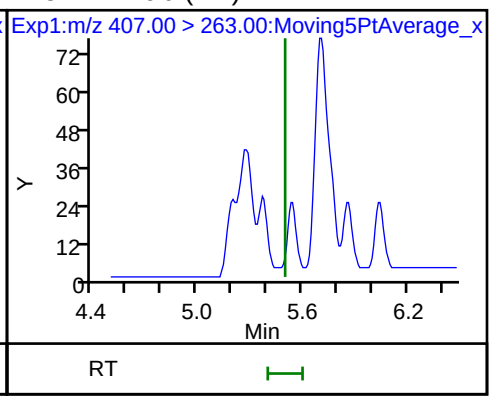
46 PFO4DA (ND)



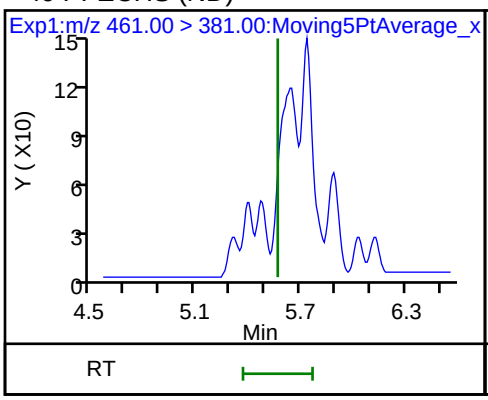
47 PS Acid (ND)



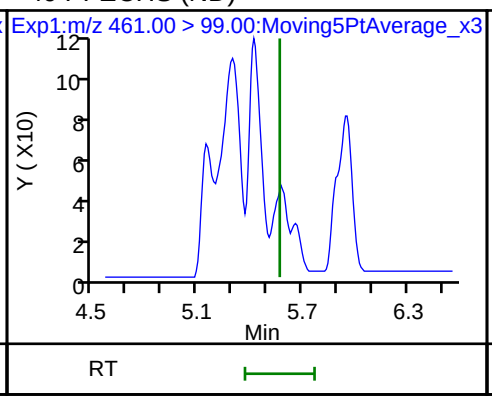
48 EVE Acid (ND)



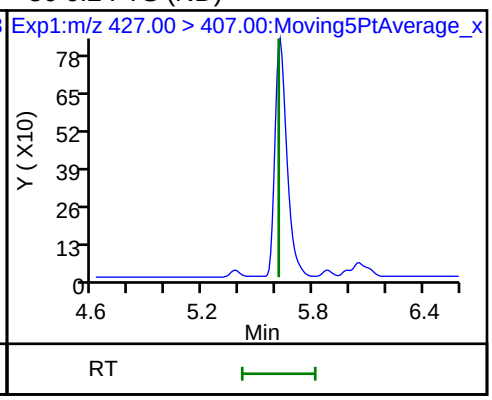
49 PFECHS (ND)



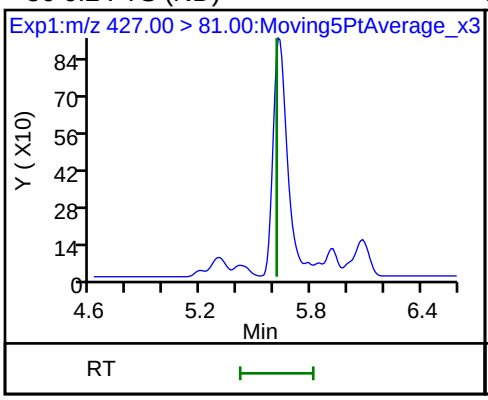
49 PFECHS (ND)



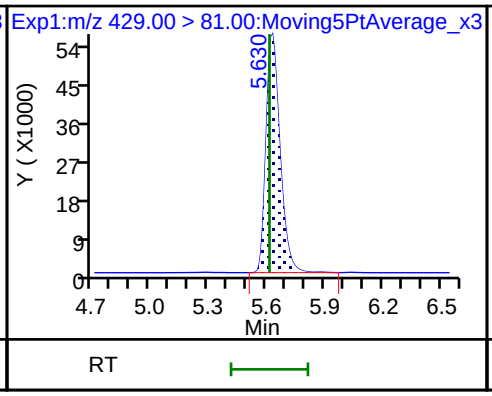
50 6:2 FTS (ND)



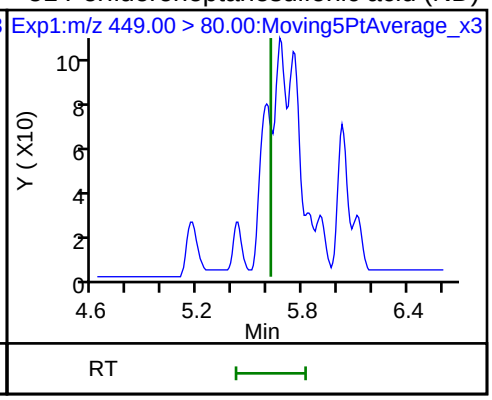
50 6:2 FTS (ND)



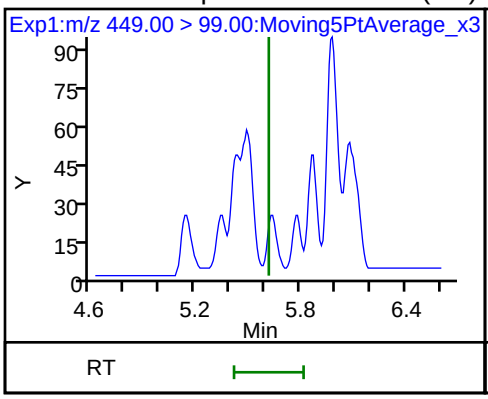
D 52 M2-6:2 FTS



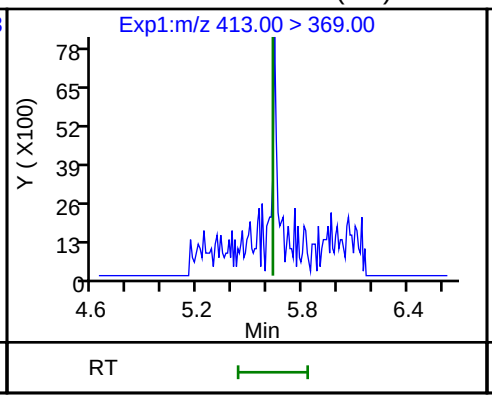
51 Perfluoroheptanesulfonic acid (ND)



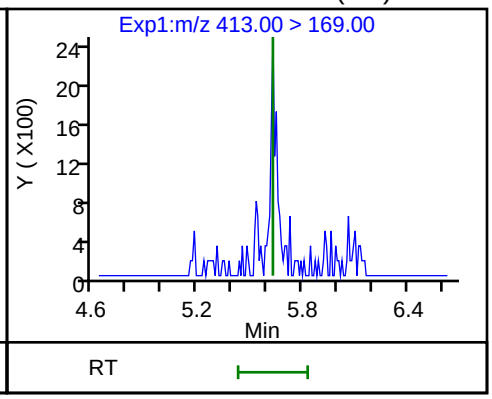
51 Perfluoroheptanesulfonic acid (ND)



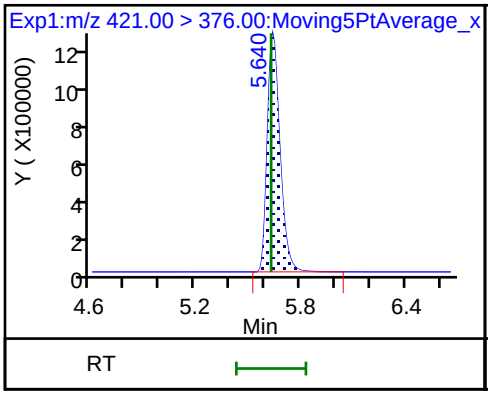
53 Perfluorooctanoic acid (ND)



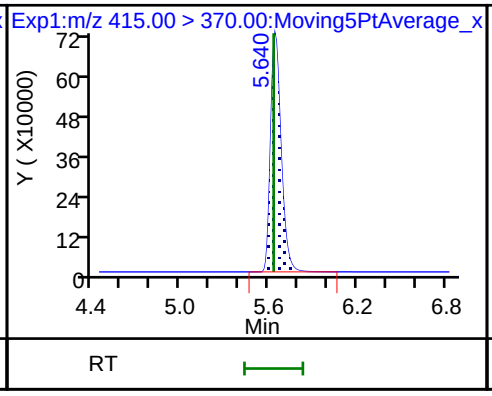
53 Perfluorooctanoic acid (ND)



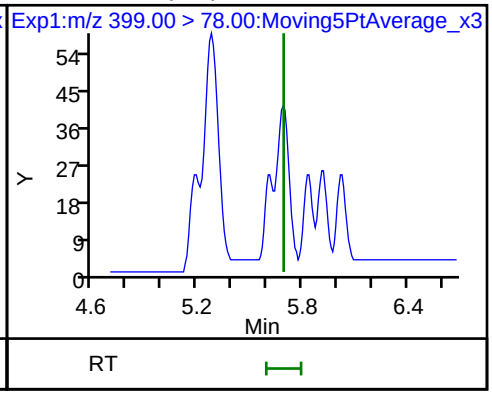
D 54 13C8 PFOA



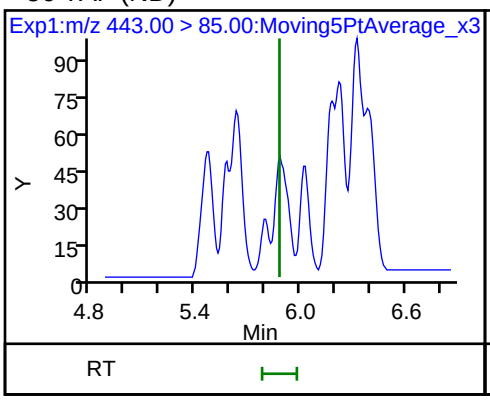
* 55 13C2 PFOA



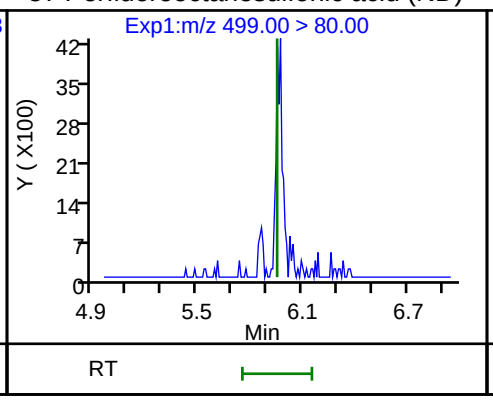
106 FHxSA (ND)



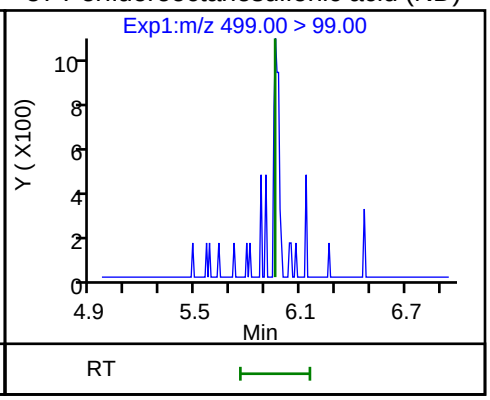
56 TAF (ND)



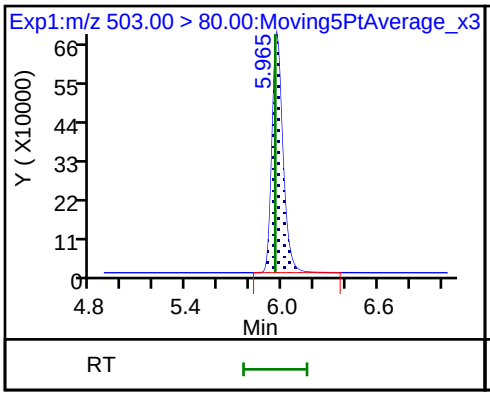
57 Perfluorooctanesulfonic acid (ND)



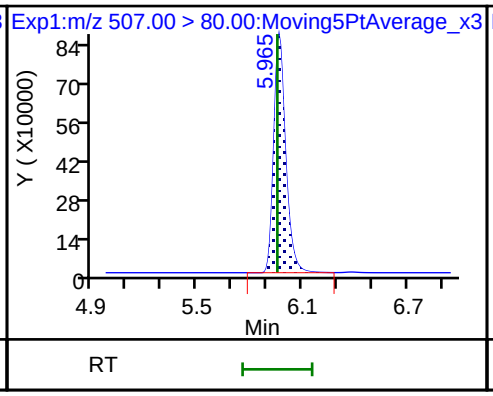
57 Perfluorooctanesulfonic acid (ND)



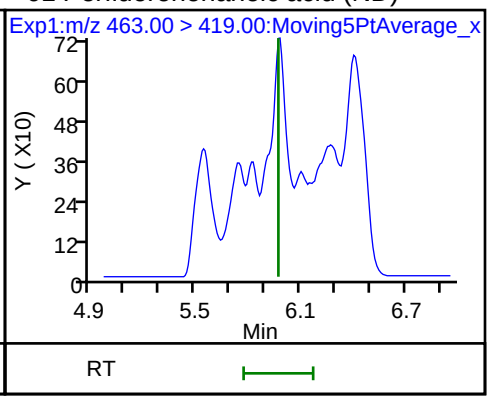
* 59 13C4 PFOS



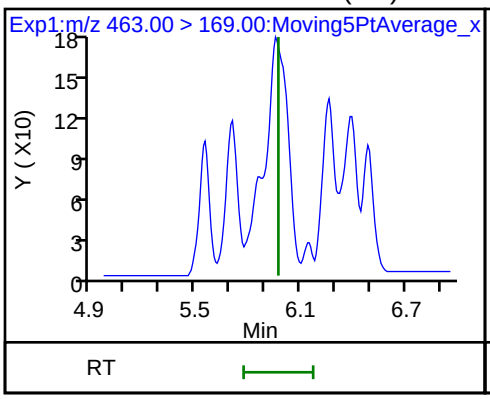
D 58 13C8 PFOS



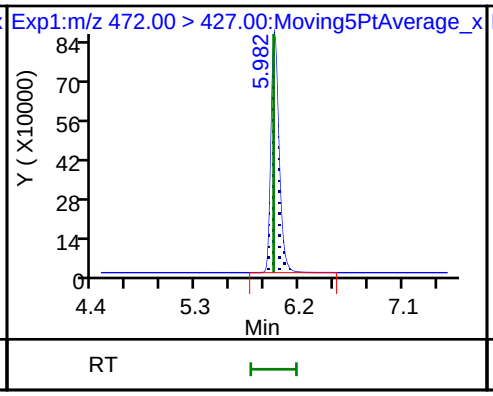
61 Perfluorononanoic acid (ND)



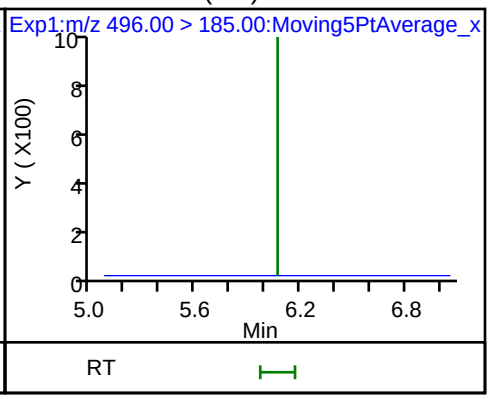
61 Perfluorononanoic acid (ND)



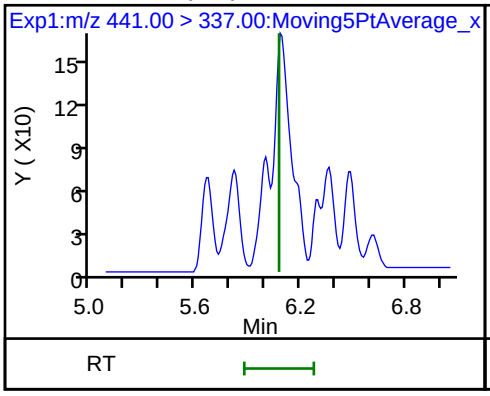
D 60 13C9 PFNA



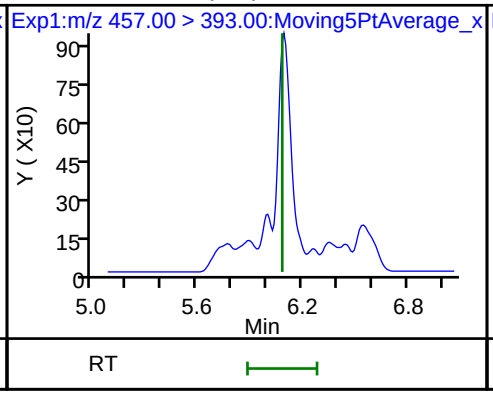
109 HFPO-TrA (ND)



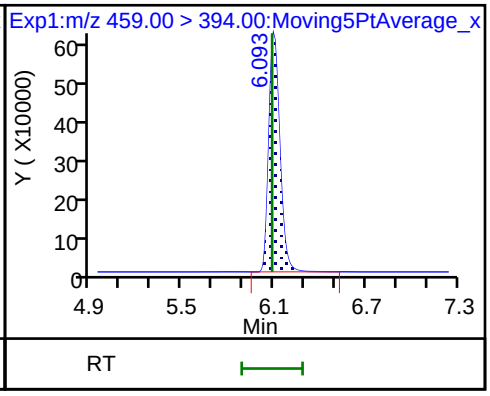
62 7:3 FTCA (ND)



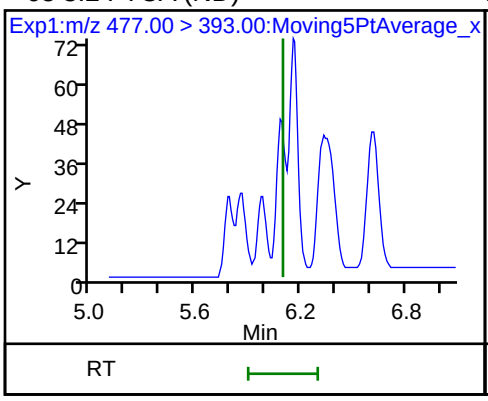
63 8:2 FTUCA (ND)



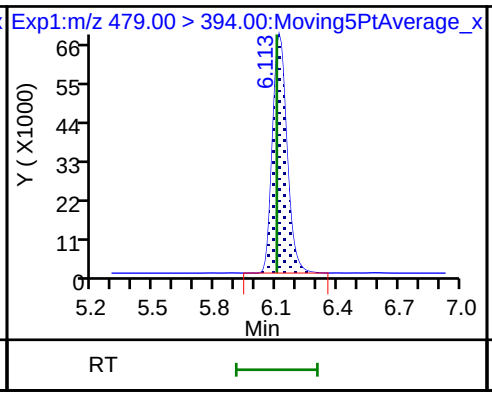
D 64 13C-8:2 FTUCA



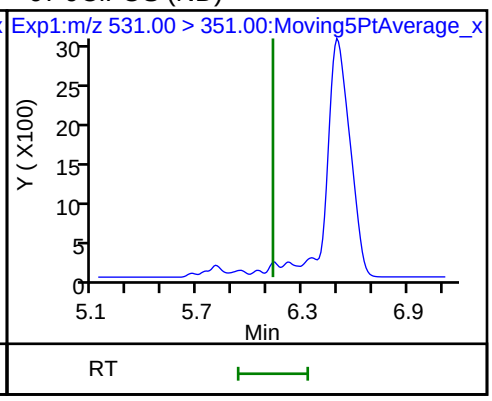
65 8:2 FTCA (ND)



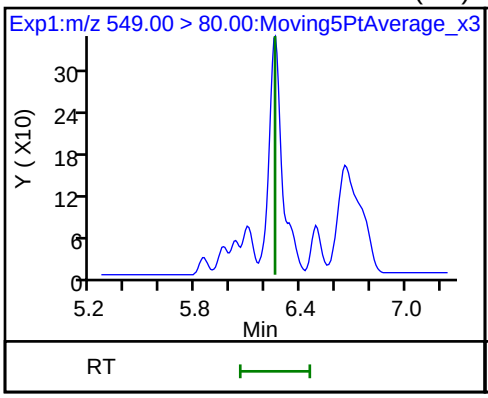
D 66 13C-8:2 FTCA



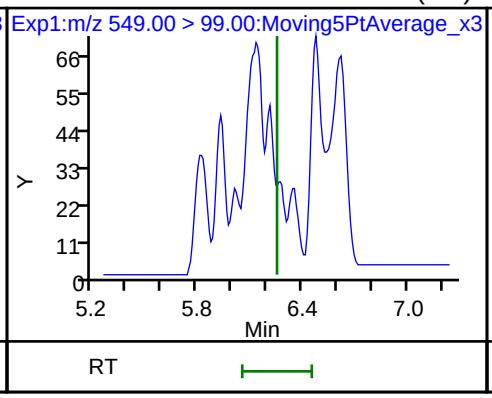
67 9ClFOS (ND)



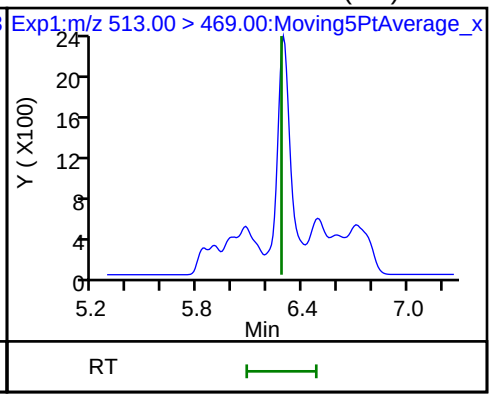
68 Perfluorononanesulfonic acid (ND)



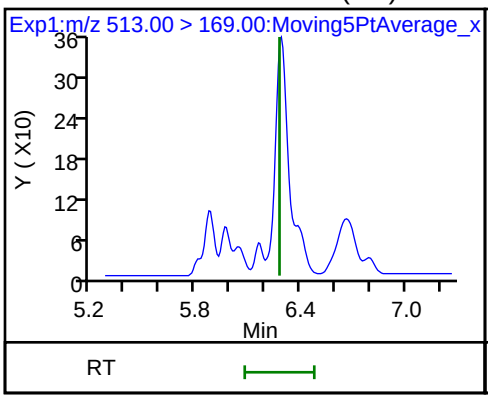
68 Perfluorononanesulfonic acid (ND)



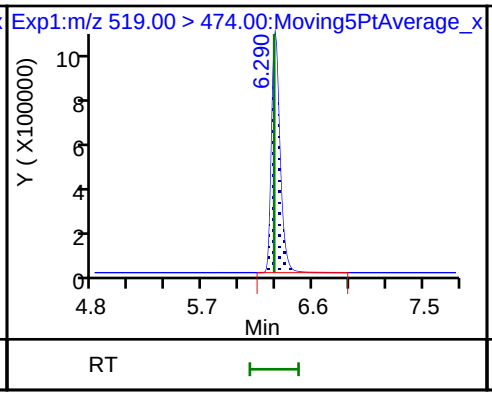
69 Perfluorodecanoic acid (ND)



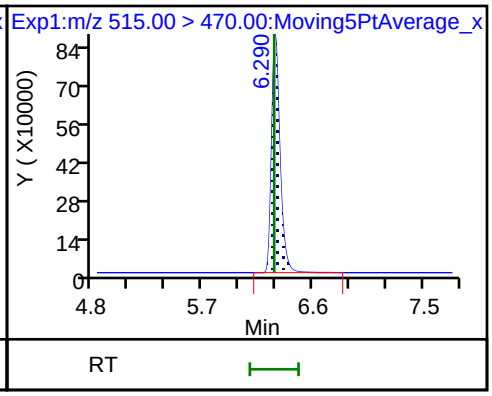
69 Perfluorodecanoic acid (ND)



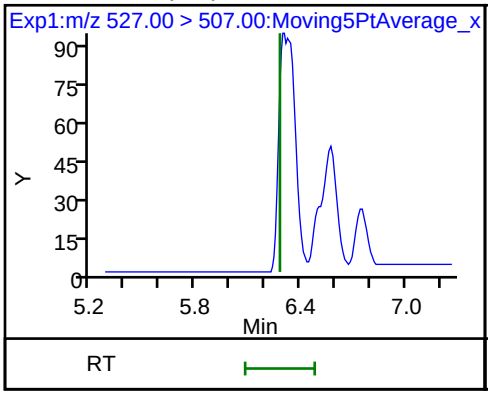
D 71 13C6 PFDA



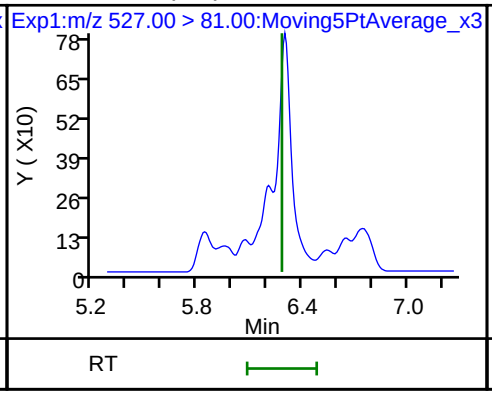
* 70 13C2 PFDA



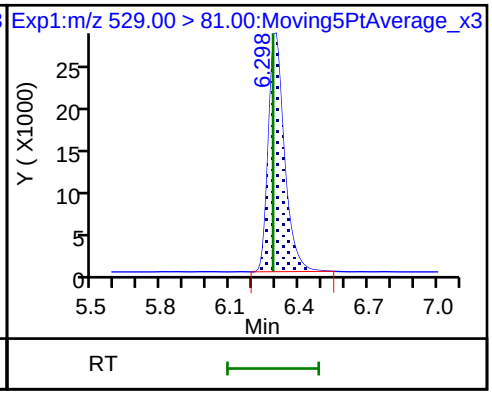
72 8:2 FTS (ND)



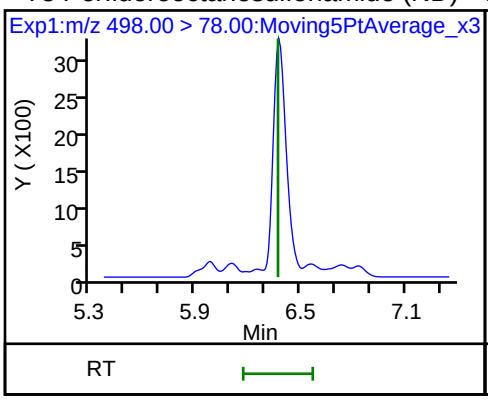
72 8:2 FTS (ND)



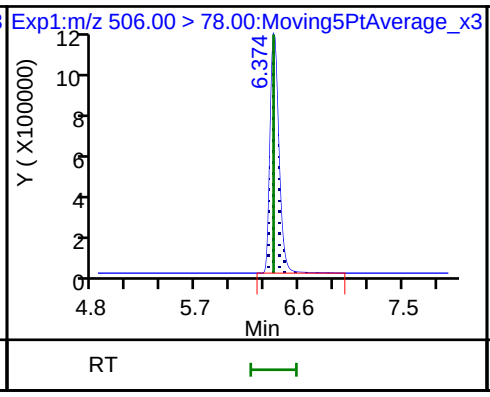
D 73 M2-8:2 FTS



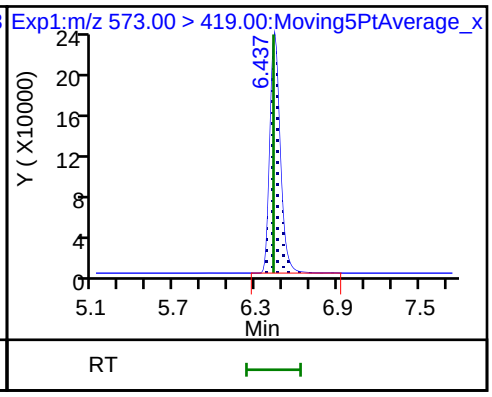
75 Perfluorooctanesulfonamide (ND)



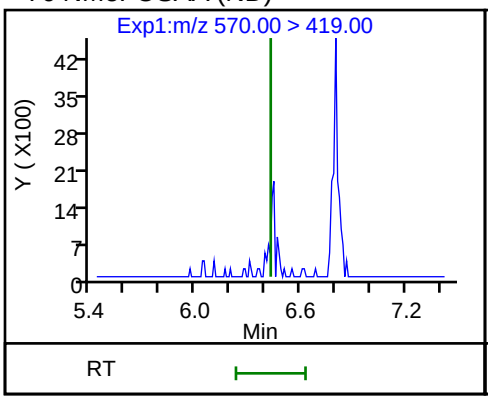
D 74 13C8 FOSA



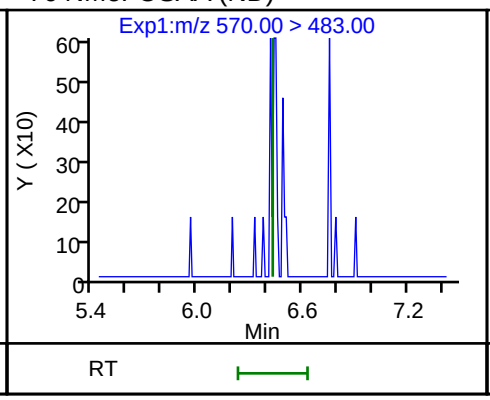
D 77 d3-NMeFOSAA



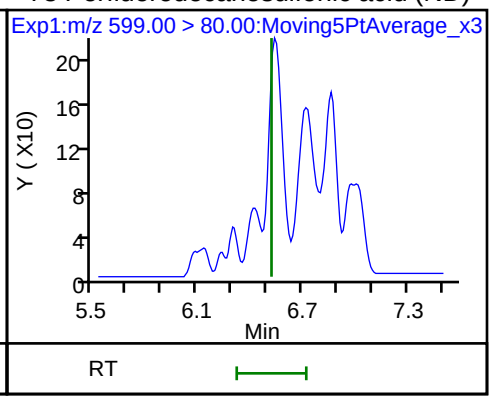
76 NMeFOSAA (ND)



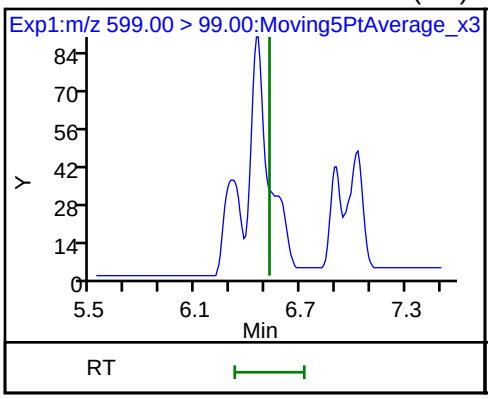
76 NMeFOSAA (ND)



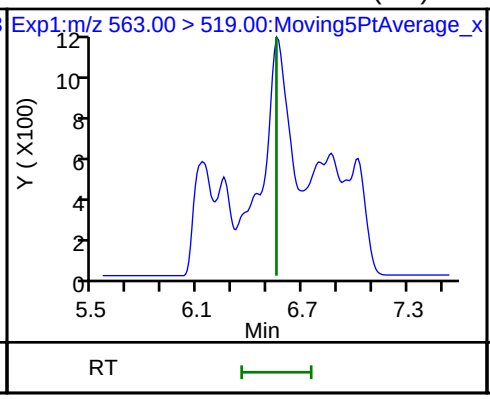
78 Perfluorodecanesulfonic acid (ND)



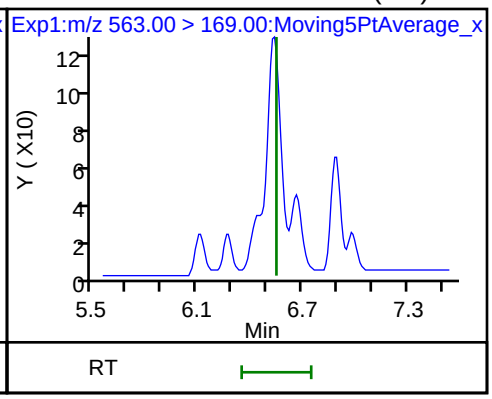
78 Perfluorodecanesulfonic acid (ND)



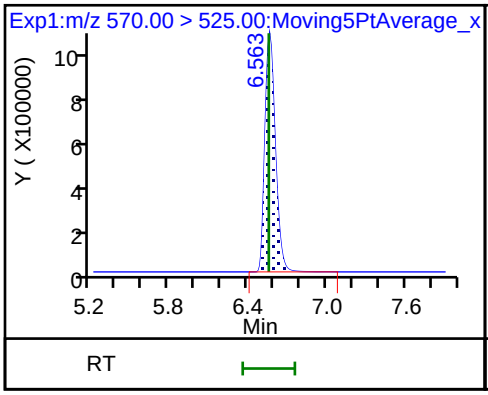
79 Perfluoroundecanoic acid (ND)



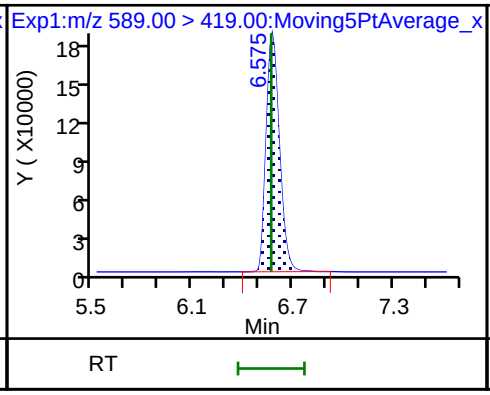
79 Perfluoroundecanoic acid (ND)



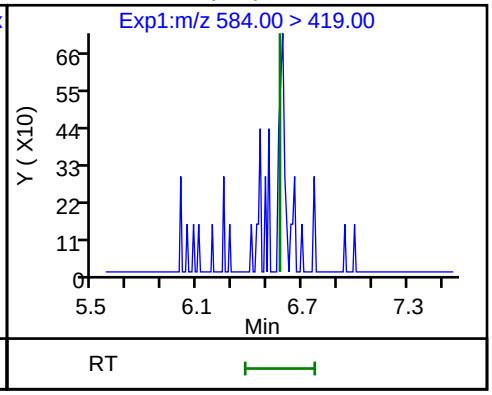
D 80 13C7 PFUnA



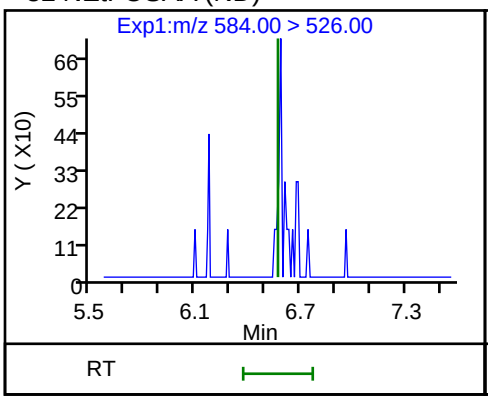
D 81 d5-NEtFOSAA



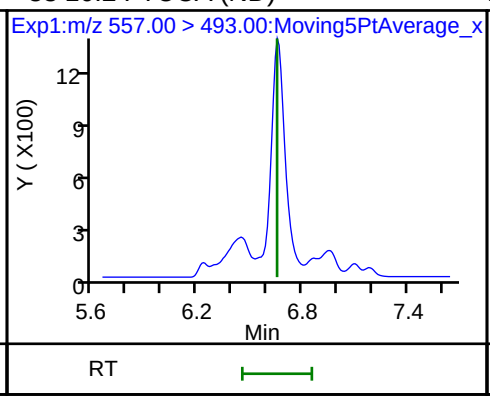
82 NEtFOSAA (ND)



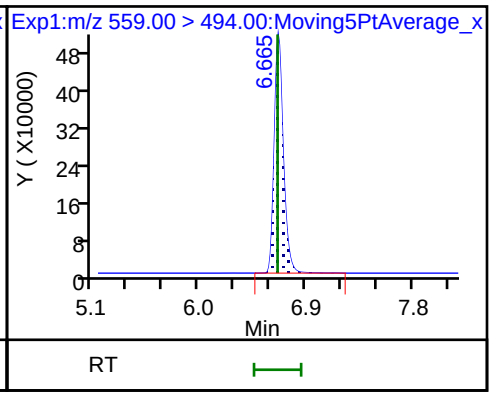
82 NEtFOSAA (ND)



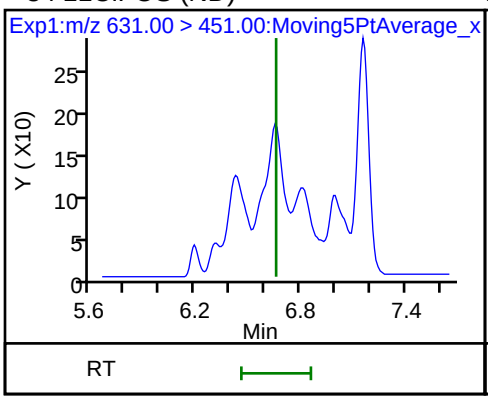
83 10:2 FTUCA (ND)



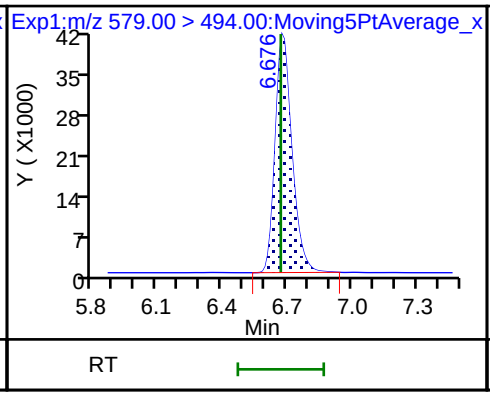
D 85 13C-10:2 FTUCA



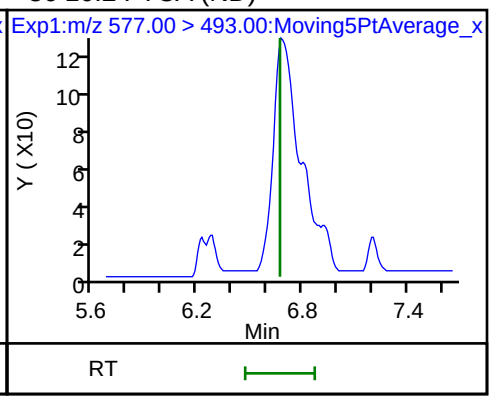
84 11ClFOS (ND)



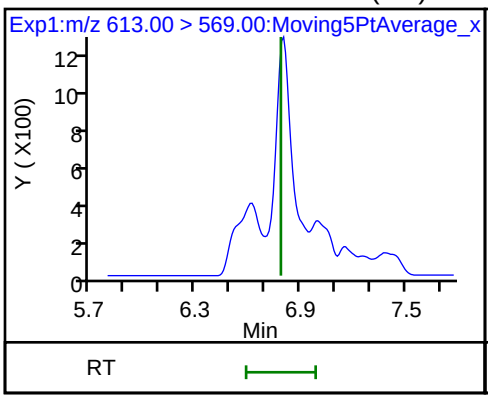
D 87 13C-10:2 FTCA



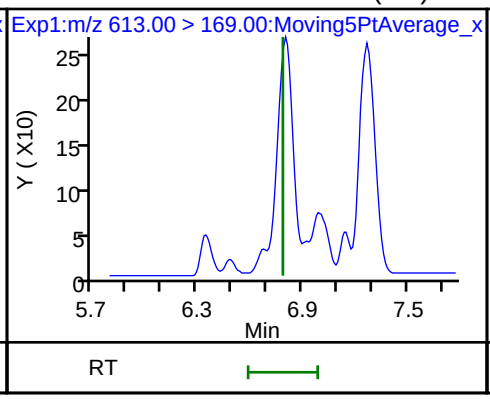
86 10:2 FTCA (ND)



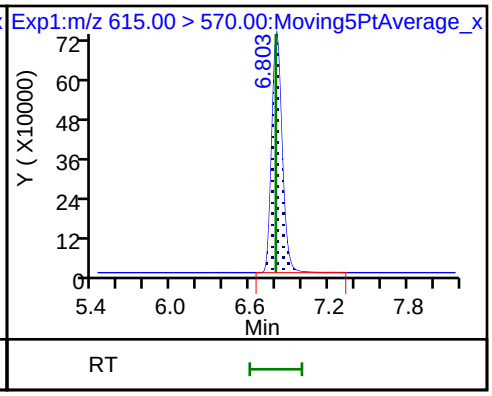
88 Perfluorododecanoic acid (ND)



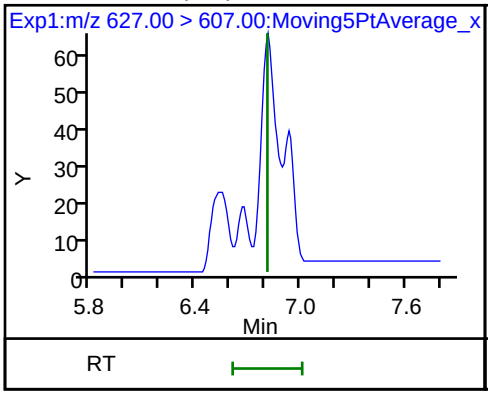
88 Perfluorododecanoic acid (ND)



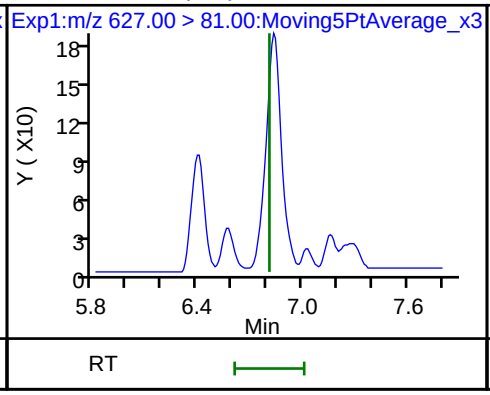
D 89 13C2-PFDoDA



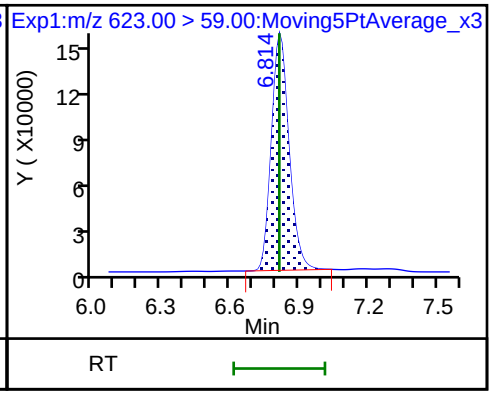
90 10:2 FTS (ND)



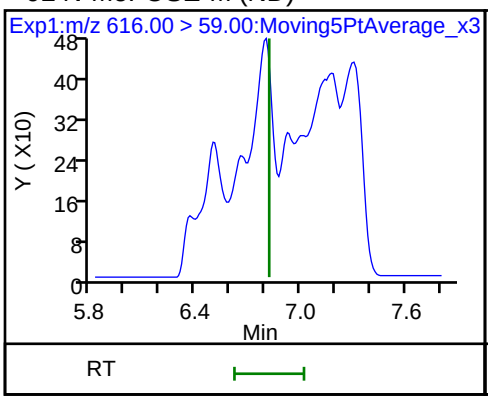
90 10:2 FTS (ND)



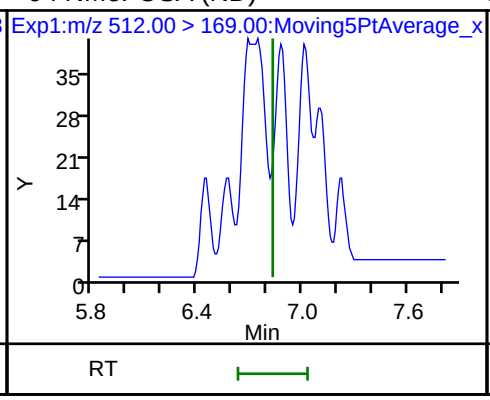
D 91 d7-N-MeFOSE-M



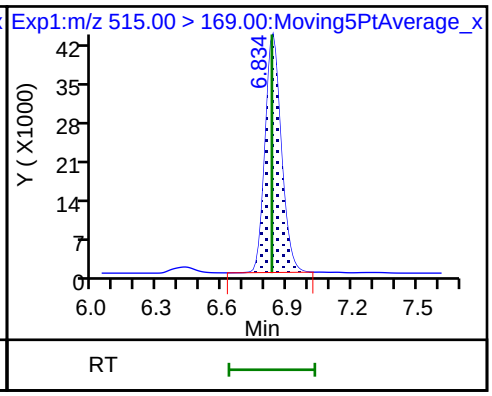
92 N-MeFOSE-M (ND)



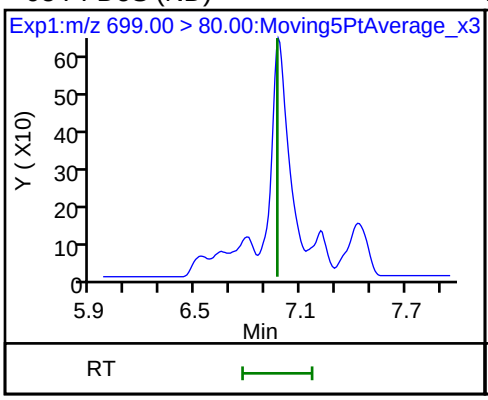
94 NMeFOSA (ND)



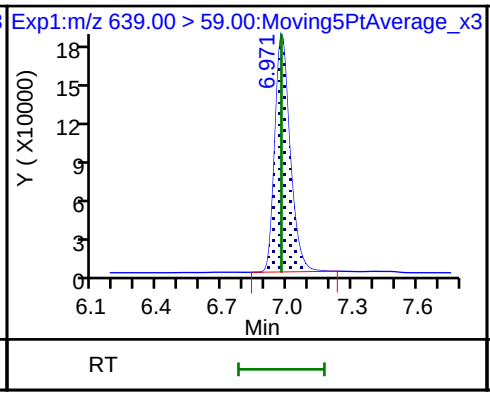
D 93 d3-NMePFOSA



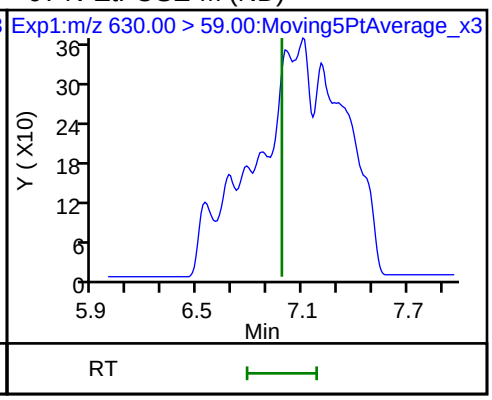
95 PFDoS (ND)



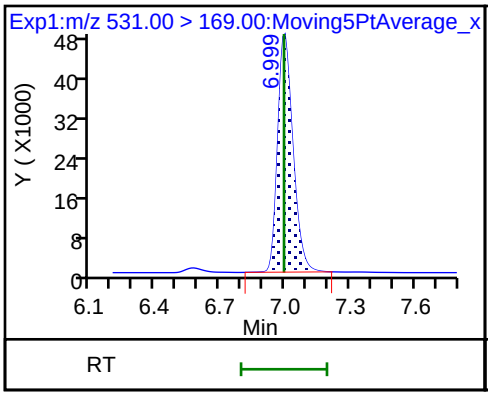
D 96 d9-N-EtFOSE-M



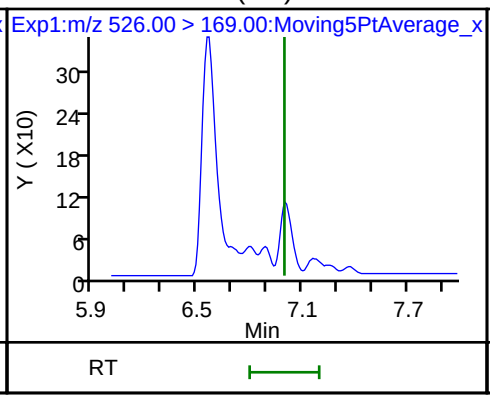
97 N-EtFOSE-M (ND)



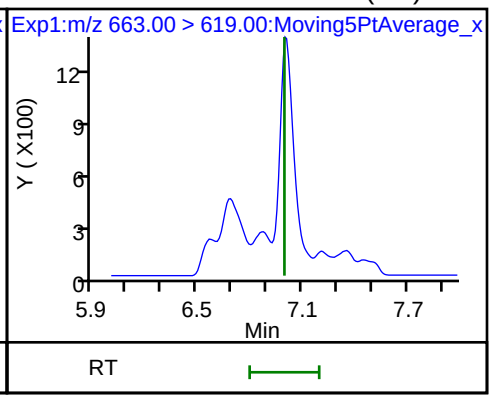
D 98 d5-NEtPFOSA



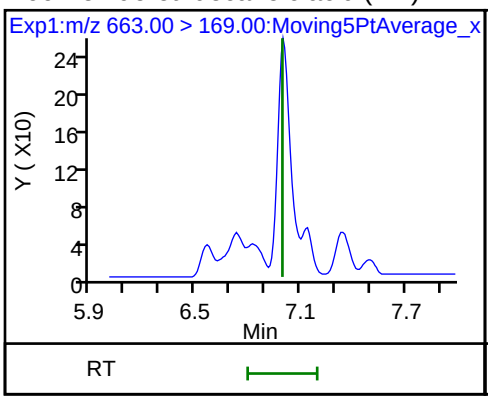
100 N-EtFOSA-M (ND)



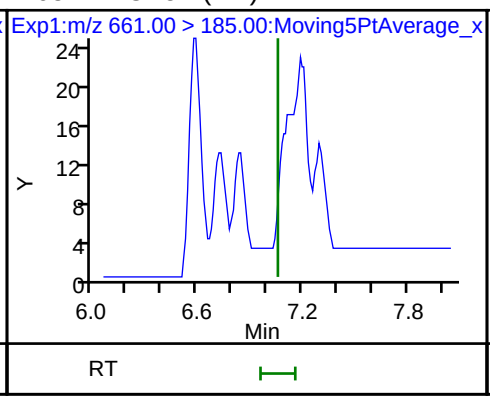
99 Perfluorotridecanoic acid (ND)



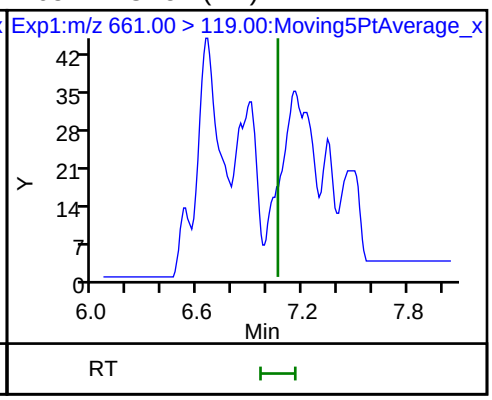
99 Perfluorotridecanoic acid (ND)



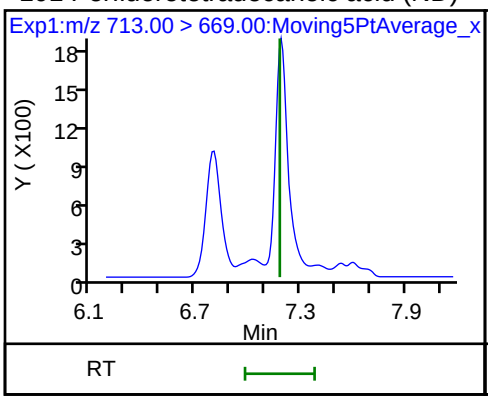
105 HFPOTeA (ND)



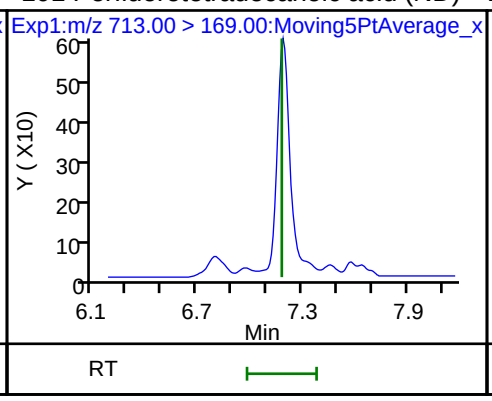
105 HFPOTeA (ND)



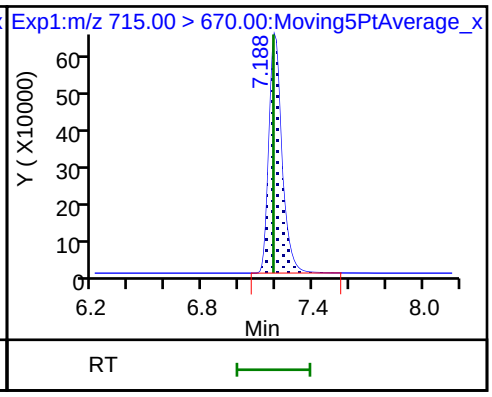
101 Perfluorotetradecanoic acid (ND)



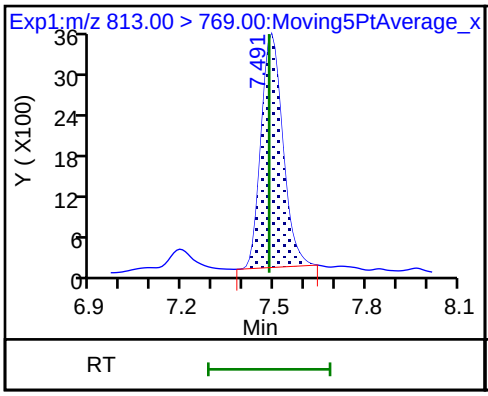
101 Perfluorotetradecanoic acid (ND)



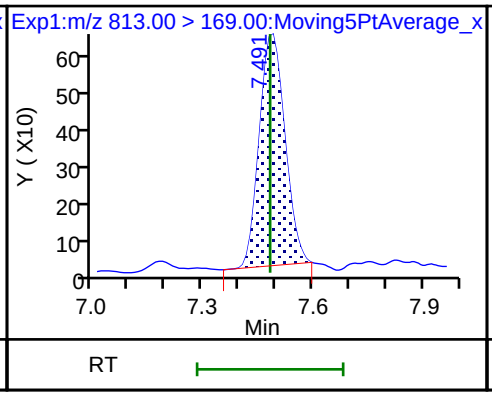
D 102 13C2 PFTeDA



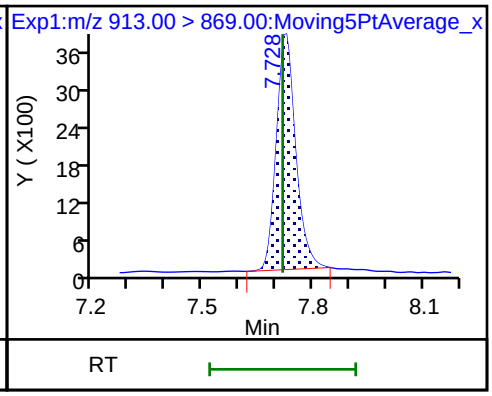
103 Perfluorohexadecanoic acid



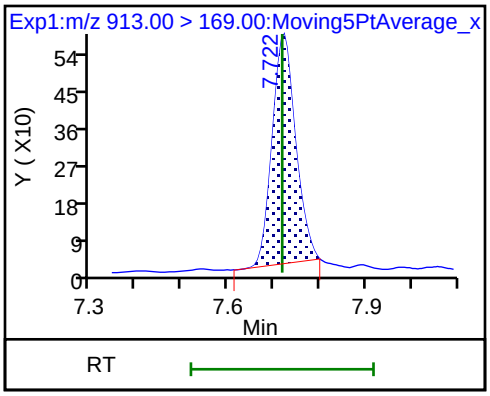
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

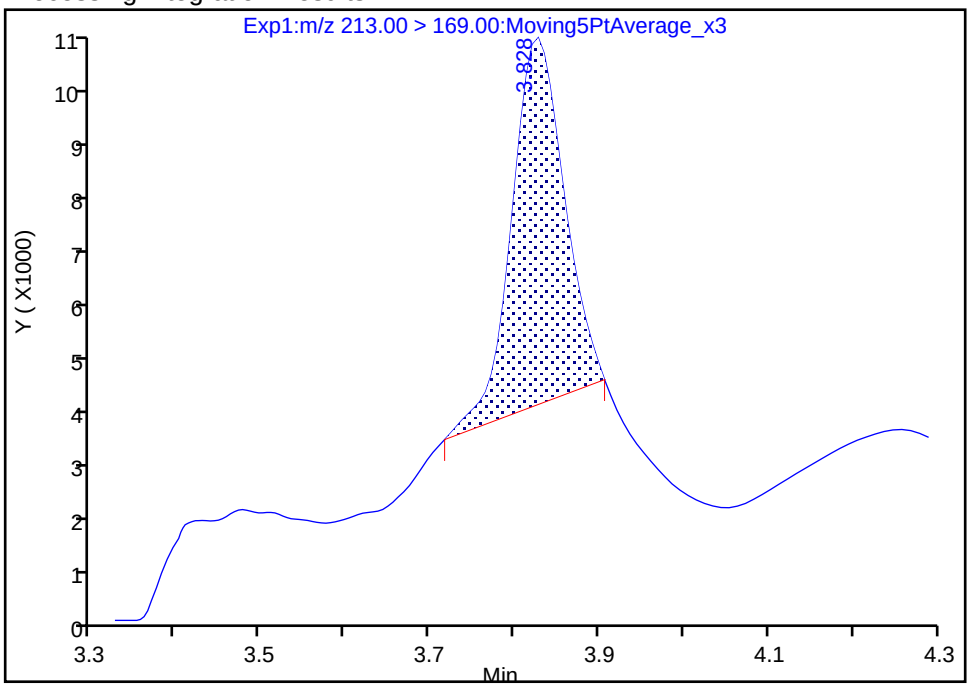
Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-15.d				
Injection Date:	02-Mar-2022 11:00:12	Instrument ID:	30728		
Lims ID:	410-73309-A-1-J	Lab Sample ID:	410-73309-1		
Client ID:	Import-1-20220216				
Operator ID:	US19_USR_INS20261	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

7 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

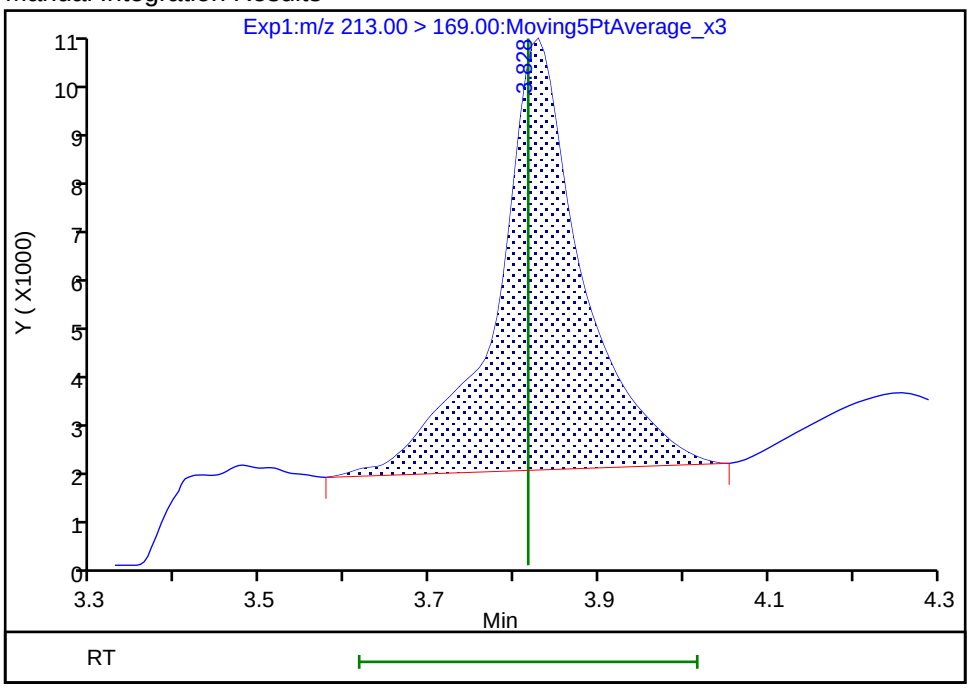
Processing Integration Results

RT: 3.83
Area: 28044
Amount: 0.064471
Amount Units: ng/ml



Manual Integration Results

RT: 3.83
Area: 59632
Amount: 0.137090
Amount Units: ng/ml



Reviewer: glicka, 02-Mar-2022 12:08:15
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID: Import-2-20220216
Lab Sample ID: 410-73309-2
Matrix: Solid
Lab File ID: 22MAR02-18.d
Analysis Method: 537 IDA
Date Collected: 02/16/2022 12:30
Extraction Method: SHAKE
Date Extracted: 03/01/2022 07:26
Sample wt/vol: 10.09(g)
Date Analyzed: 03/02/2022 11:33
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 4(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture: 3.4
GPC Cleanup:(Y/N) N
Analysis Batch No.: 229099
Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	ND		0.062	0.021
375-85-9	Perfluoroheptanoic acid	ND		0.062	0.021
335-67-1	Perfluorooctanoic acid	ND		0.062	0.021
375-95-1	Perfluorononanoic acid	ND		0.062	0.021
335-76-2	Perfluorodecanoic acid	ND		0.062	0.021
72629-94-8	Perfluorotridecanoic acid	ND		0.062	0.021
376-06-7	Perfluorotetradecanoic acid	ND		0.062	0.021
375-73-5	Perfluorobutanesulfonic acid	ND		0.21	0.041
355-46-4	Perfluorohexanesulfonic acid	ND		0.062	0.021
1763-23-1	Perfluorooctanesulfonic acid	ND		0.062	0.021
2991-50-6	NEtFOSAA	ND		0.21	0.021
2355-31-9	NMeFOSAA	ND		0.21	0.021
375-92-8	Perfluoroheptanesulfonic acid	ND		0.062	0.021
335-77-3	Perfluorodecanesulfonic acid	ND		0.062	0.021
754-91-6	Perfluorooctanesulfonamide	ND		0.062	0.021
375-22-4	Perfluorobutanoic acid	ND		0.21	0.082
2058-94-8	Perfluoroundecanoic acid	ND		0.062	0.021
307-55-1	Perfluorododecanoic acid	ND		0.062	0.021
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.21	0.062
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.31	0.062
2706-90-3	Perfluoropentanoic acid	ND		0.062	0.021

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: Import-2-20220216 Lab Sample ID: 410-73309-2

Matrix: Solid Lab File ID: 22MAR02-18.d

Analysis Method: 537 IDA Date Collected: 02/16/2022 12:30

Extraction Method: SHAKE Date Extracted: 03/01/2022 07:26

Sample wt/vol: 10.09(g) Date Analyzed: 03/02/2022 11:33

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 4(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 3.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 229099 Units: ng/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	97		15-200
STL02279	M2-6:2 FTS	109		10-200
STL02577	13C5 PFHxA	90		10-174
STL01892	13C4 PFHpA	95		10-178
STL01052	13C8 PFOA	98		26-159
STL02578	13C9 PFNA	88		26-165
STL02579	13C6 PFDA	93		26-161
STL02580	13C7 PFUnA	92		12-173
STL02703	13C2-PFDoDA	83		11-166
STL02116	13C2 PFTeDA	85		10-169
STL02337	13C3 PFBS	91		27-179
STL02581	13C3 PFHxS	95		24-171
STL01054	13C8 PFOS	91		41-154
STL02118	d3-NMeFOSAA	74		10-178
STL02117	d5-NEtFOSAA	88		10-193
STL01056	13C8 FOSA	78		14-163
STL00992	13C4 PFBA	88		28-153
STL01893	13C5 PFPeA	89		24-161

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-18.d
Lims ID: 410-73309-A-2-D
Client ID: Import-2-20220216
Sample Type: Client
Inject. Date: 02-Mar-2022 11:33:26 ALS Bottle#: 8 Worklist Smp#: 10
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: 410-73309-A-2-D
Misc. Info.: Plate: 1 Rack: 1 410-0051478-010
Operator ID: US19_USR_INS20261 Instrument ID: 30728

Method: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 10:20:58 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617

First Level Reviewer: glicka Date: 02-Mar-2022 12:12:24
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 6 13C4 PFBA										
217.00 > 172.00	3.814	3.816	-0.002	0.998	5091346	8.79		87.9	110082	
7 Perfluorobutanoic acid										M
213.00 > 169.00	3.821	3.816	0.005	1.002	61250	0.1397			151	M
* 8 13C3-PFBA										
216.00 > 172.00	3.821	3.817	0.004		2680379	5.00			7525	
16 Perfluoropentanoic acid										
263.00 > 219.00		4.404				ND				
D 17 13C5 PFPeA										
268.00 > 223.00	4.405	4.404	0.001	1.153	4155317	8.85		88.5	112362	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00		4.460				0				
299.00 > 99.00		4.460								
D 19 13C3 PFBS										
302.00 > 80.00	4.463	4.462	0.001	1.168	4027209	8.49		91.3	213243	
26 Perfluorohexanoic acid										
313.00 > 269.00		4.843				ND				
313.00 > 119.00		4.843								
D 27 13C5 PFHxA										
318.00 > 273.00	4.846	4.846	0.0	0.859	5473072	8.96		89.6	178609	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00		5.254				ND				
399.00 > 99.00		5.254								
36 Perfluoroheptanoic acid										
363.00 > 319.00		5.254				0				
363.00 > 169.00		5.254								
D 37 13C3 PFHxS										
402.00 > 80.00	5.255	5.254	0.001	0.932	3920257	9.03		95.4	244755	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 38 13C4 PFHpA										
367.00 > 322.00	5.255	5.255	0.0	0.932	6285984	9.55		95.5	167004	
50 6:2 FTS										
427.00 > 407.00		5.613				0				
427.00 > 81.00		5.613								
D 52 M2-6:2 FTS										
429.00 > 81.00	5.619	5.614	0.005	0.997	274478	10.3		109	14057	
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00		5.618				ND				
449.00 > 99.00		5.618								
53 Perfluorooctanoic acid										
413.00 > 369.00		5.630				ND				
413.00 > 169.00		5.630								
D 54 13C8 PFOA										
421.00 > 376.00	5.638	5.631	0.007	1.000	6294842	9.76		97.6	212824	
* 55 13C2 PFOA										
415.00 > 370.00	5.638	5.631	0.007		2633534	5.00			107363	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00		5.954				ND				
499.00 > 99.00		5.954								
* 59 13C4 PFOS										
503.00 > 80.00	5.961	5.955	0.006		2399886	4.78			171151	
D 58 13C8 PFOS										
507.00 > 80.00	5.961	5.955	0.006	1.000	4215204	8.67		90.7	89440	
61 Perfluorononanoic acid										
463.00 > 419.00		5.973				ND				
463.00 > 169.00		5.973								
D 60 13C9 PFNA										
472.00 > 427.00	5.979	5.975	0.004	1.003	4211340	8.85		88.5	224804	
69 Perfluorodecanoic acid										
513.00 > 469.00		6.279				ND				
513.00 > 169.00		6.279								
D 71 13C6 PFDA										
519.00 > 474.00	6.286	6.282	0.004	1.000	5373573	9.26		92.6	285209	
* 70 13C2 PFDA										
515.00 > 470.00	6.286	6.282	0.004		3040658	5.00			216360	
72 8:2 FTS										
527.00 > 507.00		6.282				ND				
527.00 > 81.00		6.282								
D 73 M2-8:2 FTS										
529.00 > 81.00	6.286	6.285	0.001	1.000	140497	9.33		97.4	9906	
75 Perfluorooctanesulfonamide										
498.00 > 78.00		6.371				0				
D 74 13C8 FOSA										
506.00 > 78.00	6.371	6.375	-0.004	1.013	5841283	7.80		78.0	224337	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.433	6.428	0.005	1.023	1201460	7.36		73.6	77196	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
76 NMeFOSAA										
570.00 > 419.00		6.429				ND				
570.00 > 483.00		6.429								
78 Perfluorodecanesulfonic acid										
599.00 > 80.00		6.522				ND				
599.00 > 99.00		6.522								
79 Perfluoroundecanoic acid										
563.00 > 519.00		6.550				ND				
563.00 > 169.00		6.550								
D 80 13C7 PFUnA										
570.00 > 525.00	6.559	6.557	0.002	1.043	5623962	9.15		91.5	338984	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.571	6.569	0.002	1.045	1023548	8.79		87.9	60881	
82 NEtFOSAA										
584.00 > 419.00		6.570				0				
584.00 > 526.00		6.570								
88 Perfluorododecanoic acid										
613.00 > 569.00		6.787				0				
613.00 > 169.00		6.787								
D 89 13C2-PFDoDA										
615.00 > 570.00	6.800	6.796	0.004	1.082	3880126	8.29		82.9	238173	
99 Perfluorotridecanoic acid										
663.00 > 619.00		6.996				0				
663.00 > 169.00		6.996								
101 Perfluorotetradecanoic acid										
713.00 > 669.00		7.181				0				
713.00 > 169.00		7.181								
D 102 13C2 PFTeDA										
715.00 > 670.00	7.186	7.184	0.002	1.143	3192356	8.48		84.8	110394	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

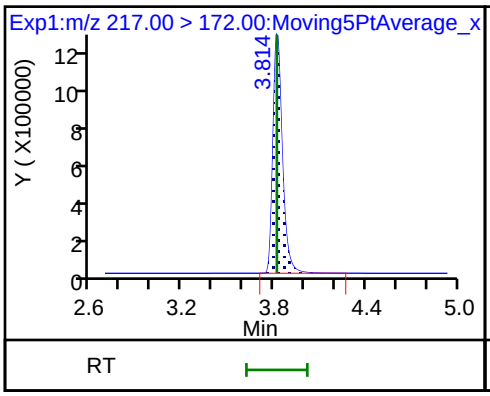
PFC_IS_MOD_00279 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Mar-2022 12:25:44 Chrom Revision: 2.3 16-Feb-2022 17:52:00

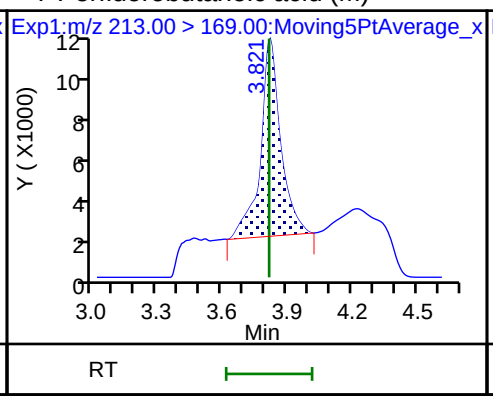
Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-18.d				
Injection Date:	02-Mar-2022 11:33:26	Instrument ID:	30728		
Lims ID:	410-73309-A-2-D	Lab Sample ID:	410-73309-2		
Client ID:	Import-2-20220216				
Operator ID:	US19_USR_INS20261	ALS Bottle#:	8	Worklist Smp#:	10
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		

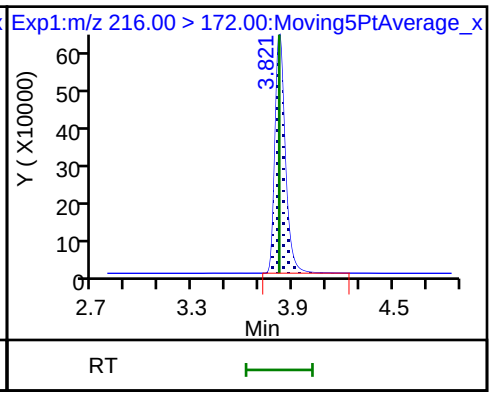
D 6 13C4 PFBA



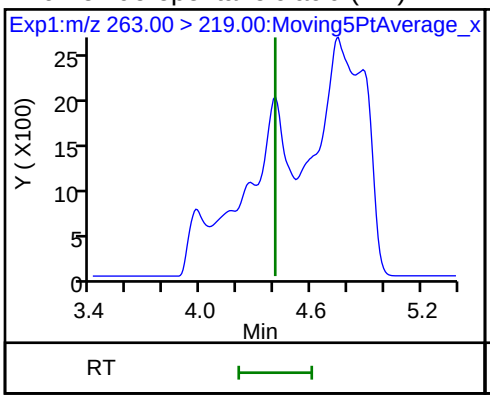
7 Perfluorobutanoic acid (M)



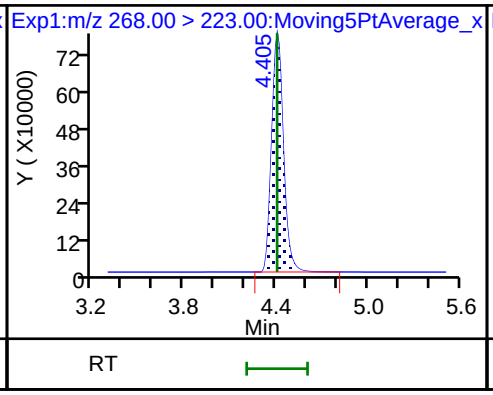
* 8 13C3-PFBA



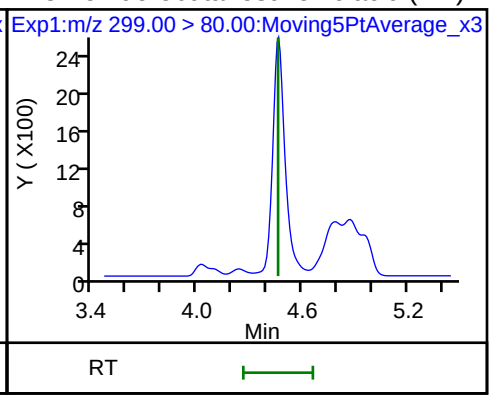
16 Perfluoropentanoic acid (ND)



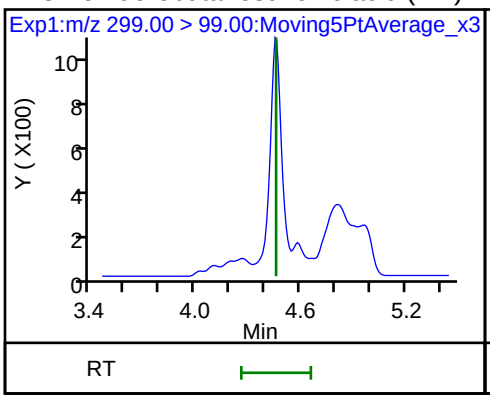
D 17 13C5 PFPeA



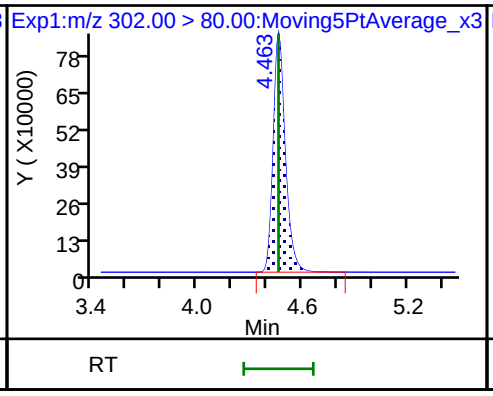
18 Perfluorobutanesulfonic acid (ND)



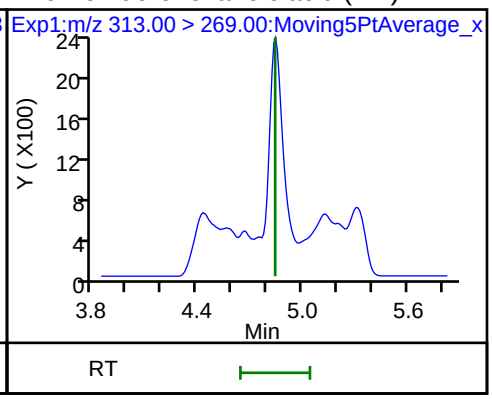
18 Perfluorobutanesulfonic acid (ND)



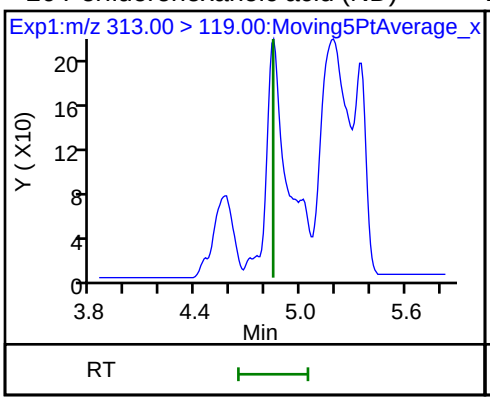
D 19 13C3 PFBS



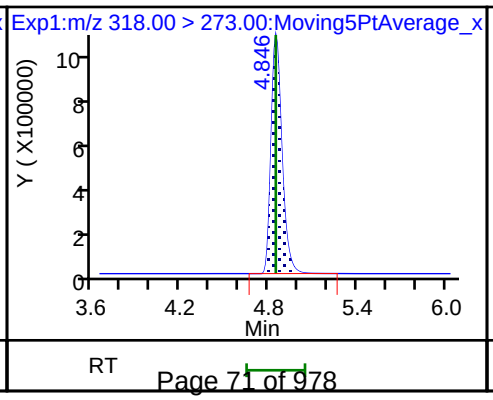
26 Perfluorohexanoic acid (ND)



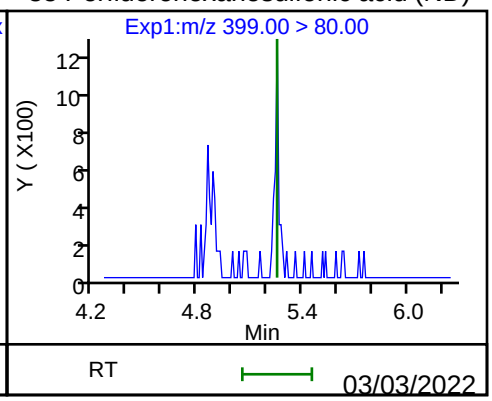
26 Perfluorohexanoic acid (ND)



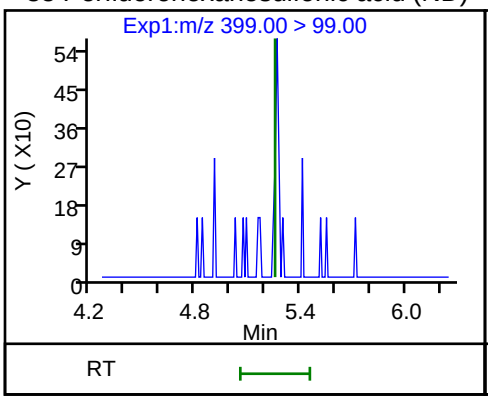
D 27 13C5 PFHxA



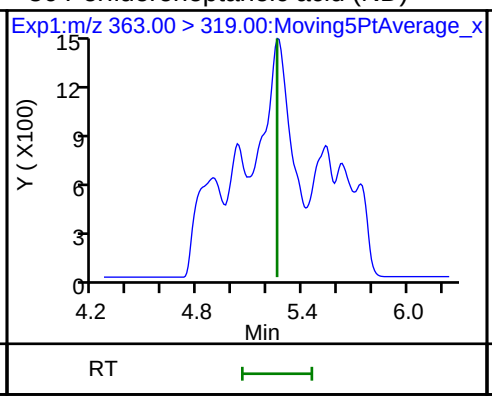
35 Perfluorohexanesulfonic acid (ND)



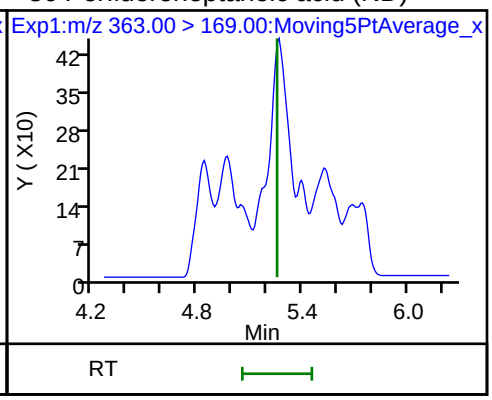
35 Perfluorohexanesulfonic acid (ND)



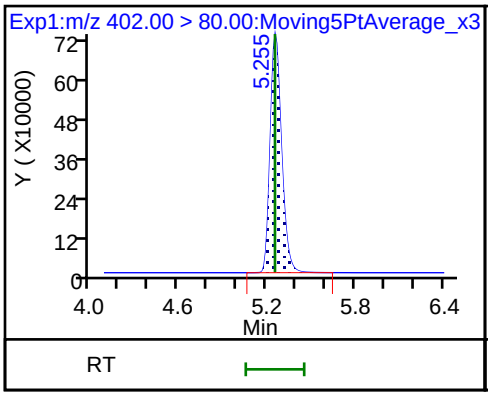
36 Perfluoroheptanoic acid (ND)



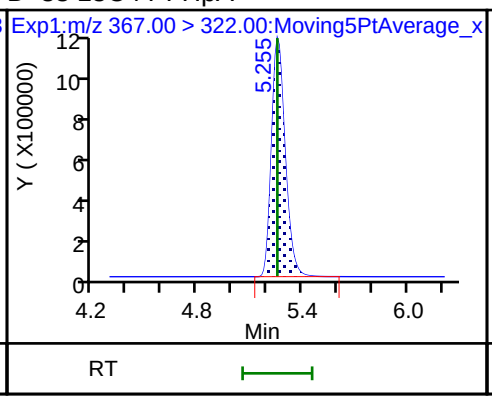
36 Perfluoroheptanoic acid (ND)



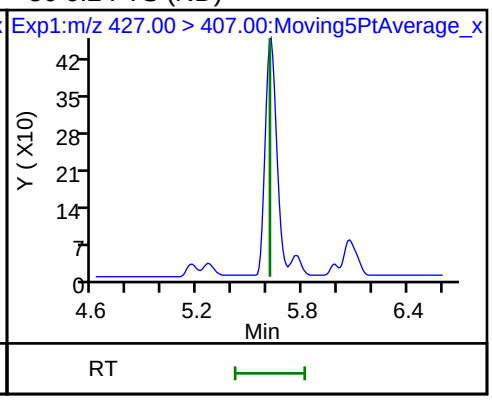
D 37 13C3 PFHxS



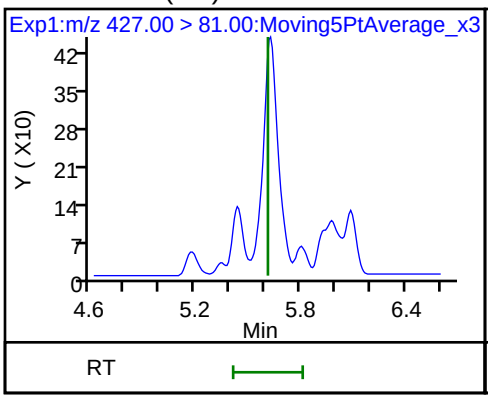
D 38 13C4 PFHpA



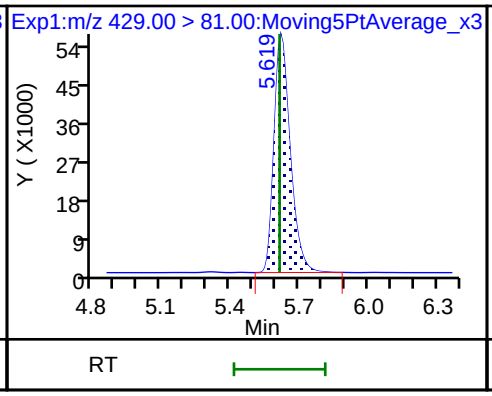
50 6:2 FTS (ND)



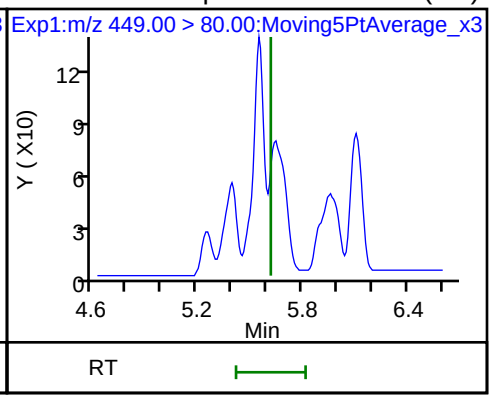
50 6:2 FTS (ND)



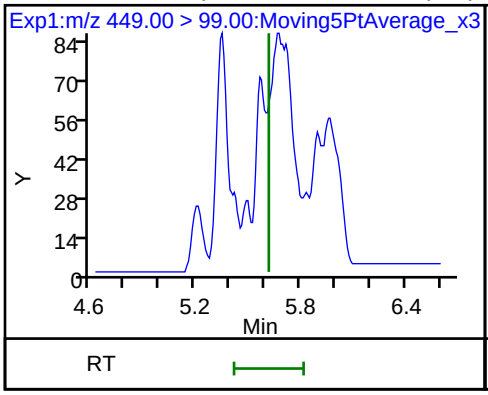
D 52 M2-6:2 FTS



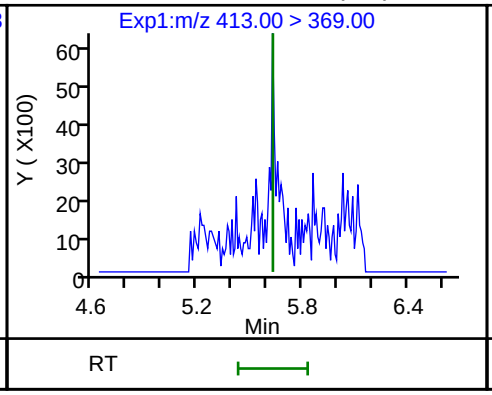
51 Perfluoroheptanesulfonic acid (ND)



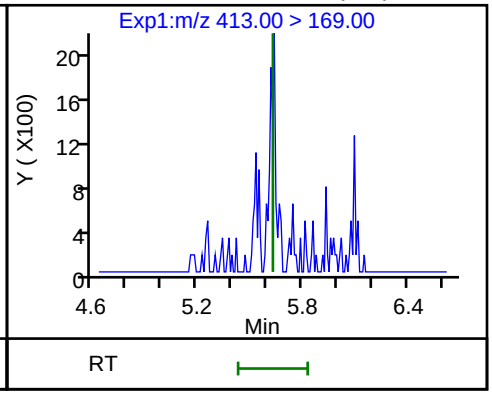
51 Perfluoroheptanesulfonic acid (ND)



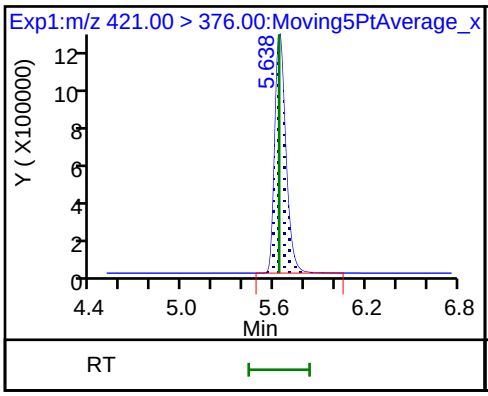
53 Perfluorooctanoic acid (ND)



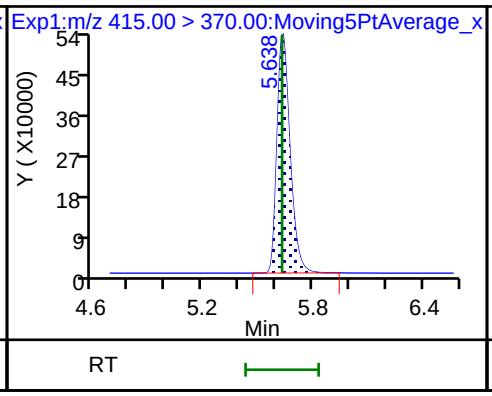
53 Perfluorooctanoic acid (ND)



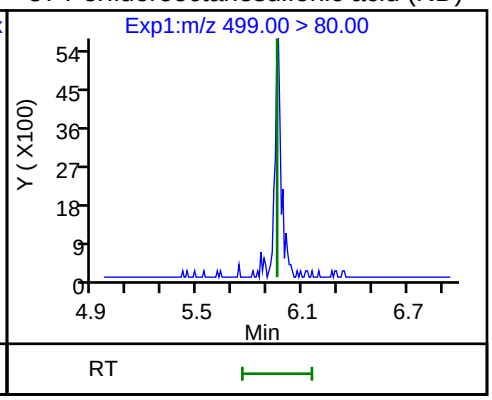
D 54 13C8 PFOA



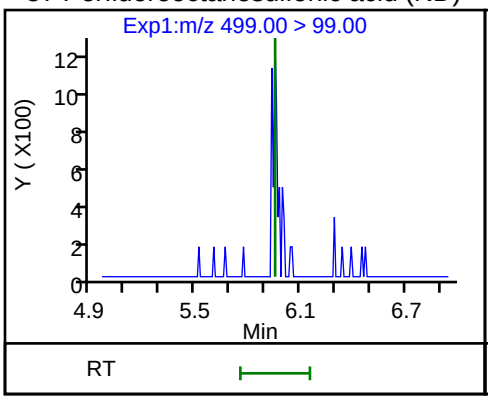
* 55 13C2 PFOA



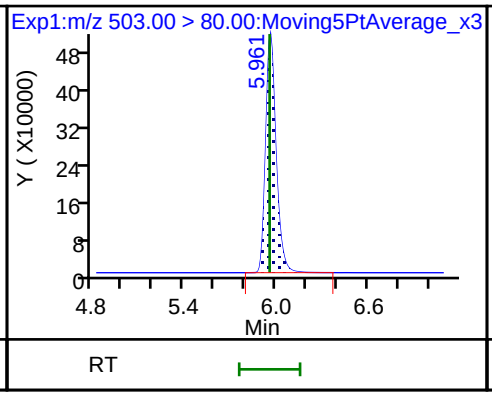
57 Perfluorooctanesulfonic acid (ND)



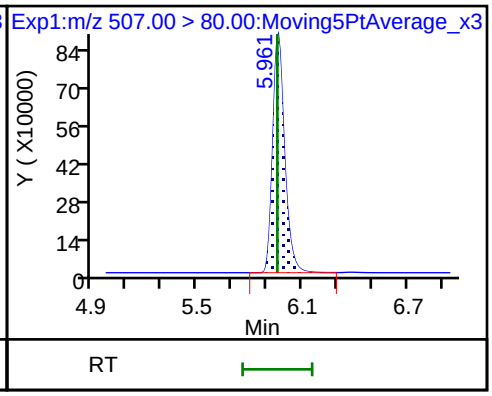
57 Perfluorooctanesulfonic acid (ND)



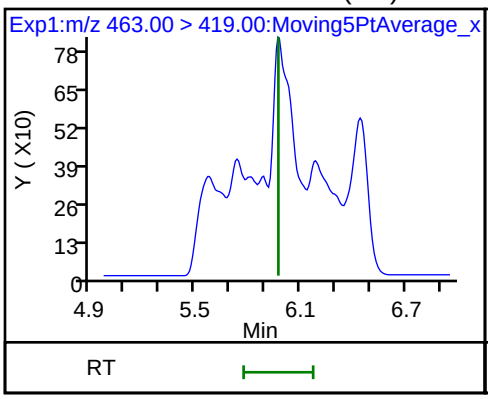
* 59 13C4 PFOS



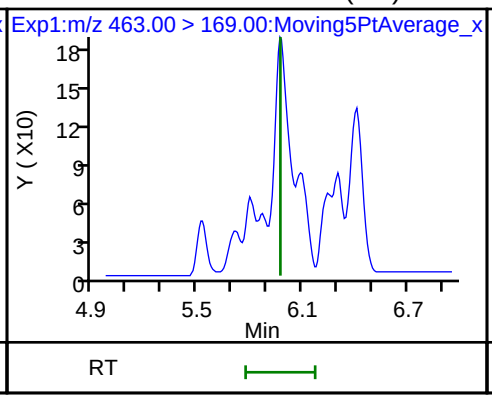
D 58 13C8 PFOS



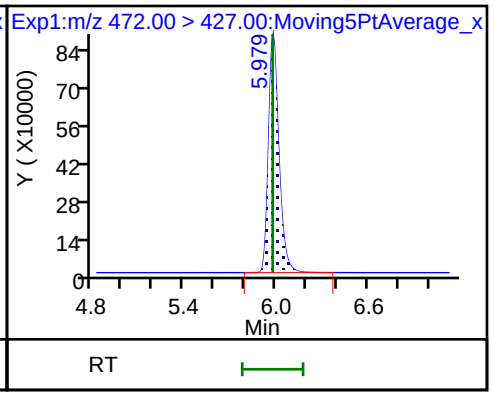
61 Perfluorononanoic acid (ND)



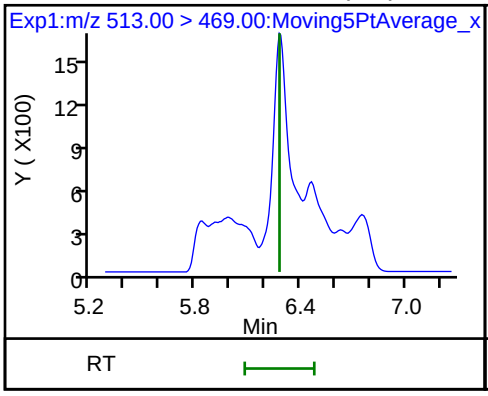
61 Perfluorononanoic acid (ND)



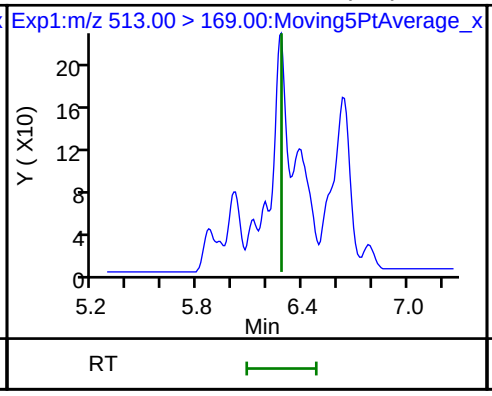
D 60 13C9 PFNA



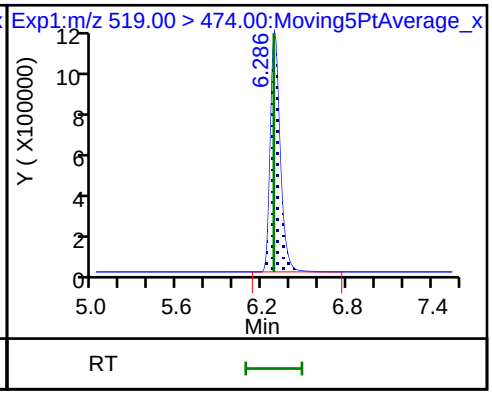
69 Perfluorodecanoic acid (ND)



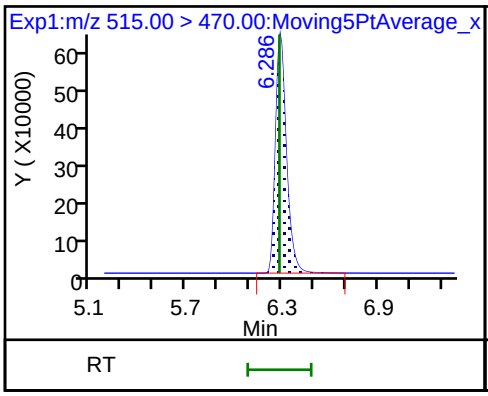
69 Perfluorodecanoic acid (ND)



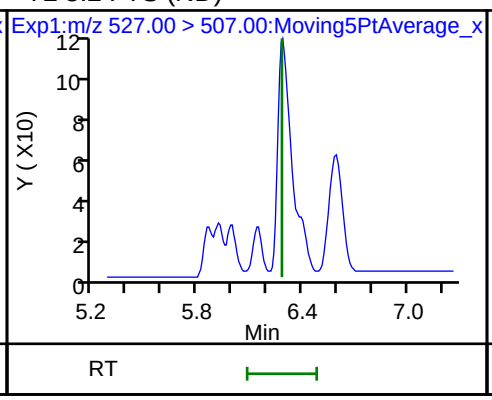
D 71 13C6 PFDA



* 70 13C2 PFDA



72 8:2 FTS (ND)



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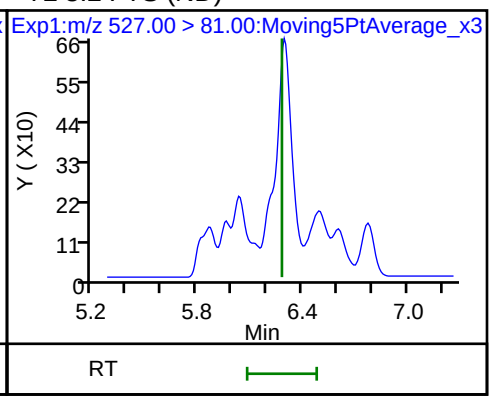
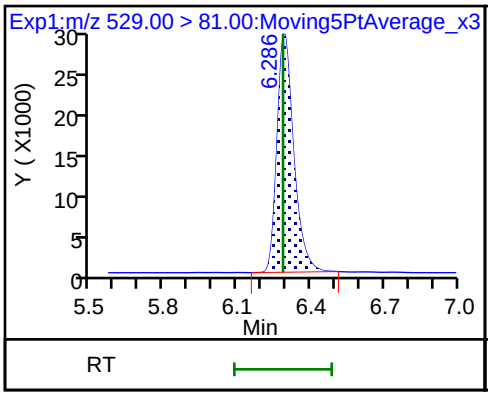
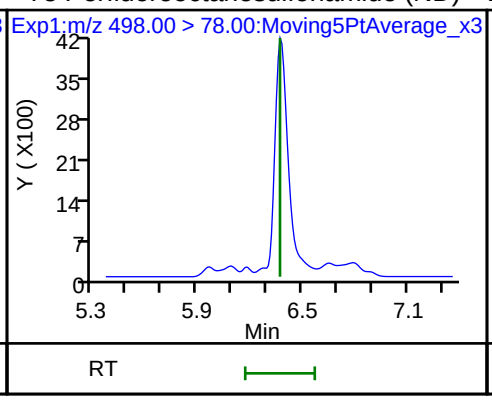


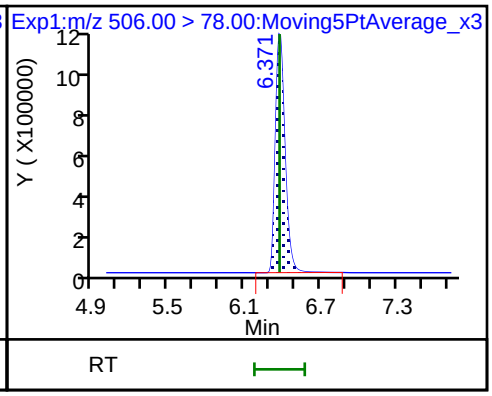
D 73 M2-8:2 FTS



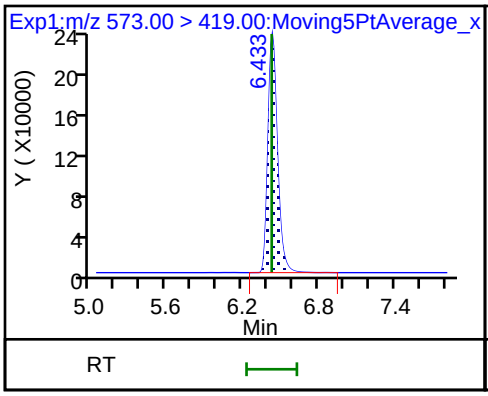
75 Perfluorooctanesulfonamide (ND)



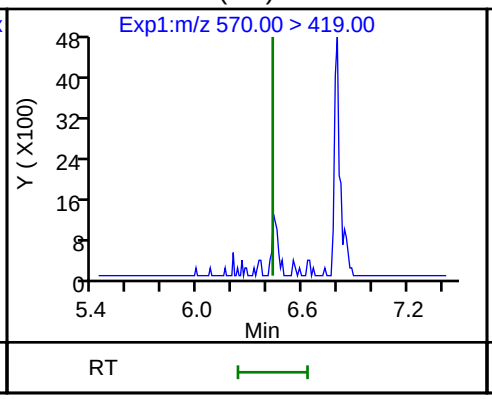
D 74 13C8 FOSA



D 77 d3-NMeFOSAA



76 NMeFOSAA (ND)



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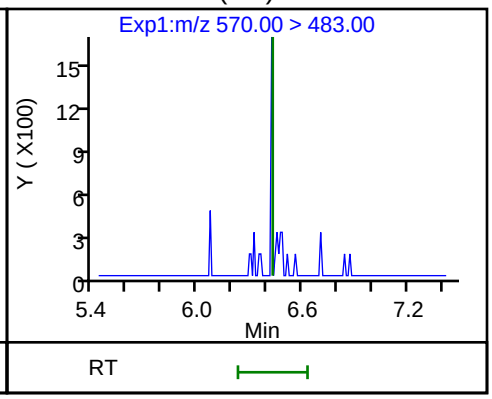
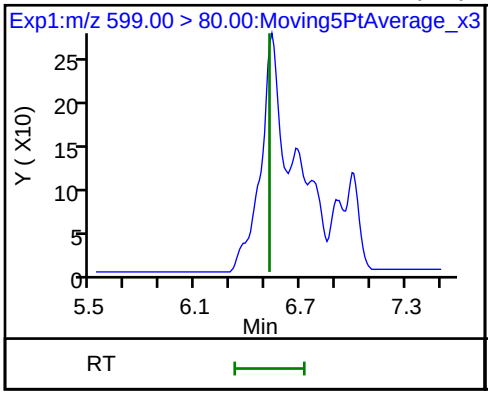
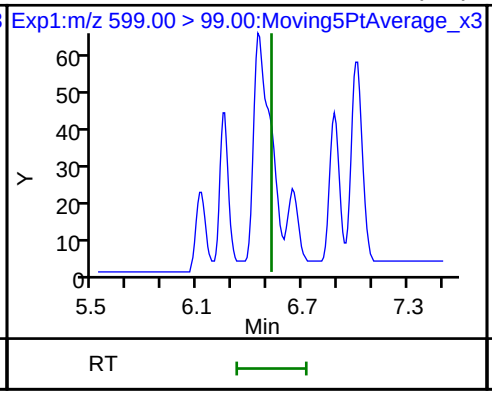


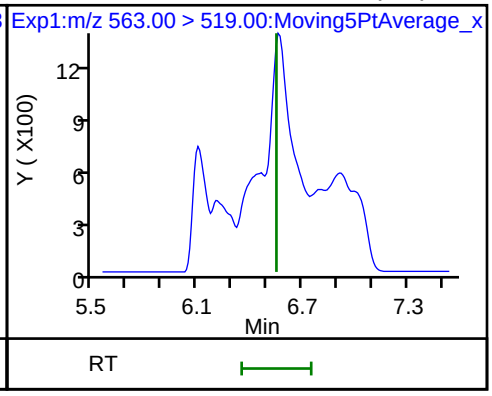
78 Perfluorodecanesulfonic acid (ND)



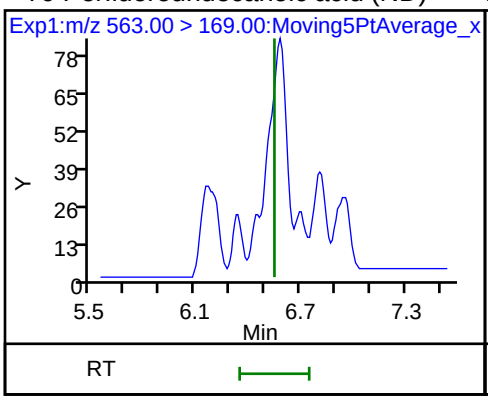
78 Perfluorodecanesulfonic acid (ND)



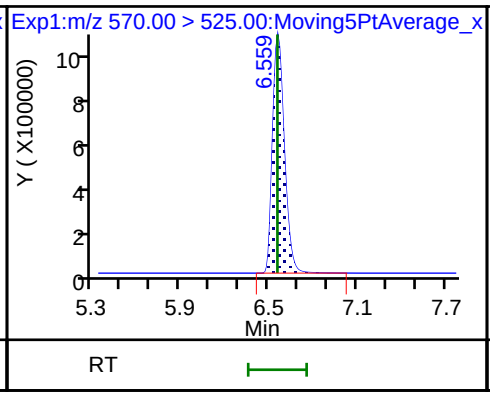
79 Perfluoroundecanoic acid (ND)



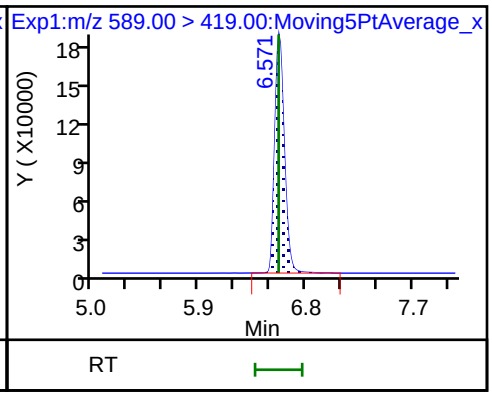
79 Perfluoroundecanoic acid (ND)



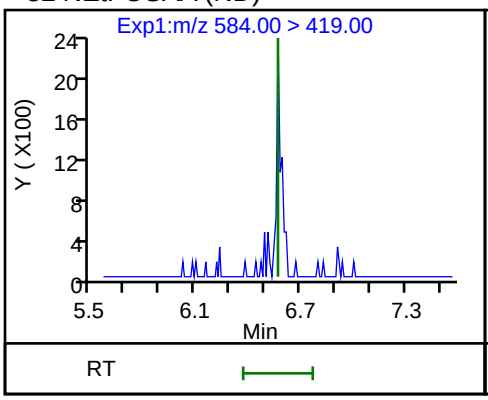
D 80 13C7 PFUnA



D 81 d5-NEtFOSAA



82 NEtFOSAA (ND)



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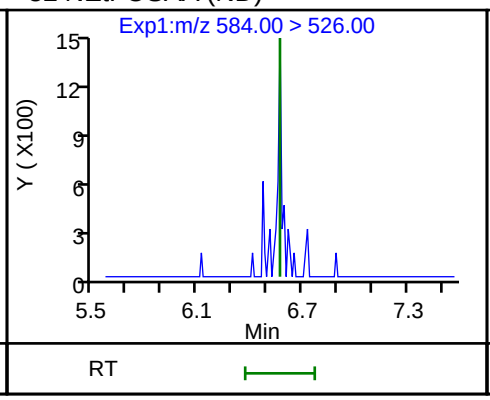
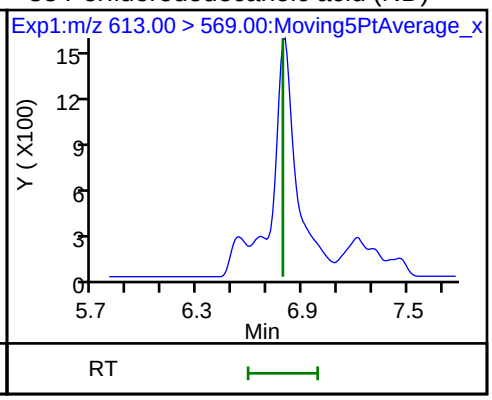
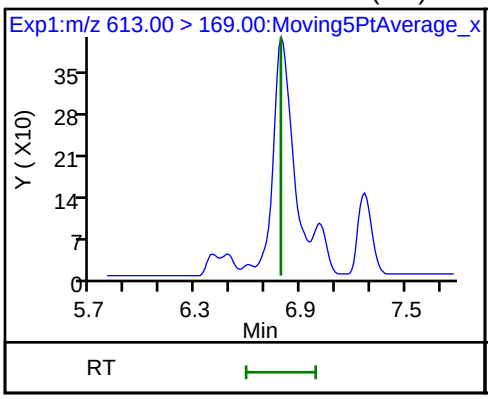


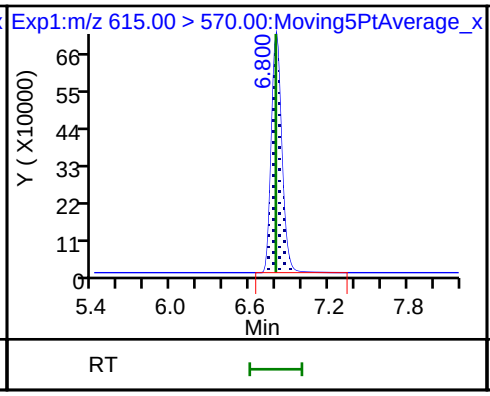
88 Perfluorododecanoic acid (ND)



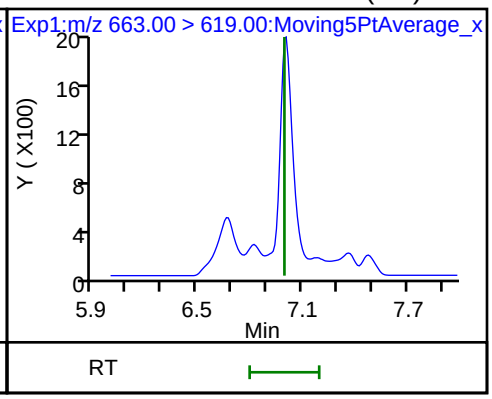
88 Perfluorododecanoic acid (ND)



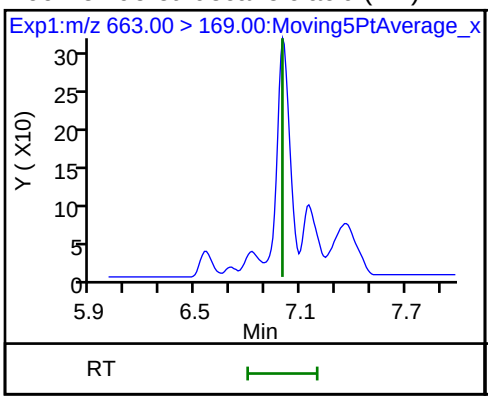
D 89 13C2-PFDoDA



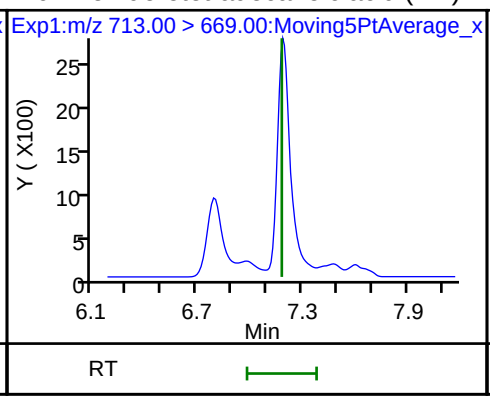
99 Perfluorotridecanoic acid (ND)



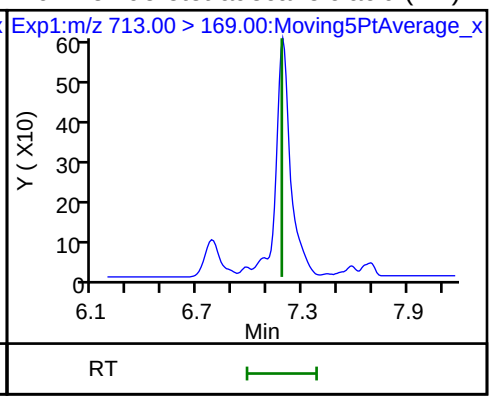
99 Perfluorotridecanoic acid (ND)



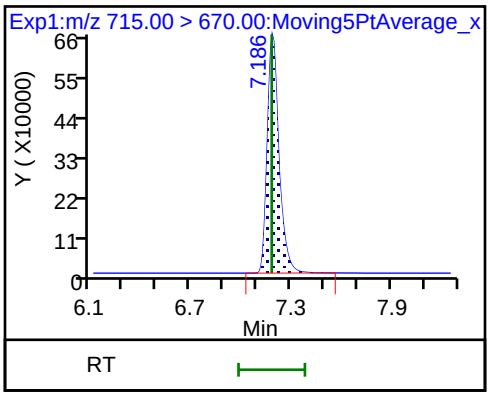
101 Perfluorotetradecanoic acid (ND)



101 Perfluorotetradecanoic acid (ND)



D 102 13C2 PFTeDA



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

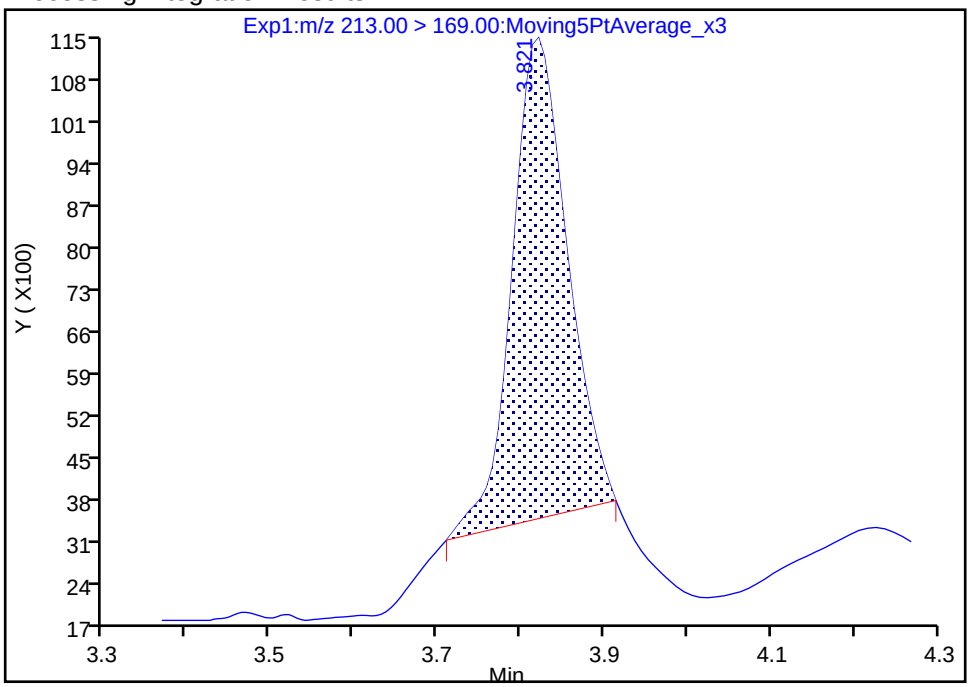
Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-18.d				
Injection Date:	02-Mar-2022 11:33:26	Instrument ID:	30728		
Lims ID:	410-73309-A-2-D	Lab Sample ID:	410-73309-2		
Client ID:	Import-2-20220216				
Operator ID:	US19_USR_INS20261	ALS Bottle#:	8	Worklist Smp#:	10
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

7 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

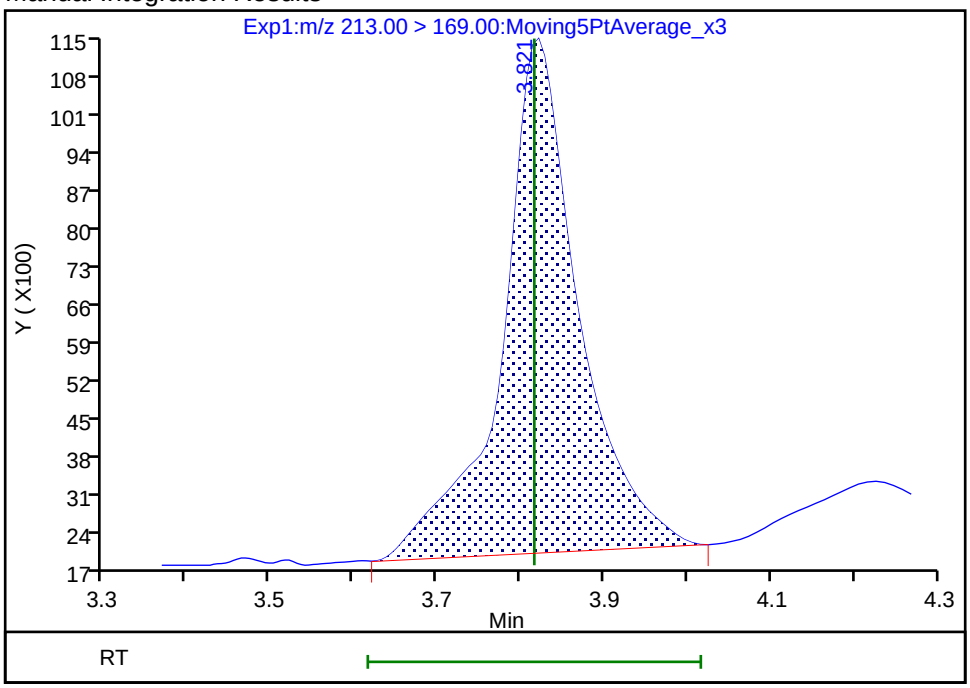
Processing Integration Results

RT: 3.82
Area: 37056
Amount: 0.084537
Amount Units: ng/ml



Manual Integration Results

RT: 3.82
Area: 61250
Amount: 0.139732
Amount Units: ng/ml



Reviewer: glicka, 02-Mar-2022 12:12:00
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID: DUP-20220216
Lab Sample ID: 410-73309-3
Matrix: Solid
Lab File ID: 22MAR02-19.d
Analysis Method: 537 IDA
Date Collected: 02/16/2022 00:00
Extraction Method: SHAKE
Date Extracted: 03/01/2022 07:26
Sample wt/vol: 10.04(g)
Date Analyzed: 03/02/2022 11:44
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 4(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture: 3.4
GPC Cleanup:(Y/N) N
Analysis Batch No.: 229099
Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	ND		0.062	0.021
375-85-9	Perfluoroheptanoic acid	ND		0.062	0.021
335-67-1	Perfluorooctanoic acid	ND		0.062	0.021
375-95-1	Perfluorononanoic acid	ND		0.062	0.021
335-76-2	Perfluorodecanoic acid	ND		0.062	0.021
72629-94-8	Perfluorotridecanoic acid	ND		0.062	0.021
376-06-7	Perfluorotetradecanoic acid	ND		0.062	0.021
375-73-5	Perfluorobutanesulfonic acid	ND		0.21	0.041
355-46-4	Perfluorohexanesulfonic acid	ND		0.062	0.021
1763-23-1	Perfluorooctanesulfonic acid	ND		0.062	0.021
2991-50-6	NEtFOSAA	ND		0.21	0.021
2355-31-9	NMeFOSAA	ND		0.21	0.021
375-92-8	Perfluoroheptanesulfonic acid	ND		0.062	0.021
335-77-3	Perfluorodecanesulfonic acid	ND		0.062	0.021
754-91-6	Perfluorooctanesulfonamide	ND		0.062	0.021
375-22-4	Perfluorobutanoic acid	ND		0.21	0.083
2058-94-8	Perfluoroundecanoic acid	ND		0.062	0.021
307-55-1	Perfluorododecanoic acid	ND		0.062	0.021
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.21	0.062
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.31	0.062
2706-90-3	Perfluoropentanoic acid	ND		0.062	0.021

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: DUP-20220216 Lab Sample ID: 410-73309-3

Matrix: Solid Lab File ID: 22MAR02-19.d

Analysis Method: 537 IDA Date Collected: 02/16/2022 00:00

Extraction Method: SHAKE Date Extracted: 03/01/2022 07:26

Sample wt/vol: 10.04(g) Date Analyzed: 03/02/2022 11:44

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 4(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 3.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 229099 Units: ng/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	97		15-200
STL02279	M2-6:2 FTS	110		10-200
STL02577	13C5 PFHxA	97		10-174
STL01892	13C4 PFHpA	101		10-178
STL01052	13C8 PFOA	101		26-159
STL02578	13C9 PFNA	91		26-165
STL02579	13C6 PFDA	93		26-161
STL02580	13C7 PFUnA	90		12-173
STL02703	13C2-PFDoDA	93		11-166
STL02116	13C2 PFTeDA	88		10-169
STL02337	13C3 PFBS	97		27-179
STL02581	13C3 PFHxS	100		24-171
STL01054	13C8 PFOS	93		41-154
STL02118	d3-NMeFOSAA	72		10-178
STL02117	d5-NEtFOSAA	82		10-193
STL01056	13C8 FOSA	82		14-163
STL00992	13C4 PFBA	91		28-153
STL01893	13C5 PFPeA	92		24-161

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-19.d
Lims ID: 410-73309-A-3-D
Client ID: DUP-20220216
Sample Type: Client
Inject. Date: 02-Mar-2022 11:44:34 ALS Bottle#: 9 Worklist Smp#: 11
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: 410-73309-A-3-D
Misc. Info.: Plate: 1 Rack: 1 410-0051478-011
Operator ID: US19_USR_INS20261 Instrument ID: 30728

Method: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 10:20:58 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617

First Level Reviewer: glicka Date: 02-Mar-2022 12:13:10
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 6 13C4 PFBA										
217.00 > 172.00	3.815	3.816	-0.001	1.000	5236927	9.06		90.6	103399	
7 Perfluorobutanoic acid										M
213.00 > 169.00	3.815	3.816	-0.001	1.000	56896	0.1262			136	M
* 8 13C3-PFBA										
216.00 > 172.00	3.815	3.817	-0.002		2674130	5.00			8766	
16 Perfluoropentanoic acid										
263.00 > 219.00		4.404				ND				
D 17 13C5 PFPeA										
268.00 > 223.00	4.407	4.404	0.003	1.155	4307984	9.20		92.0	101336	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00		4.460				0				
299.00 > 99.00		4.460								
D 19 13C3 PFBS										
302.00 > 80.00	4.464	4.462	0.002	1.170	4254342	8.99		96.6	222240	
26 Perfluorohexanoic acid										
313.00 > 269.00		4.843				ND				
313.00 > 119.00		4.843								
D 27 13C5 PFHxA										
318.00 > 273.00	4.849	4.846	0.003	0.860	5957180	9.73		97.3	233686	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00		5.254				ND				
399.00 > 99.00		5.254								
36 Perfluoroheptanoic acid										
363.00 > 319.00		5.254				ND				
363.00 > 169.00		5.254								
D 37 13C3 PFHxS										
402.00 > 80.00	5.256	5.254	0.002	0.932	4132246	9.49		100	257543	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 38 13C4 PFHpA										
367.00 > 322.00	5.256	5.255	0.001	0.932	6690194	10.1		101	207225	
50 6:2 FTS										
427.00 > 407.00		5.613				ND				
427.00 > 81.00		5.613								
D 52 M2-6:2 FTS										
429.00 > 81.00	5.619	5.614	0.005	0.997	279326	10.5		110	18850	
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00		5.618				ND				
449.00 > 99.00		5.618								
53 Perfluorooctanoic acid										
413.00 > 369.00		5.630				ND				
413.00 > 169.00		5.630								
D 54 13C8 PFOA										
421.00 > 376.00	5.638	5.631	0.007	1.000	6537627	10.1		101	262795	
* 55 13C2 PFOA										
415.00 > 370.00	5.638	5.631	0.007		2639469	5.00			176865	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00		5.954				ND				
499.00 > 99.00		5.954								
* 59 13C4 PFOS										
503.00 > 80.00	5.962	5.955	0.007		2385389	4.78			125776	
D 58 13C8 PFOS										
507.00 > 80.00	5.962	5.955	0.007	1.000	4280641	8.86		92.7	81968	
61 Perfluorononanoic acid										
463.00 > 419.00		5.973				ND				
463.00 > 169.00		5.973								
D 60 13C9 PFNA										
472.00 > 427.00	5.979	5.975	0.004	1.003	4300959	9.09		90.9	226812	
69 Perfluorodecanoic acid										
513.00 > 469.00		6.279				ND				
513.00 > 169.00		6.279								
D 71 13C6 PFDA										
519.00 > 474.00	6.286	6.282	0.004	1.000	5479197	9.34		93.4	291843	
* 70 13C2 PFDA										
515.00 > 470.00	6.286	6.282	0.004		3074527	5.00			162123	
72 8:2 FTS										
527.00 > 507.00		6.282				0				
527.00 > 81.00		6.282								
D 73 M2-8:2 FTS										
529.00 > 81.00	6.286	6.285	0.001	1.000	141017	9.26		96.7	10100	
75 Perfluorooctanesulfonamide										
498.00 > 78.00		6.371				0				
D 74 13C8 FOSA										
506.00 > 78.00	6.370	6.375	-0.005	1.013	6199975	8.19		81.9	299846	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.432	6.428	0.004	1.023	1180887	7.16		71.6	57440	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
76 NMeFOSAA										
570.00 > 419.00		6.429				ND				
570.00 > 483.00		6.429								
78 Perfluorodecanesulfonic acid										
599.00 > 80.00		6.522				ND				
599.00 > 99.00		6.522								
79 Perfluoroundecanoic acid										
563.00 > 519.00		6.550				0				
563.00 > 169.00		6.550								
D 80 13C7 PFUnA										
570.00 > 525.00	6.558	6.557	0.001	1.043	5618951	9.04		90.4	143758	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.570	6.569	0.001	1.045	967893	8.22		82.2	34377	
82 NEtFOSAA										
584.00 > 419.00		6.570				ND				
584.00 > 526.00		6.570								
88 Perfluorododecanoic acid										
613.00 > 569.00		6.787				ND				
613.00 > 169.00		6.787								
D 89 13C2-PFDoDA										
615.00 > 570.00	6.800	6.796	0.004	1.082	4424496	9.35		93.5	270504	
99 Perfluorotridecanoic acid										
663.00 > 619.00		6.996				ND				
663.00 > 169.00		6.996								
101 Perfluorotetradecanoic acid										
713.00 > 669.00		7.181				ND				
713.00 > 169.00		7.181								
D 102 13C2 PFTeDA										
715.00 > 670.00	7.187	7.184	0.003	1.143	3351352	8.80		88.0	115326	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

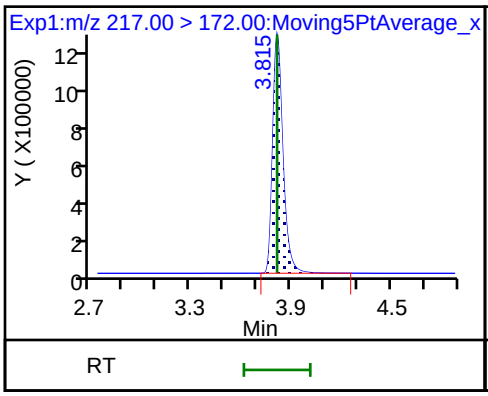
PFC_IS_MOD_00279 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Mar-2022 12:25:49 Chrom Revision: 2.3 16-Feb-2022 17:52:00

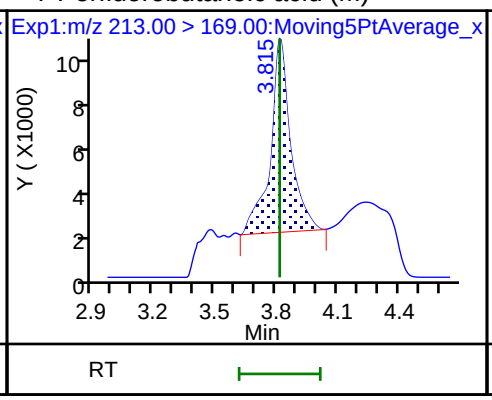
Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-19.d				
Injection Date:	02-Mar-2022 11:44:34	Instrument ID:	30728		
Lims ID:	410-73309-A-3-D	Lab Sample ID:	410-73309-3		
Client ID:	DUP-20220216				
Operator ID:	US19_USR_INS20261	ALS Bottle#:	9	Worklist Smp#:	11
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		

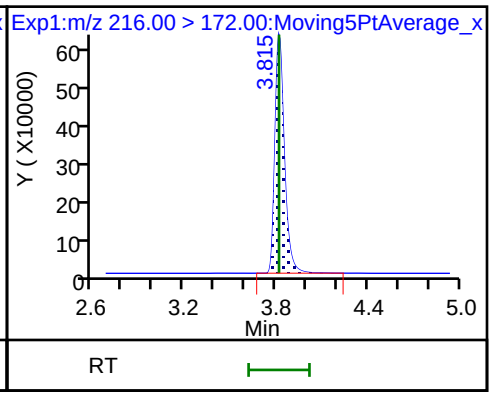
D 6 13C4 PFBA



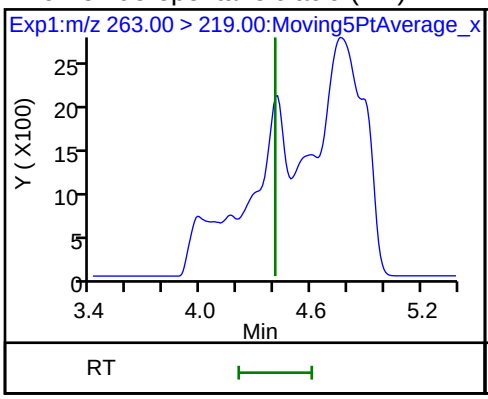
7 Perfluorobutanoic acid (M)



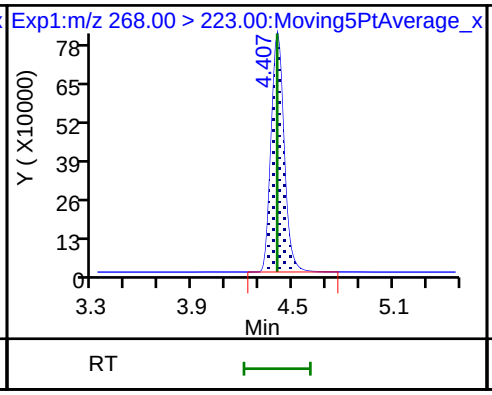
* 8 13C3-PFBA



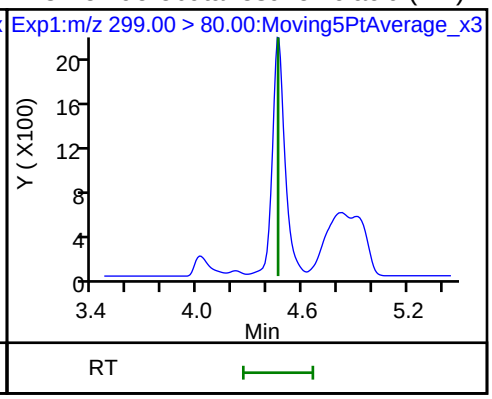
16 Perfluoropentanoic acid (ND)



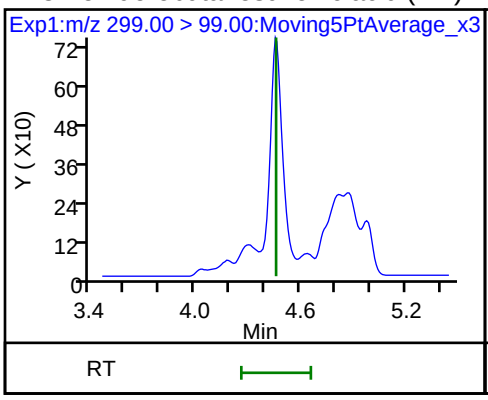
D 17 13C5 PFPeA



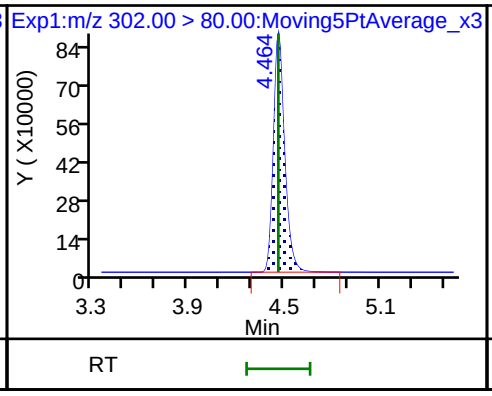
18 Perfluorobutanesulfonic acid (ND)



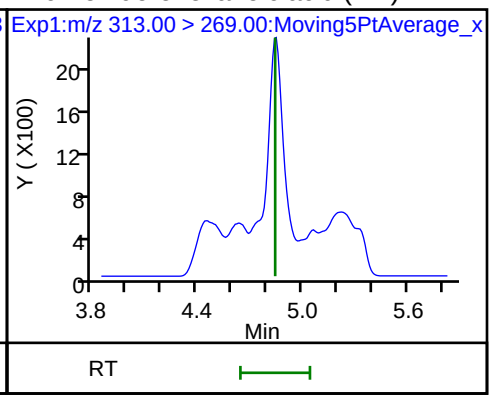
18 Perfluorobutanesulfonic acid (ND)



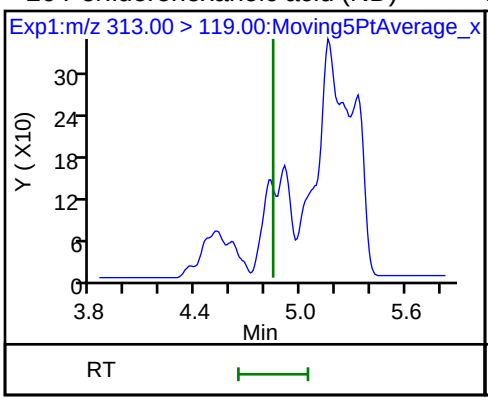
D 19 13C3 PFBS



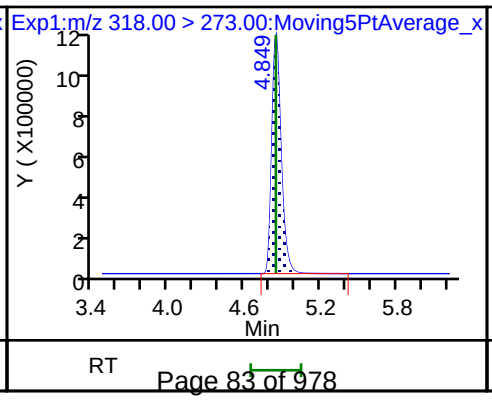
26 Perfluorohexanoic acid (ND)



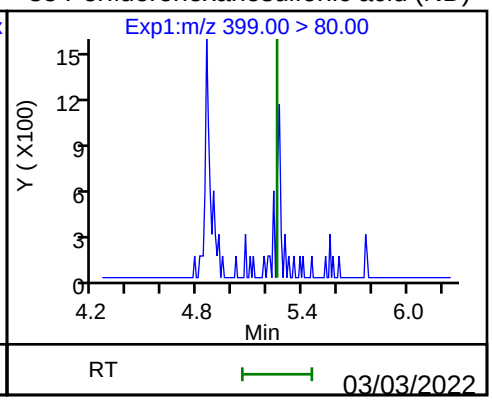
26 Perfluorohexanoic acid (ND)



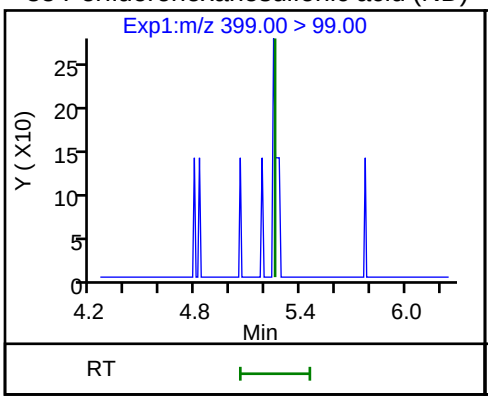
D 27 13C5 PFHxA



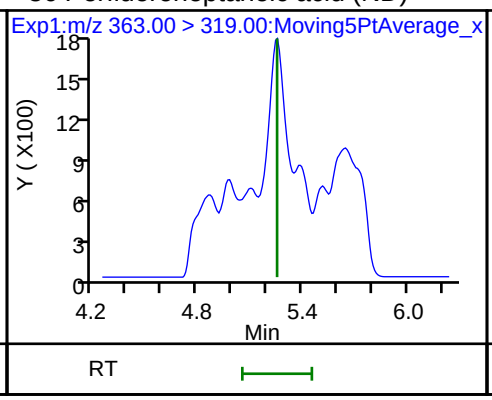
35 Perfluorohexanesulfonic acid (ND)



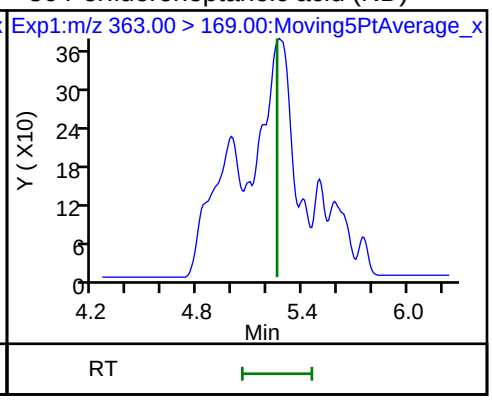
35 Perfluorohexanesulfonic acid (ND)



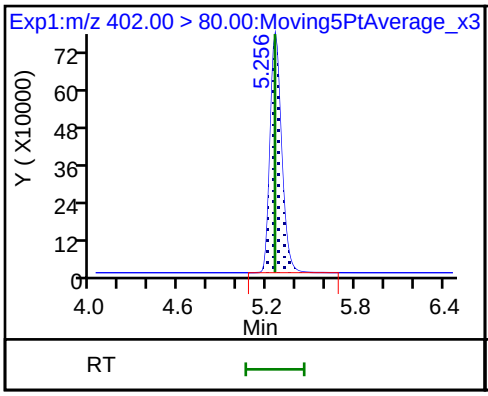
36 Perfluoroheptanoic acid (ND)



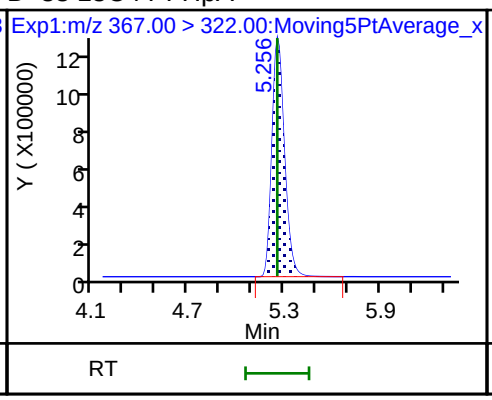
36 Perfluoroheptanoic acid (ND)



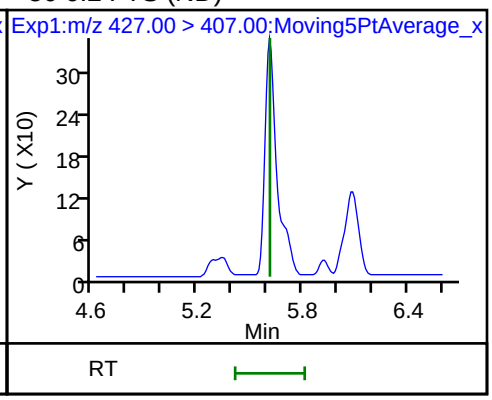
D 37 13C3 PFHxS



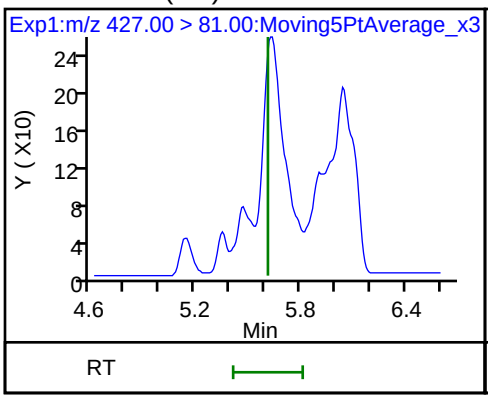
D 38 13C4 PFHpA



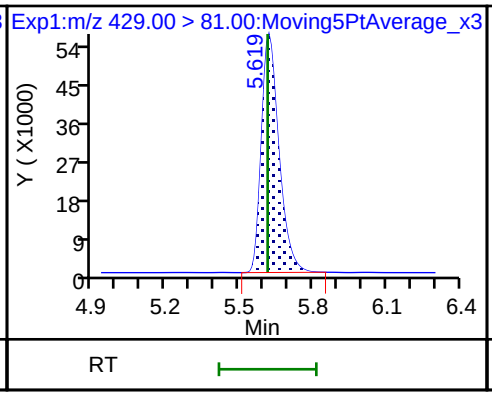
50 6:2 FTS (ND)



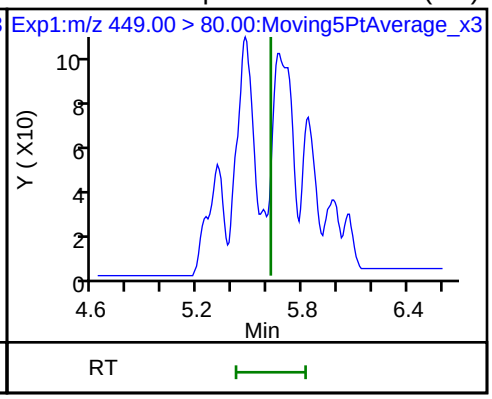
50 6:2 FTS (ND)



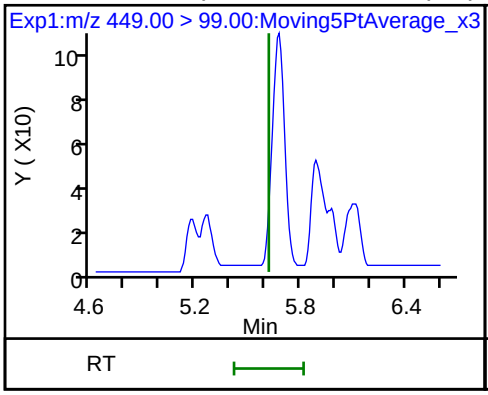
D 52 M2-6:2 FTS



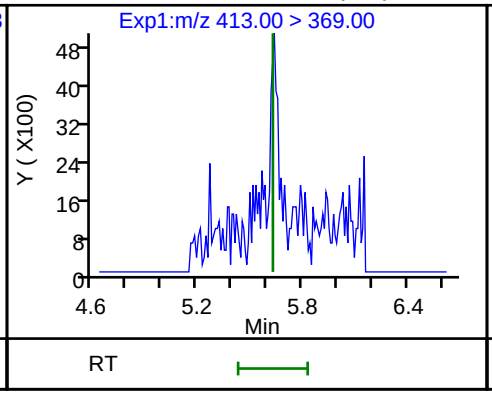
51 Perfluoroheptanesulfonic acid (ND)



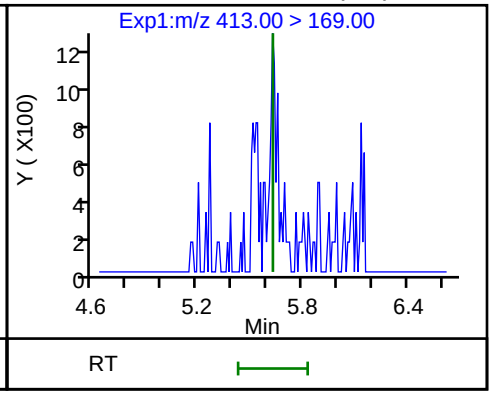
51 Perfluoroheptanesulfonic acid (ND)



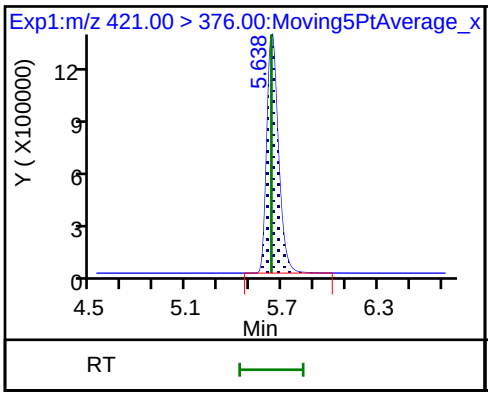
53 Perfluorooctanoic acid (ND)



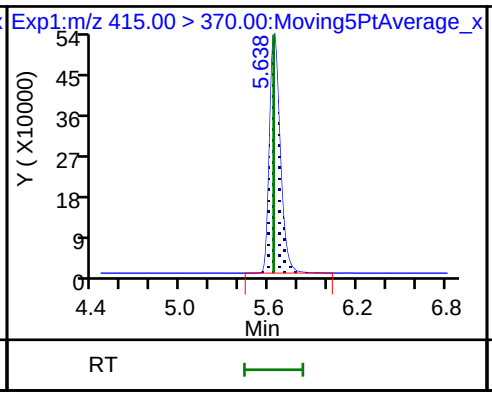
53 Perfluorooctanoic acid (ND)



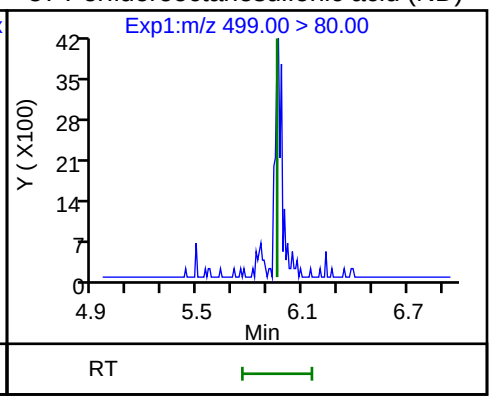
D 54 13C8 PFOA



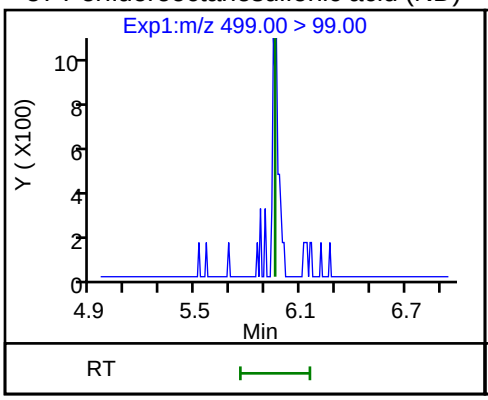
* 55 13C2 PFOA



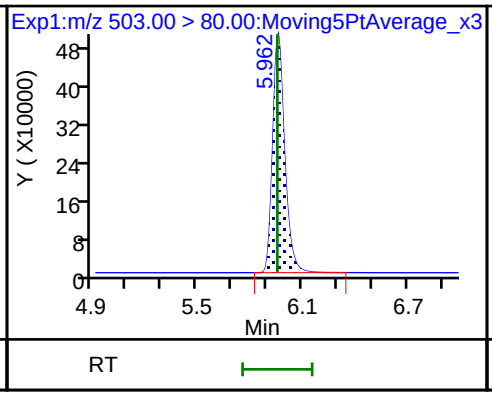
57 Perfluorooctanesulfonic acid (ND)



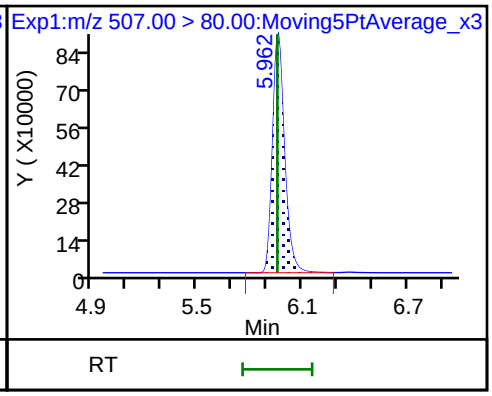
57 Perfluorooctanesulfonic acid (ND)



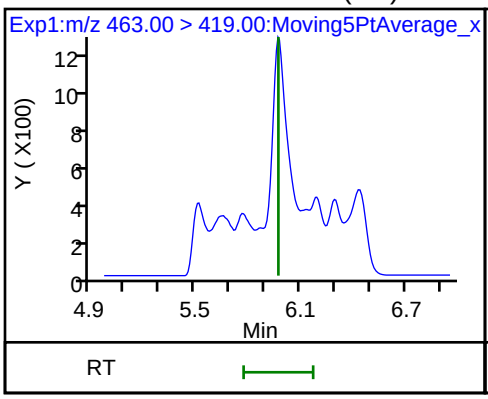
* 59 13C4 PFOS



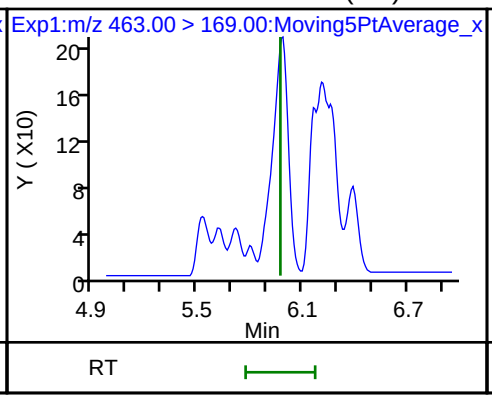
D 58 13C8 PFOS



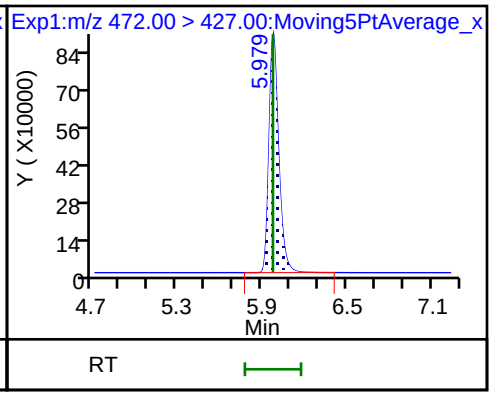
61 Perfluorononanoic acid (ND)



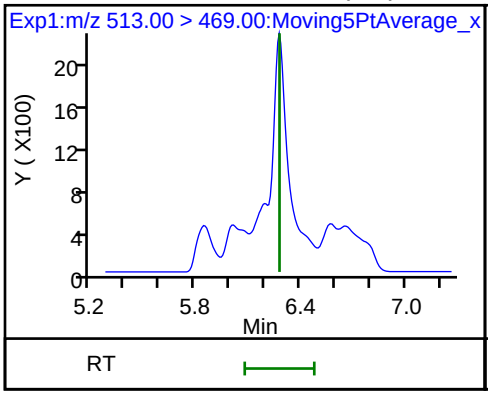
61 Perfluorononanoic acid (ND)



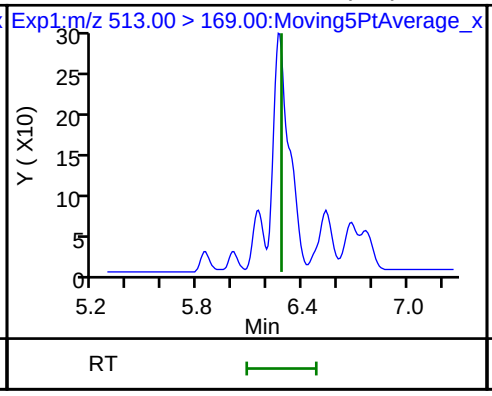
D 60 13C9 PFNA



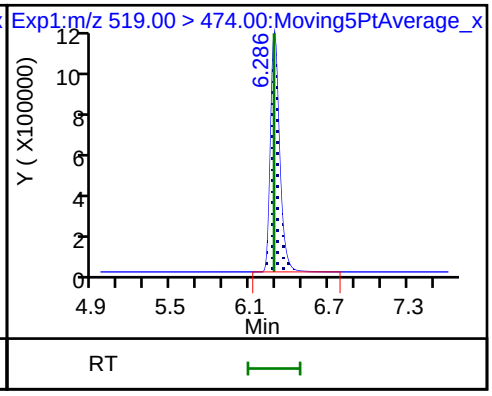
69 Perfluorodecanoic acid (ND)



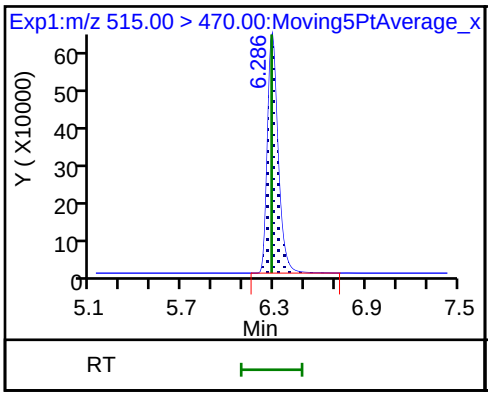
69 Perfluorodecanoic acid (ND)



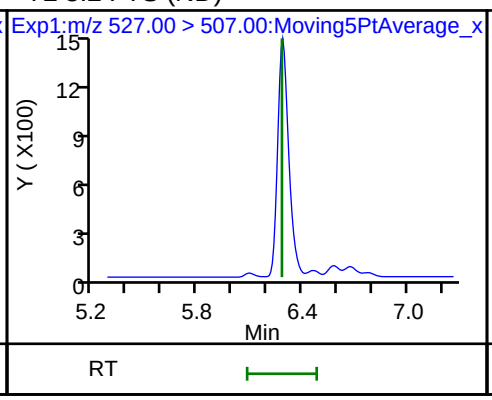
D 71 13C6 PFDA



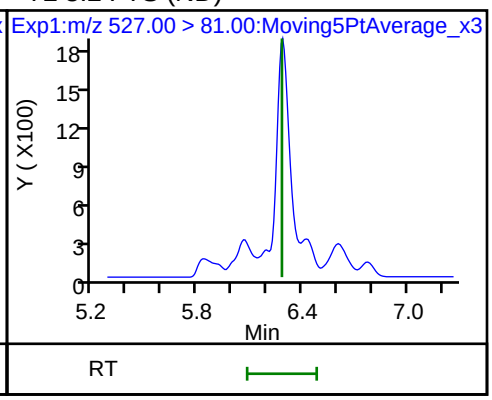
* 70 13C2 PFDA



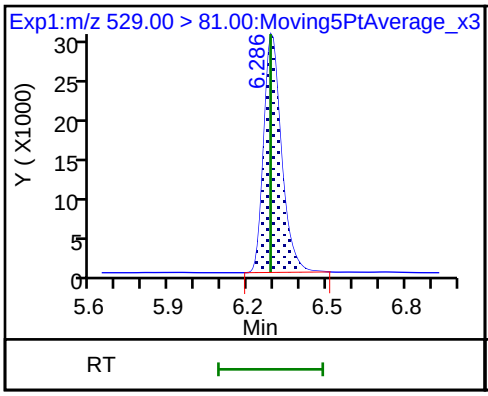
72 8:2 FTS (ND)



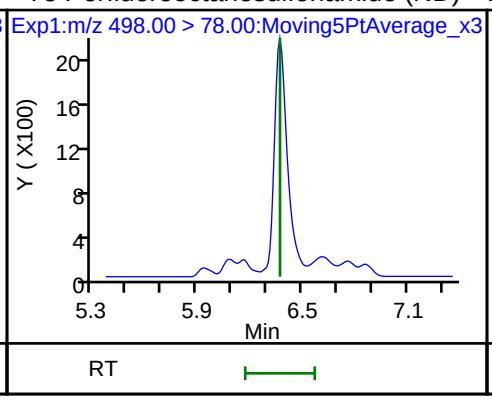
72 8:2 FTS (ND)



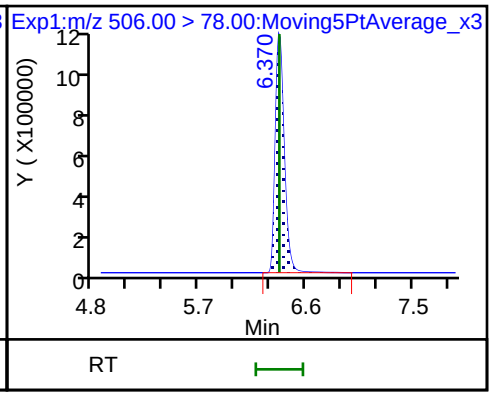
D 73 M2-8:2 FTS



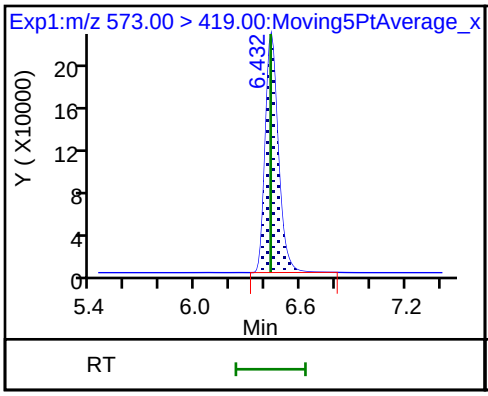
75 Perfluorooctanesulfonamide (ND)



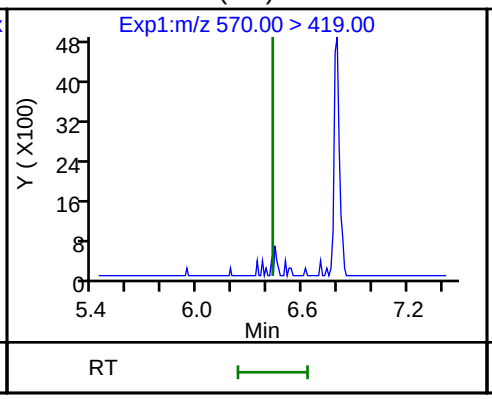
D 74 13C8 FOSA



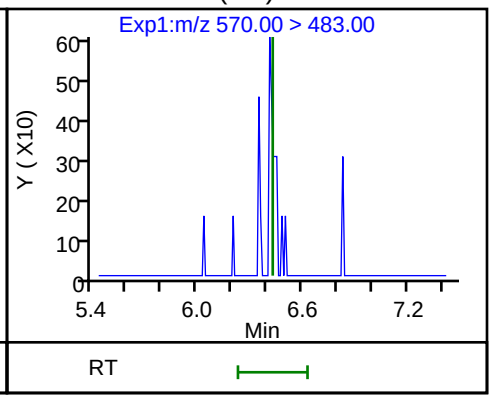
D 77 d3-NMeFOSAA



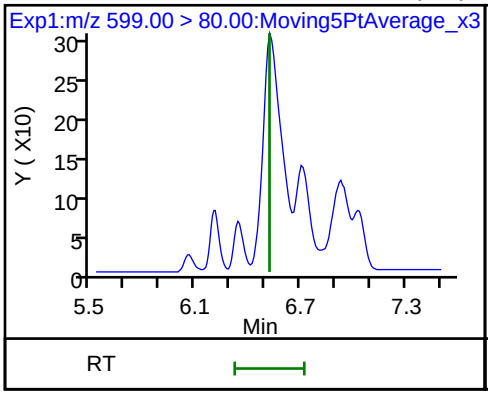
76 NMeFOSAA (ND)



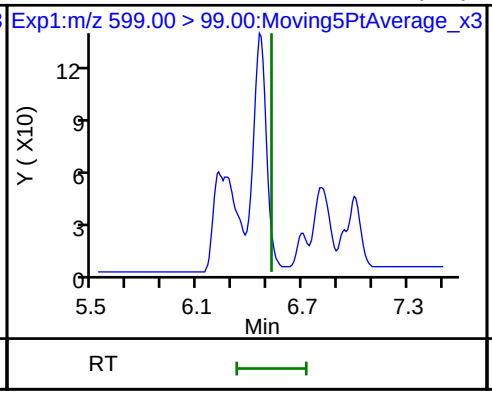
76 NMeFOSAA (ND)



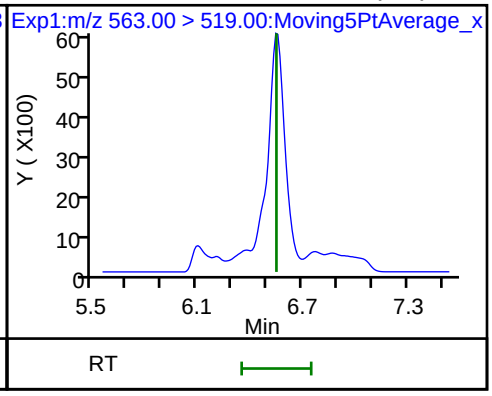
78 Perfluorodecanesulfonic acid (ND)



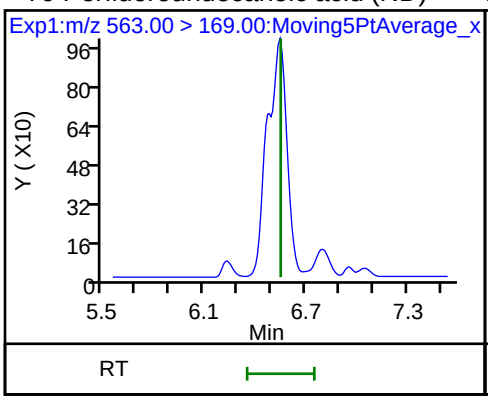
78 Perfluorodecanesulfonic acid (ND)



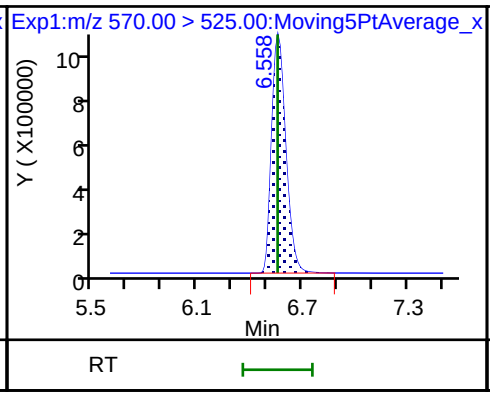
79 Perfluoroundecanoic acid (ND)



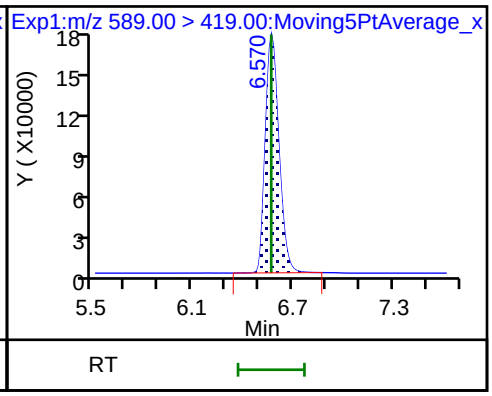
79 Perfluoroundecanoic acid (ND)



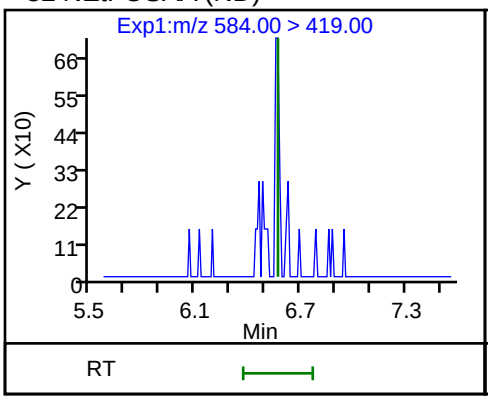
D 80 13C7 PFUnA



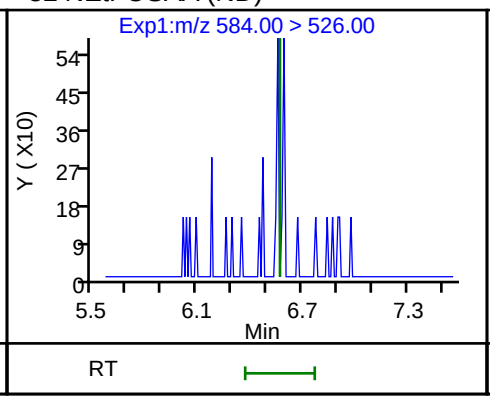
D 81 d5-NEtFOSAA



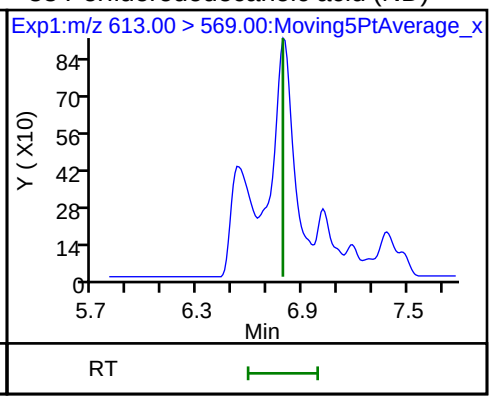
82 NEtFOSAA (ND)



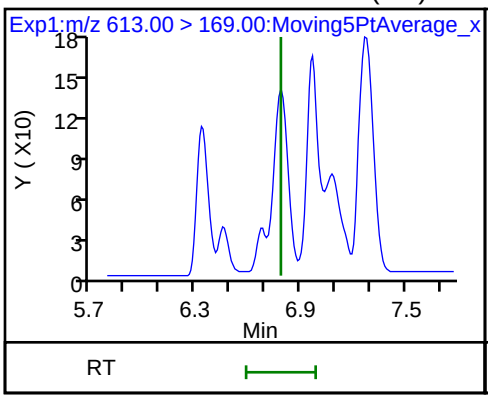
82 NEtFOSAA (ND)



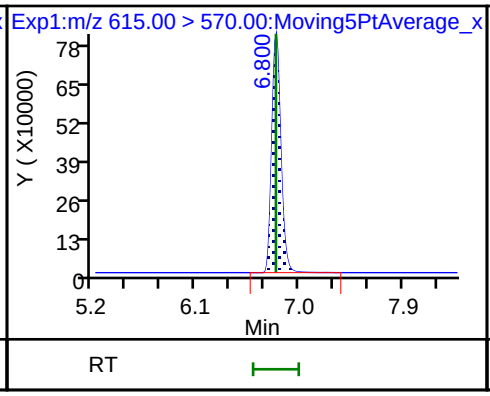
88 Perfluorododecanoic acid (ND)



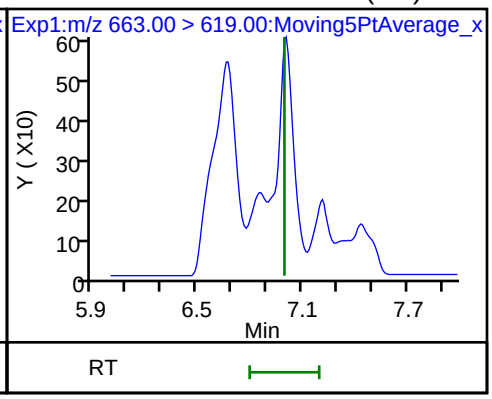
88 Perfluorododecanoic acid (ND)



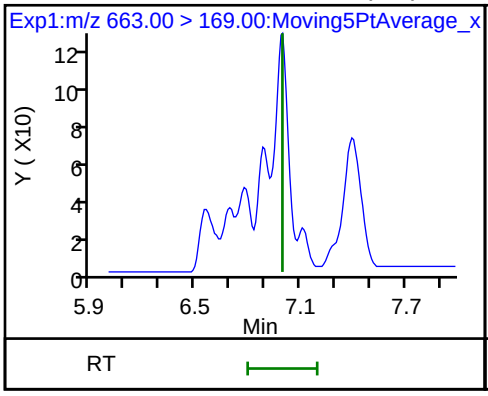
D 89 13C2-PFDoDA



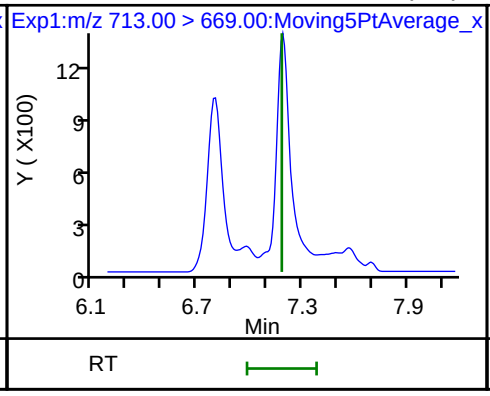
99 Perfluorotridecanoic acid (ND)



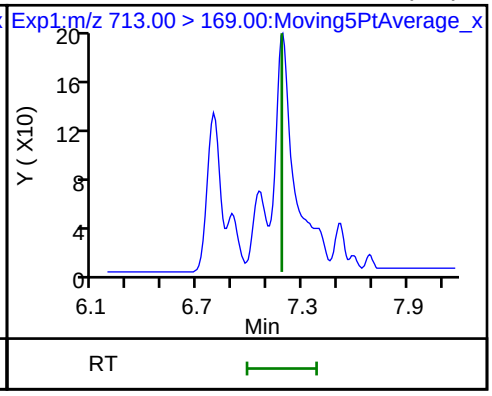
99 Perfluorotridecanoic acid (ND)



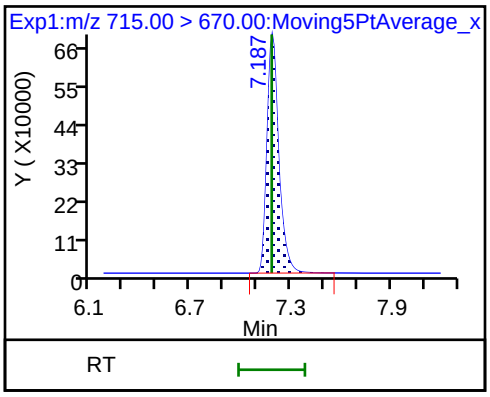
101 Perfluorotetradecanoic acid (ND)



101 Perfluorotetradecanoic acid (ND)



D 102 13C2 PFTeDA



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

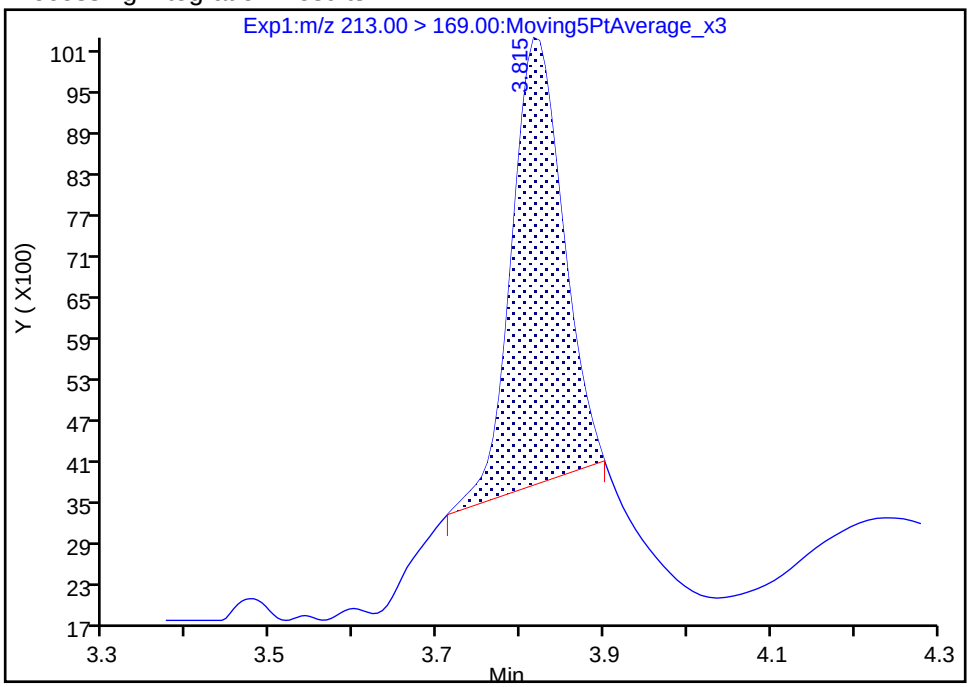
Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-19.d				
Injection Date:	02-Mar-2022 11:44:34	Instrument ID:	30728		
Lims ID:	410-73309-A-3-D	Lab Sample ID:	410-73309-3		
Client ID:	DUP-20220216				
Operator ID:	US19_USR_INS20261	ALS Bottle#:	9	Worklist Smp#:	11
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

7 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

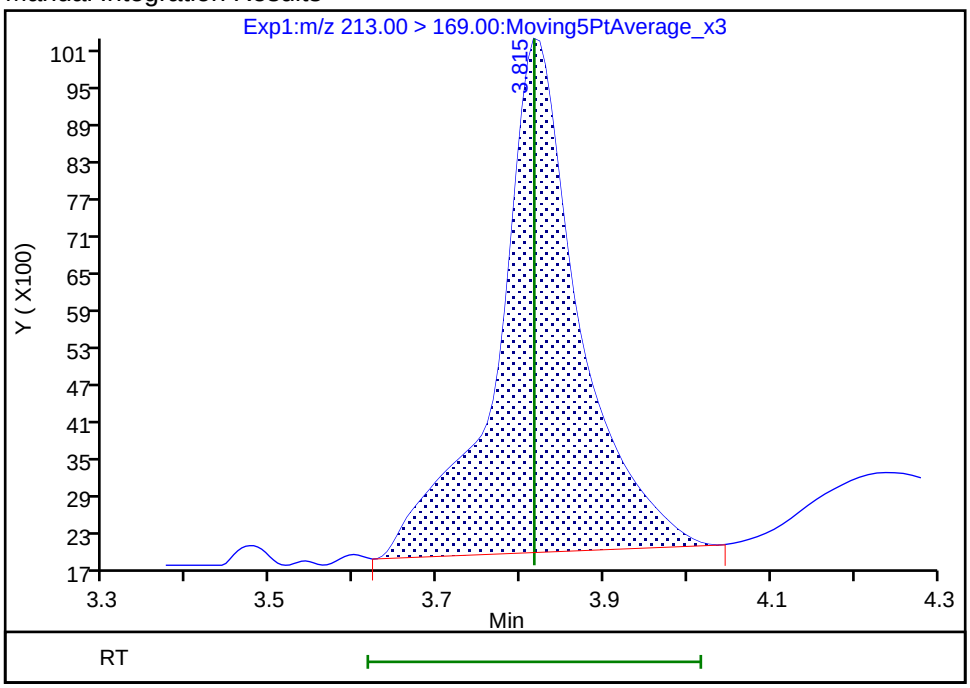
Processing Integration Results

RT: 3.82
Area: 28032
Amount: 0.062173
Amount Units: ng/ml



Manual Integration Results

RT: 3.82
Area: 56896
Amount: 0.126190
Amount Units: ng/ml



Reviewer: glicka, 02-Mar-2022 12:12:49

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: FB-20220216 Lab Sample ID: 410-73309-4

Matrix: Water Lab File ID: 22FEB22-65.d

Analysis Method: 537 IDA Date Collected: 02/16/2022 12:35

Extraction Method: 537 IDA Date Extracted: 02/22/2022 07:11

Sample wt/vol: 253.1(mL) Date Analyzed: 02/23/2022 09:35

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

Injection Volume: 5(uL) GC Column: Gemini C18 50mm ID: 3(mm)

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

Analysis Batch No.: 226634 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	ND	cn	2.0	0.49
375-85-9	Perfluoroheptanoic acid	ND	cn	2.0	0.49
335-67-1	Perfluorooctanoic acid	ND	cn	2.0	0.49
375-95-1	Perfluorononanoic acid	ND	cn	2.0	0.49
335-76-2	Perfluorodecanoic acid	ND	cn	2.0	0.49
72629-94-8	Perfluorotridecanoic acid	ND	cn	2.0	0.49
376-06-7	Perfluorotetradecanoic acid	ND	cn	2.0	0.49
375-73-5	Perfluorobutanesulfonic acid	ND	cn	2.0	0.49
355-46-4	Perfluorohexanesulfonic acid	ND	cn	2.0	0.49
1763-23-1	Perfluorooctanesulfonic acid	ND	cn	2.0	0.49
2991-50-6	NEtFOSAA	ND	cn	3.0	0.49
2355-31-9	NMeFOSAA	ND	cn	2.0	0.59
375-92-8	Perfluoroheptanesulfonic acid	ND	cn	2.0	0.49
335-77-3	Perfluorodecanesulfonic acid	ND	cn	2.0	0.49
754-91-6	Perfluorooctanesulfonamide	ND	cn	2.0	0.49
375-22-4	Perfluorobutanoic acid	ND	cn	4.9	2.0
2058-94-8	Perfluoroundecanoic acid	ND	cn	2.0	0.49
307-55-1	Perfluorododecanoic acid	ND	cn	2.0	0.49
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND	cn	4.9	2.0
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND	cn	3.0	0.99
2706-90-3	Perfluoropentanoic acid	ND	cn	2.0	0.49

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: FB-20220216 Lab Sample ID: 410-73309-4

Matrix: Water Lab File ID: 22FEB22-65.d

Analysis Method: 537 IDA Date Collected: 02/16/2022 12:35

Extraction Method: 537 IDA Date Extracted: 02/22/2022 07:11

Sample wt/vol: 253.1(mL) Date Analyzed: 02/23/2022 09:35

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

Injection Volume: 5(uL) GC Column: Gemini C18 50mm ID: 3(mm)

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

Analysis Batch No.: 226634 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	135	cn	33-200
STL02279	M2-6:2 FTS	150	cn	17-200
STL02577	13C5 PFHxA	160	cn	24-179
STL01892	13C4 PFHpA	165	cn	31-182
STL01052	13C8 PFOA	153	cn	48-162
STL02578	13C9 PFNA	156	cn	51-167
STL02579	13C6 PFDA	156	cn	49-163
STL02580	13C7 PFUnA	157	cn	34-174
STL02703	13C2-PFDoDA	146	cn	17-176
STL02116	13C2 PFTeDA	140	cn	10-179
STL02337	13C3 PFBS	147	cn	16-200
STL02581	13C3 PFHxS	161	cn	28-188
STL01054	13C8 PFOS	158	cn	51-159
STL02118	d3-NMeFOSAA	150	cn	31-174
STL02117	d5-NEtFOSAA	156	cn	29-195
STL01056	13C8 FOSA	129	cn	10-168
STL00992	13C4 PFBA	146	cn	42-165
STL01893	13C5 PFPeA	151	cn	38-187

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-65.d
Lims ID: 410-73309-A-4-B
Client ID: FB-20220216
Sample Type: Client
Inject. Date: 23-Feb-2022 09:35:41 ALS Bottle#: 53 Worklist Smp#: 61
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 410-73309-A-4-B
Misc. Info.: Plate: 3 Rack: 1 410-0050963-061
Operator ID: US19_USR_INS20260 Instrument ID: 30733

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 11:52:21 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1671

First Level Reviewer: kruelleh Date: 23-Feb-2022 11:44:45
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 3 13C4 PFBA										
217.00 > 172.00	3.979	3.972	0.007	0.998	1927170	14.6		146	111175	
2 Perfluorobutanoic acid										
213.00 > 169.00		3.972				ND				
* 4 13C3-PFBA										
216.00 > 172.00	3.987	3.972	0.015		591703	5.00			2323	
7 Perfluoropentanoic acid										
263.00 > 219.00		4.514				ND				
D 8 13C5 PFPeA										
268.00 > 223.00	4.531	4.524	0.007	1.136	1719762	15.1		151	129744	
D 11 13C3 PFBS										
302.00 > 80.00	4.588	4.572	0.016	1.151	1230950	13.7		147	96074	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00		4.572				ND				
299.00 > 99.00		4.572								
D 19 13C5 PFHxA										
318.00 > 273.00	4.948	4.940	0.008	0.868	2052172	16.0		160	110907	
17 Perfluorohexanoic acid										
313.00 > 269.00		4.940				ND				
313.00 > 119.00		4.940								
D 25 13C3 PFHxS										
402.00 > 80.00	5.346	5.326	0.020	0.937	1207377	15.2		161	87693	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00		5.326				ND				
399.00 > 99.00		5.326								
23 Perfluoroheptanoic acid										
363.00 > 319.00		5.326				ND				
363.00 > 169.00		5.326								

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 24 13C4 PFHpA										
367.00 > 322.00	5.346	5.337	0.009	0.937	2363005	16.5		165	172710	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.694	5.677	0.017	0.998	96842	14.2		150	7129	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00		5.677				ND				
449.00 > 99.00		5.677								
34 6:2 FTS										
427.00 > 407.00		5.677				ND				
427.00 > 81.00		5.677								
40 Perfluorooctanoic acid										
413.00 > 369.00		5.696				ND				
413.00 > 169.00		5.696								
D 37 13C8 PFOA										
421.00 > 376.00	5.703	5.696	0.007	1.000	2415042	15.3		153	106730	
* 38 13C2 PFOA										
415.00 > 370.00	5.703	5.696	0.007		593980	5.00			43672	
D 41 13C8 PFOS										
507.00 > 80.00	6.023	6.015	0.008	1.000	1145370	15.1		158	32640	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00		6.015				ND				
499.00 > 99.00		6.015								
* 42 13C4 PFOS										
503.00 > 80.00	6.023	6.015	0.008		360316	4.78			20710	
D 45 13C9 PFNA										
472.00 > 427.00	6.041	6.033	0.008	1.003	1971214	15.6		156	111608	
44 Perfluorononanoic acid										
463.00 > 419.00		6.033				ND				
463.00 > 169.00		6.033								
D 54 13C6 PFDA										
519.00 > 474.00	6.351	6.344	0.007	1.000	2374917	15.6		156	126107	
53 Perfluorodecanoic acid										
513.00 > 469.00		6.344				ND				
513.00 > 169.00		6.344								
* 55 13C2 PFDA										
515.00 > 470.00	6.351	6.344	0.007		763536	5.00			54104	
56 8:2 FTS										
527.00 > 507.00		6.344				ND				
527.00 > 81.00		6.344								
D 57 M2-8:2 FTS										
529.00 > 81.00	6.351	6.354	-0.003	1.000	53552	12.9		135	3794	
D 59 13C8 FOSA										
506.00 > 78.00	6.426	6.419	0.007	1.012	1858495	12.9		129	77459	
58 Perfluorooctanesulfonamide										
498.00 > 78.00		6.419				0				
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.488	6.491	-0.003	1.021	768278	15.0		150	52870	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
60 NMeFOSAA										
570.00 > 419.00		6.491				ND				
570.00 > 483.00		6.491								
62 Perfluorodecanesulfonic acid										
599.00 > 80.00		6.580				ND				
599.00 > 99.00		6.580								
D 65 13C7 PFUnA										
570.00 > 525.00	6.622	6.615	0.007	1.043	2318744	15.7		157	153222	
63 Perfluoroundecanoic acid										
563.00 > 519.00		6.615				ND				
563.00 > 169.00		6.615								
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.633	6.626	0.007	1.044	561352	15.6		156	37519	
67 NEtFOSAA										
584.00 > 419.00		6.638				ND				
584.00 > 526.00		6.638								
73 Perfluorododecanoic acid										
613.00 > 569.00		6.850				ND				
613.00 > 169.00		6.850								
D 74 13C2-PFDoDA										
615.00 > 570.00	6.854	6.850	0.004	1.079	1599640	14.6		146	86129	
85 Perfluorotridecanoic acid										
663.00 > 619.00		7.056				ND				
663.00 > 169.00		7.056								
86 Perfluorotetradecanoic acid										
713.00 > 669.00		7.226				ND				
713.00 > 169.00		7.226								
D 87 13C2 PFTeDA										
715.00 > 670.00	7.237	7.234	0.003	1.139	1299283	14.0		140	68936	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

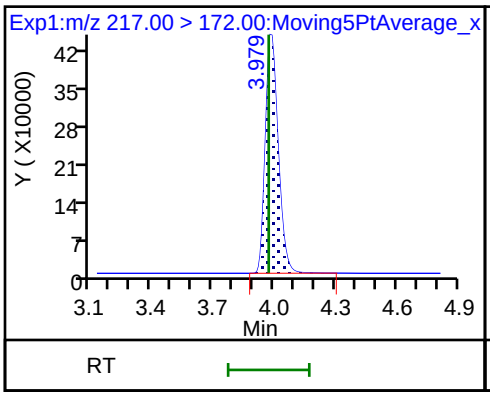
PFC_IS_MOD_00273 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 23-Feb-2022 11:53:13 Chrom Revision: 2.3 16-Feb-2022 17:52:00

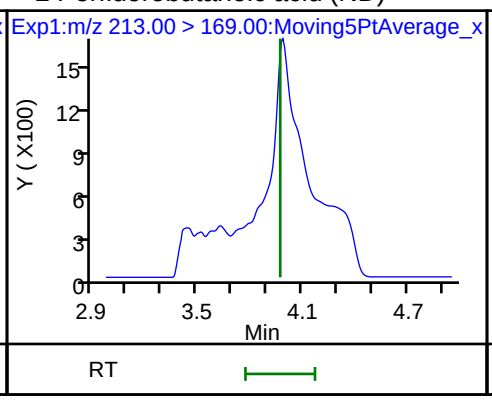
Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-65.d				
Injection Date:	23-Feb-2022 09:35:41	Instrument ID:	30733		
Lims ID:	410-73309-A-4-B	Lab Sample ID:	410-73309-4		
Client ID:	FB-20220216				
Operator ID:	US19_USR_INS20260	ALS Bottle#:	53	Worklist Smp#:	61
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		

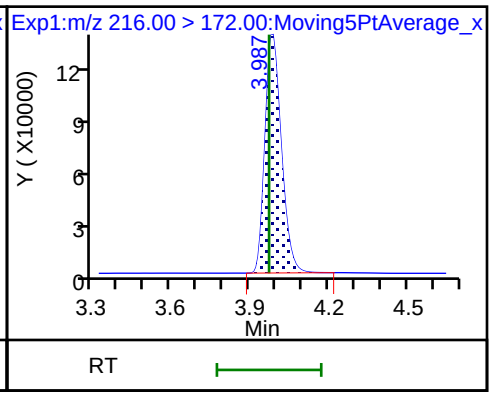
D 3 13C4 PFBA



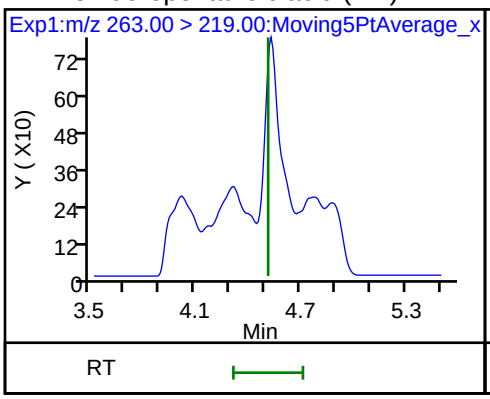
2 Perfluorobutanoic acid (ND)



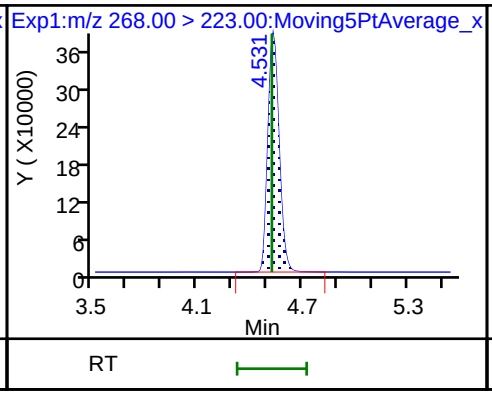
* 4 13C3-PFBA



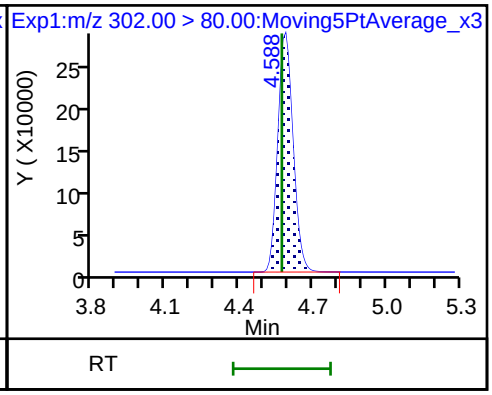
7 Perfluoropentanoic acid (ND)



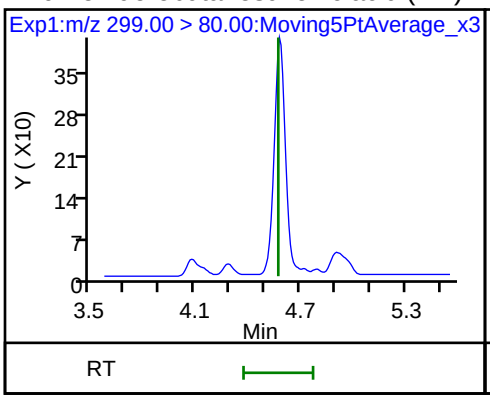
D 8 13C5 PFPeA



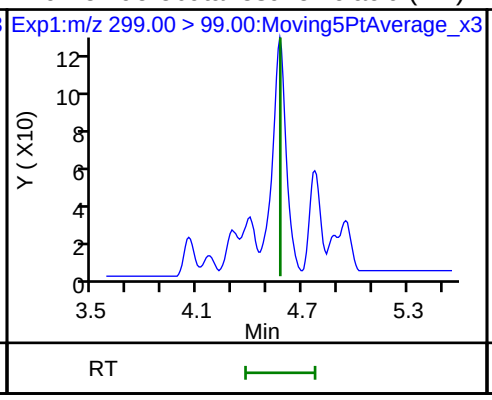
D 11 13C3 PFBS



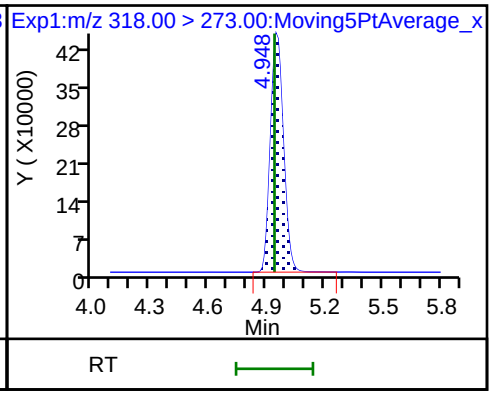
10 Perfluorobutanesulfonic acid (ND)



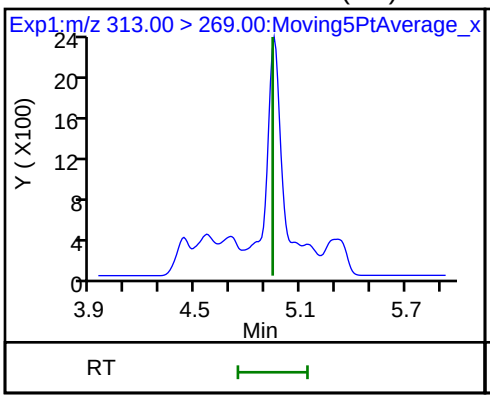
10 Perfluorobutanesulfonic acid (ND)



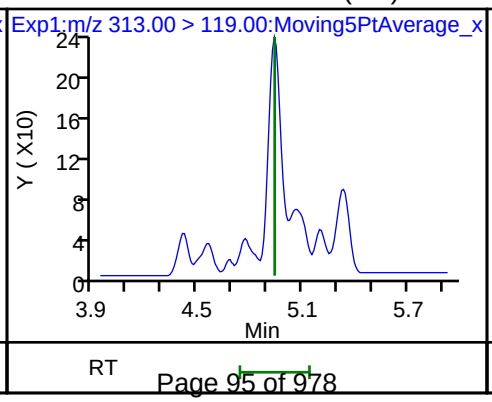
D 19 13C5 PFHxA



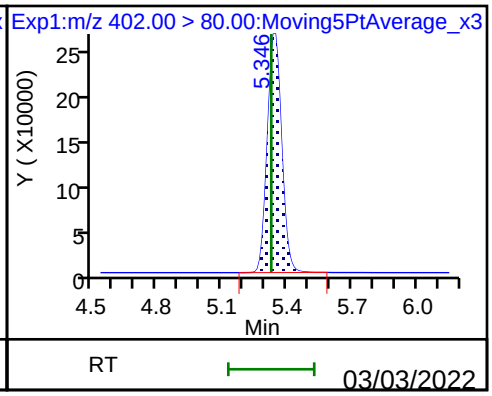
17 Perfluorohexanoic acid (ND)



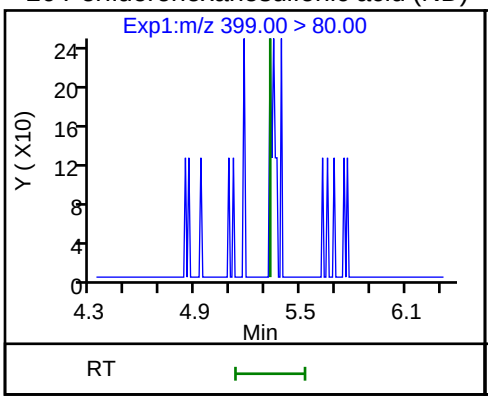
17 Perfluorohexanoic acid (ND)



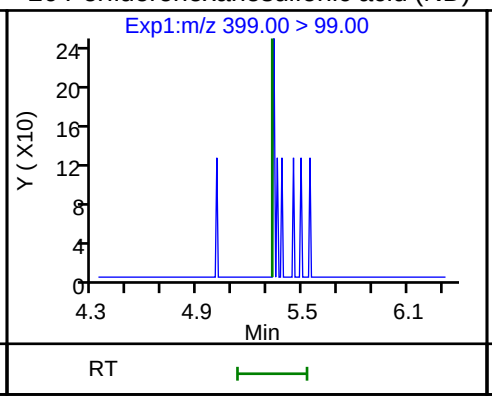
D 25 13C3 PFHxS



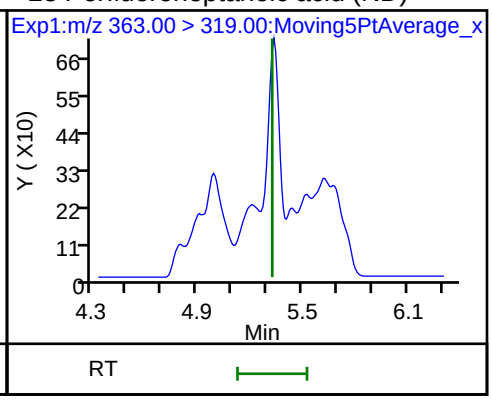
26 Perfluorohexanesulfonic acid (ND)



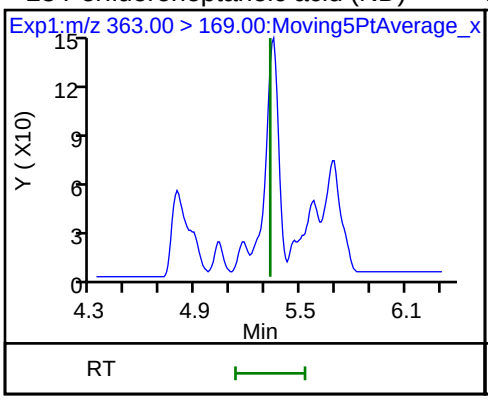
26 Perfluorohexanesulfonic acid (ND)



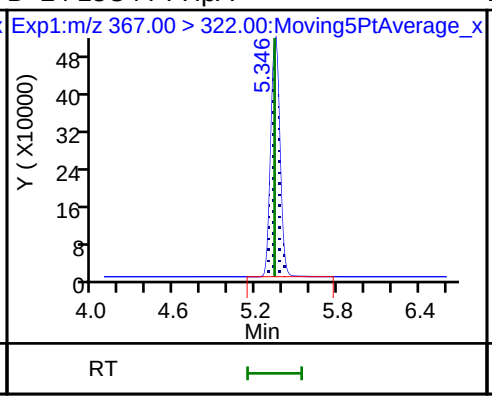
23 Perfluoroheptanoic acid (ND)



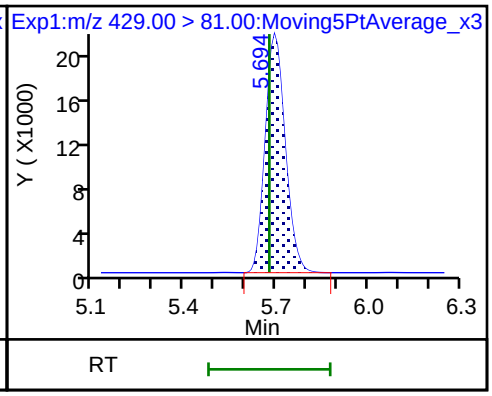
23 Perfluoroheptanoic acid (ND)



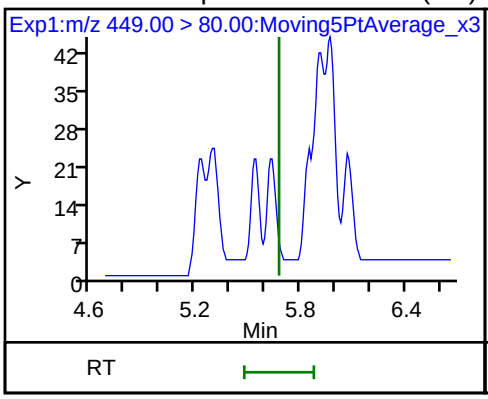
D 24 13C4 PFHpA



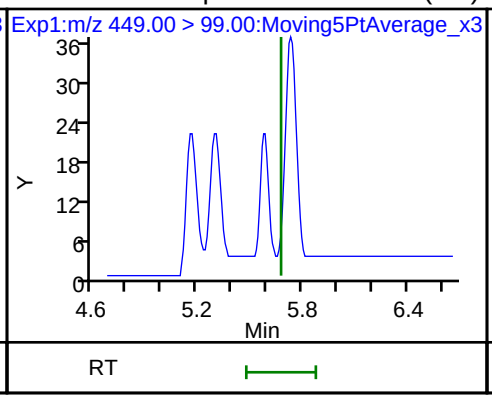
D 35 M2-6:2 FTS



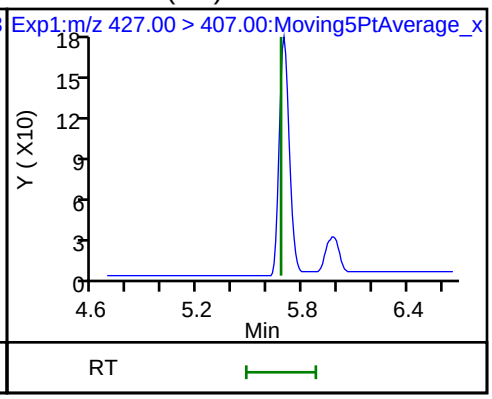
36 Perfluoroheptanesulfonic acid (ND)



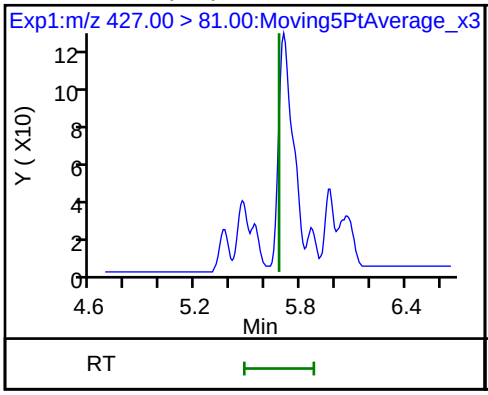
36 Perfluoroheptanesulfonic acid (ND)



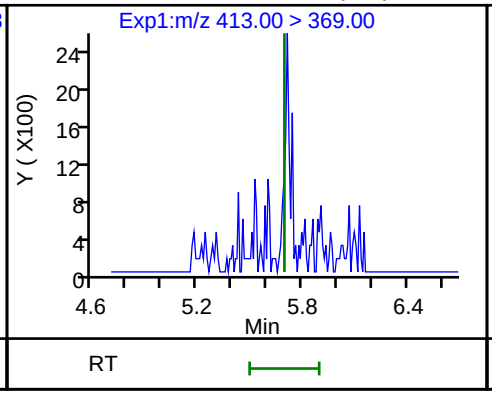
34 6:2 FTS (ND)



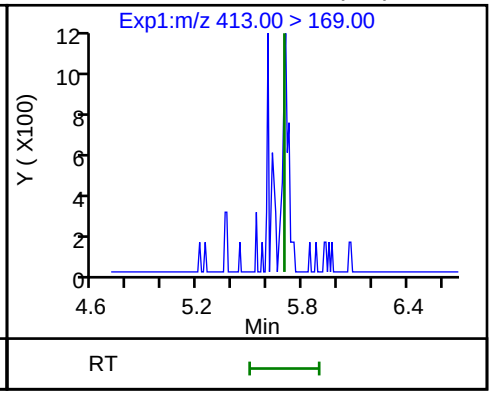
34 6:2 FTS (ND)



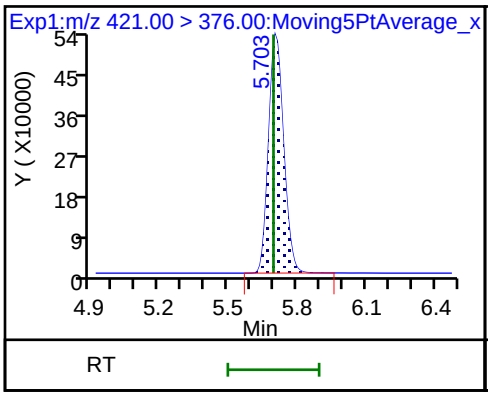
40 Perfluorooctanoic acid (ND)



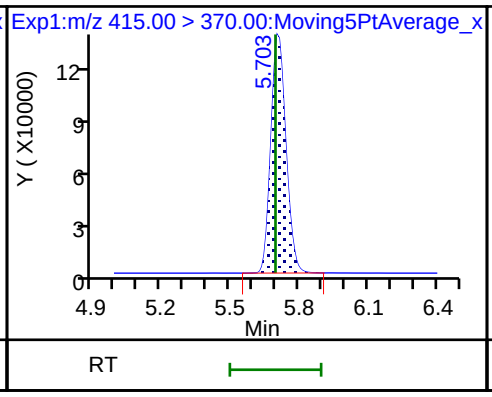
40 Perfluorooctanoic acid (ND)



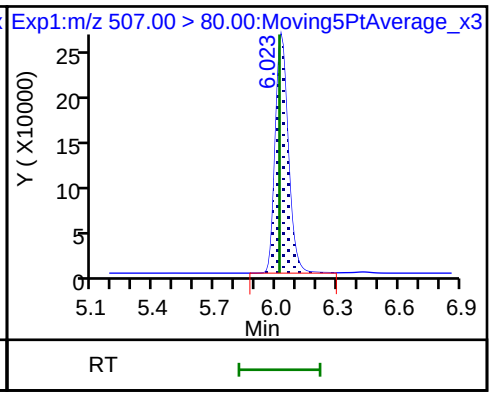
D 37 13C8 PFOA



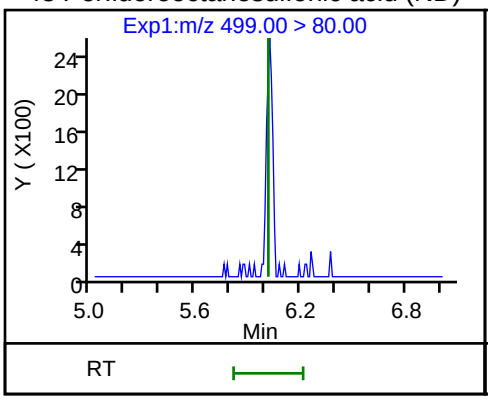
* 38 13C2 PFOA



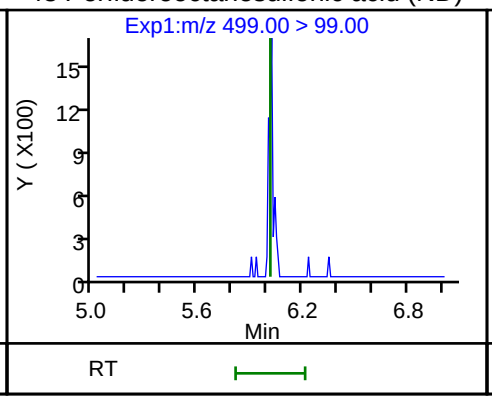
D 41 13C8 PFOS



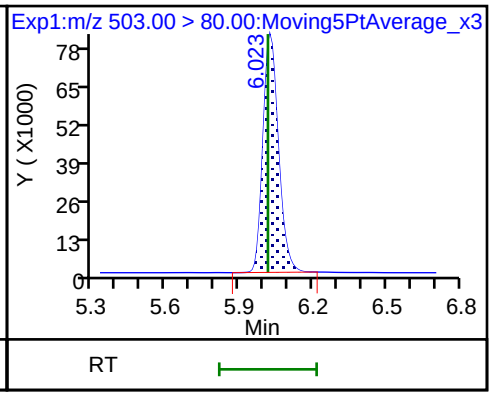
43 Perfluorooctanesulfonic acid (ND)



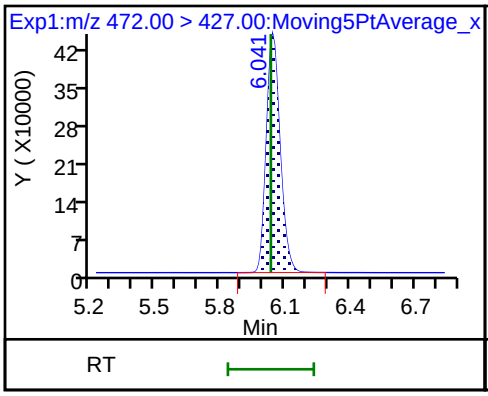
43 Perfluorooctanesulfonic acid (ND)



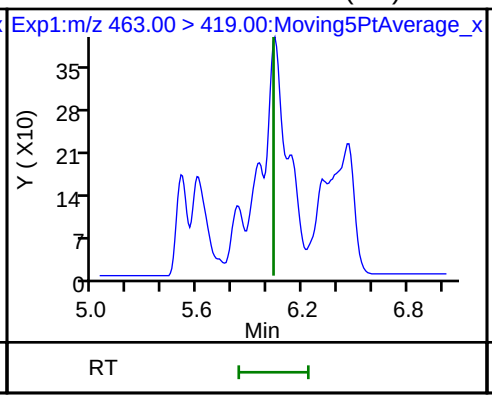
* 42 13C4 PFOS



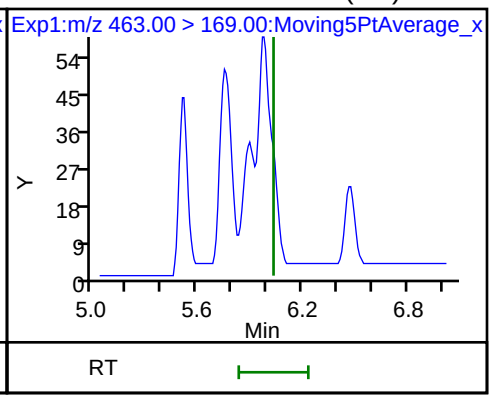
D 45 13C9 PFNA



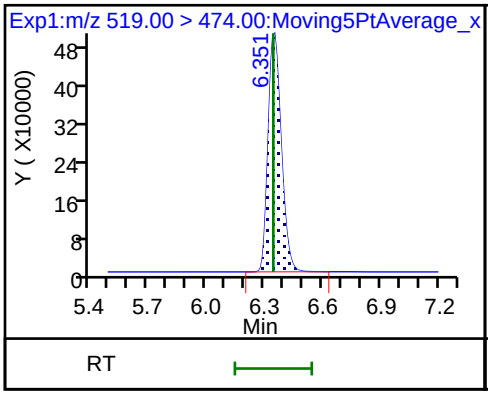
44 Perfluorononanoic acid (ND)



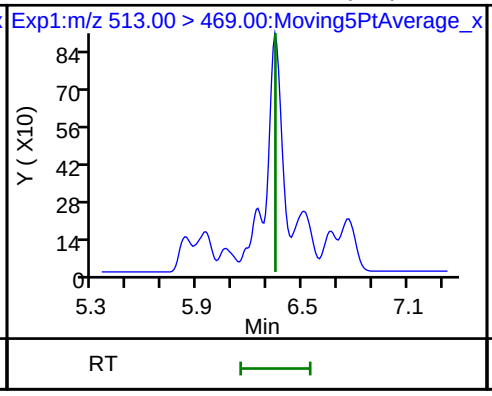
44 Perfluorononanoic acid (ND)



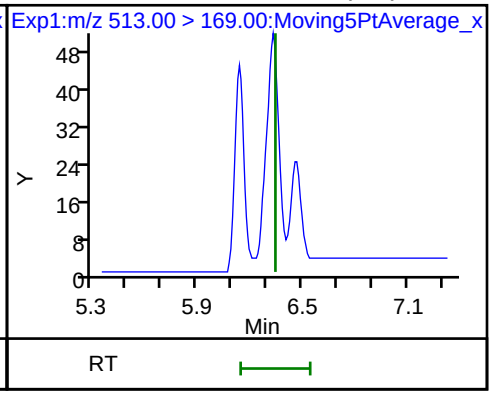
D 54 13C6 PFDA



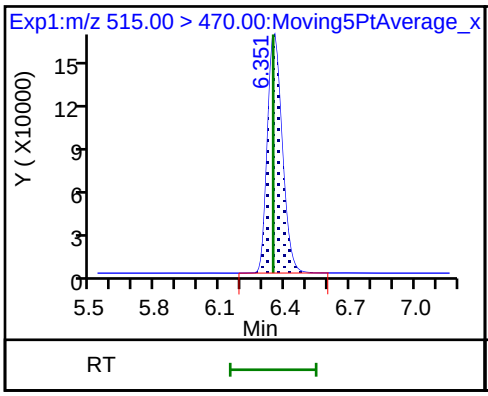
53 Perfluorodecanoic acid (ND)



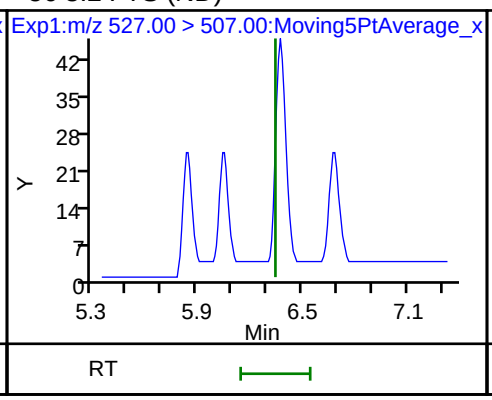
53 Perfluorodecanoic acid (ND)



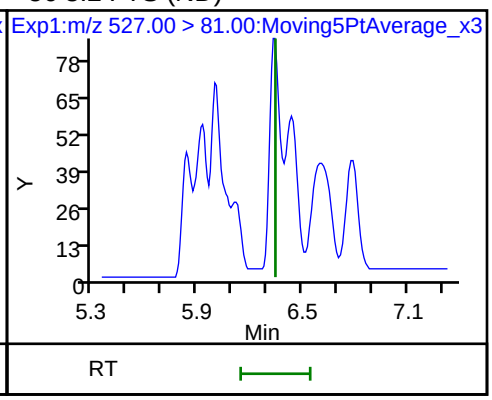
* 55 13C2 PFDA



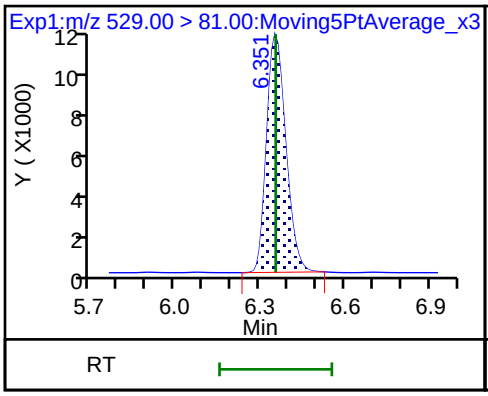
56 8:2 FTS (ND)



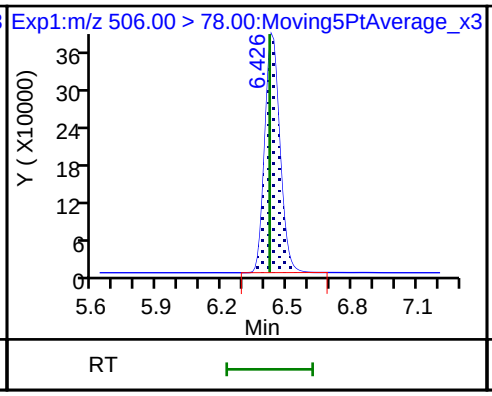
56 8:2 FTS (ND)



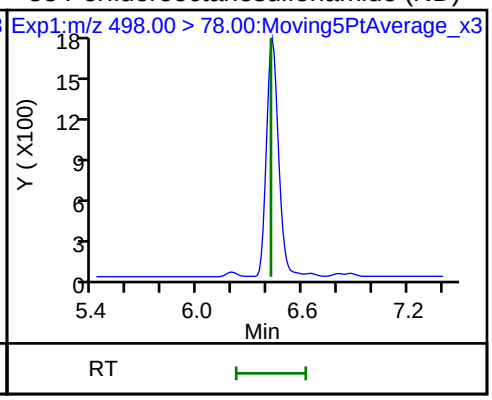
D 57 M2-8:2 FTS



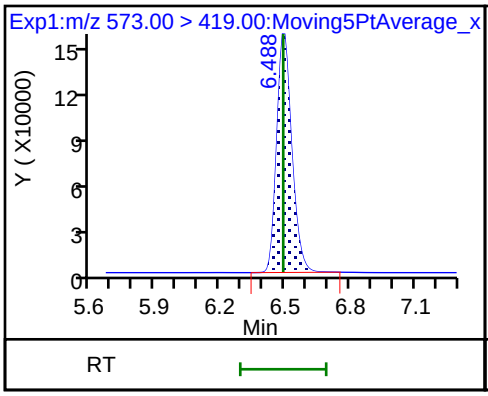
D 59 13C8 FOSA



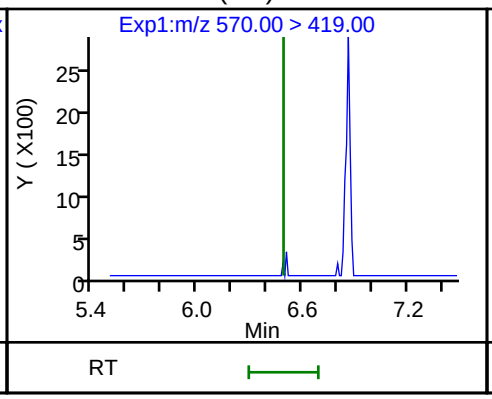
58 Perfluorooctanesulfonamide (ND)



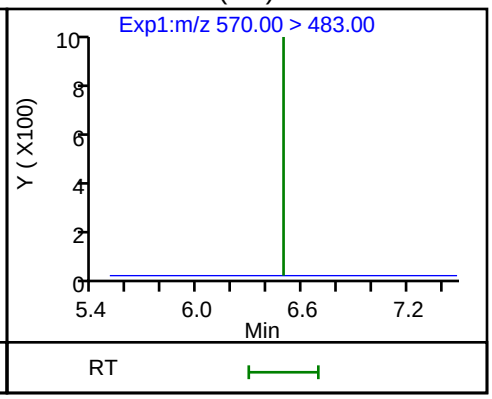
D 61 d3-NMeFOSAA



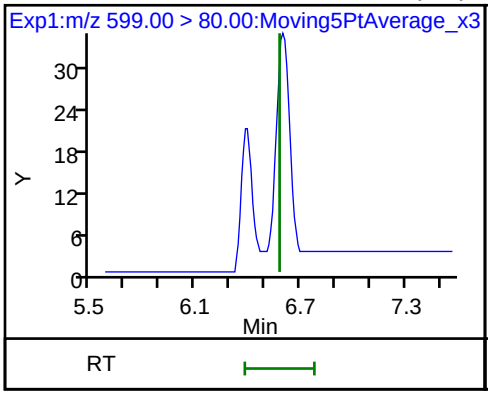
60 NMeFOSAA (ND)



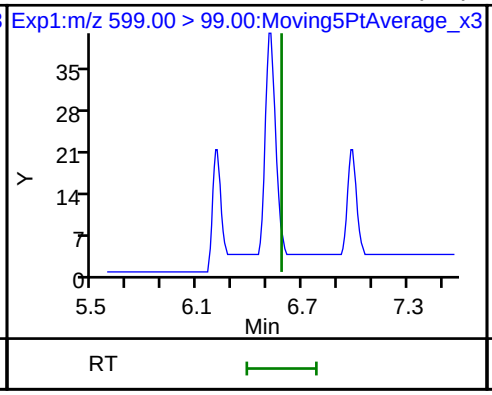
60 NMeFOSAA (ND)



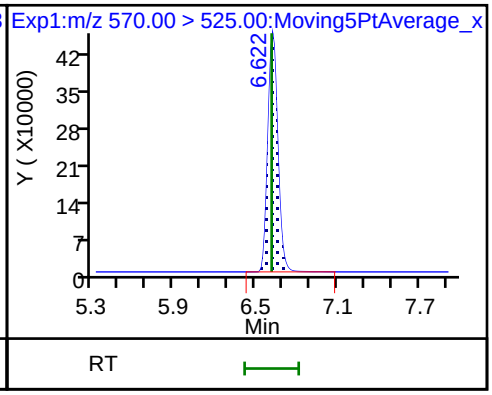
62 Perfluorodecanesulfonic acid (ND)



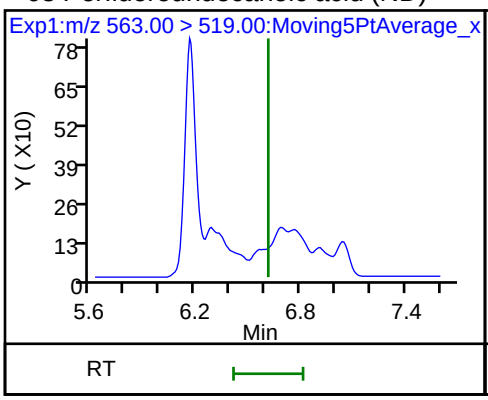
62 Perfluorodecanesulfonic acid (ND)



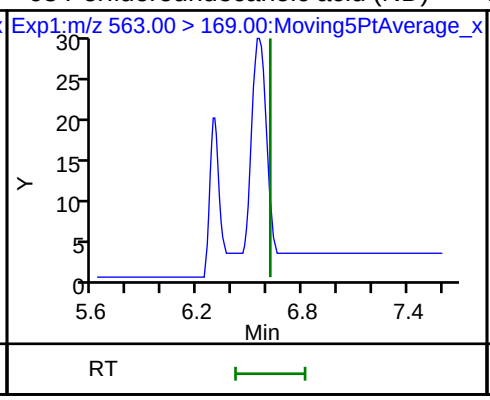
D 65 13C7 PFUnA



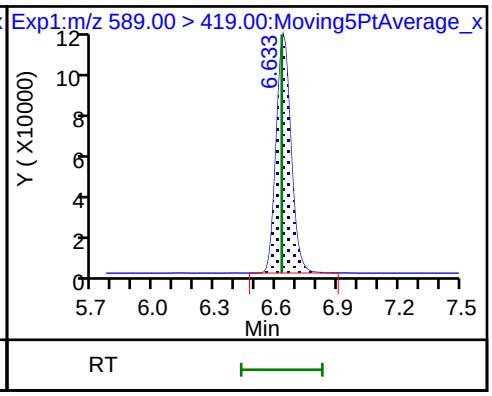
63 Perfluoroundecanoic acid (ND)



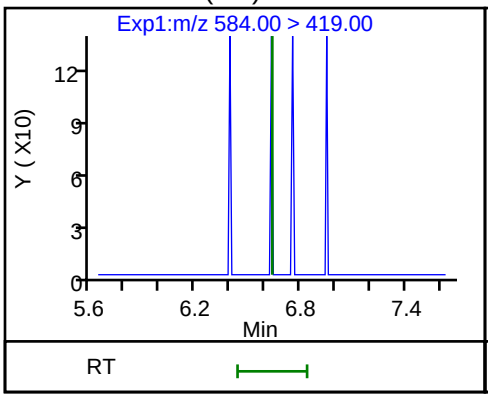
63 Perfluoroundecanoic acid (ND)



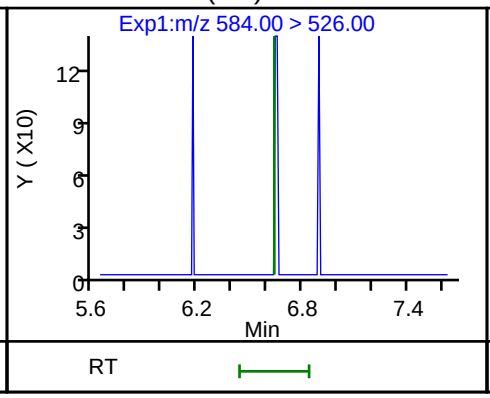
D 66 d5-NEtFOSAA



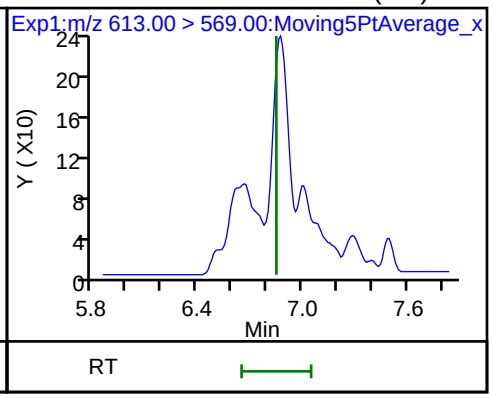
67 NEtFOSAA (ND)



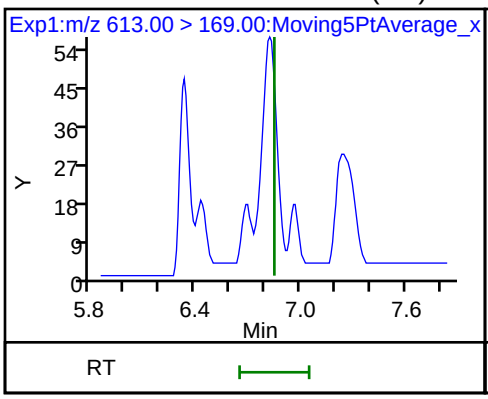
67 NEtFOSAA (ND)



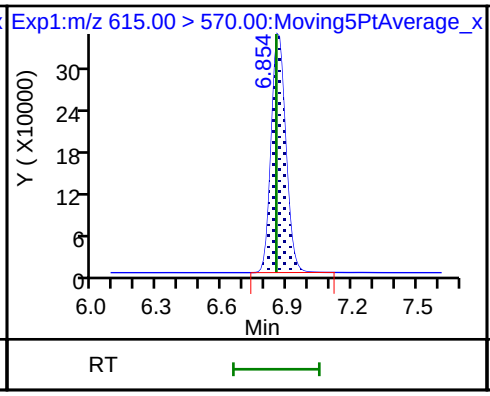
73 Perfluorododecanoic acid (ND)



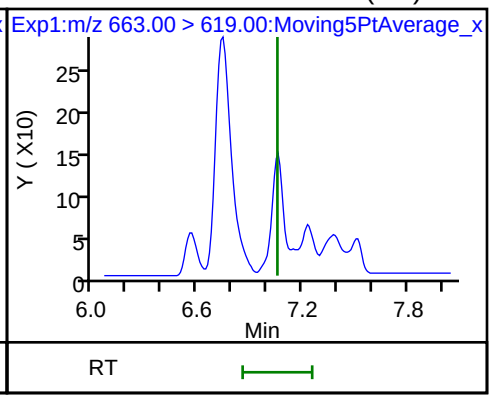
73 Perfluorododecanoic acid (ND)



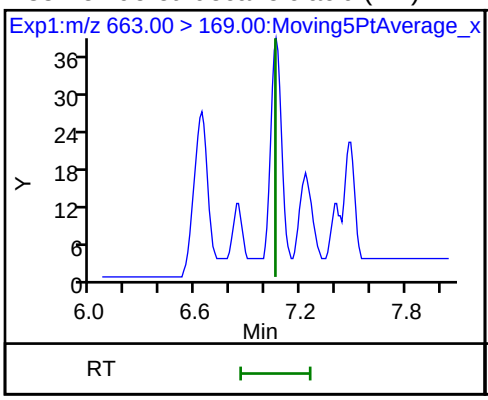
D 74 13C2-PFDoDA



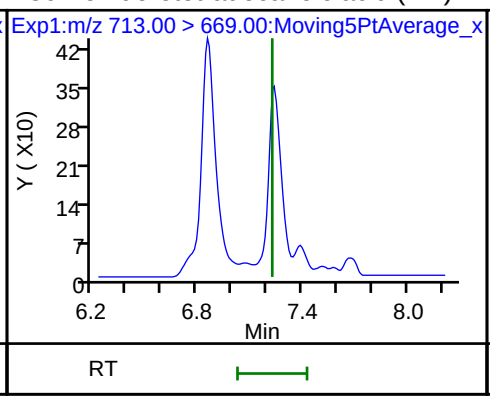
85 Perfluorotridecanoic acid (ND)



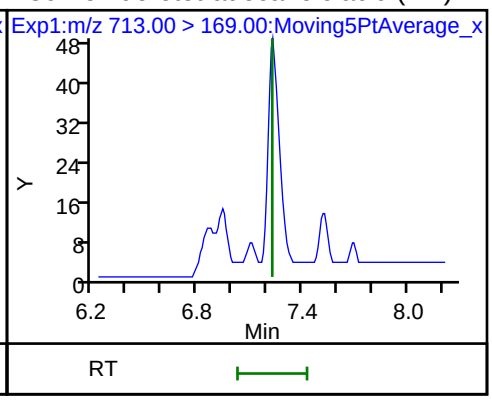
85 Perfluorotridecanoic acid (ND)



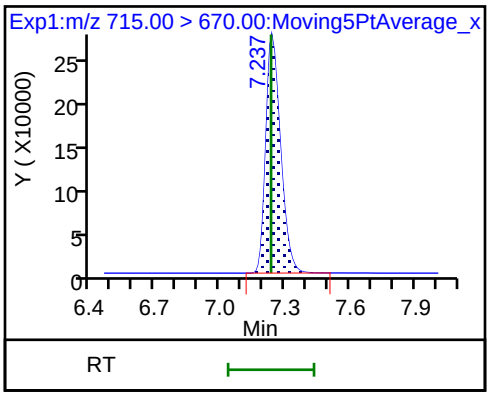
86 Perfluorotetradecanoic acid (ND)



86 Perfluorotetradecanoic acid (ND)



D 87 13C2 PFTeDA



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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-228775/1	22MAR01MCAL-01.d
Level 2	IC 410-228775/2	22MAR01MCAL-02.d
Level 3	IC 410-228775/3	22MAR01MCAL-03.d
Level 4	IC 410-228775/4	22MAR01MCAL-04.d
Level 5	ICISAV 410-228775/5	22MAR01MCAL-05.d
Level 6	IC 410-228775/6	22MAR01MCAL-06.d
Level 7	IC 410-228775/7	22MAR01MCAL-07.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Sodium trifluoromethanesulfonate	0.2668 0.2599	0.2511 0.2803	0.2610	0.2777	0.2708	AveID		0.2668				3.9		20.0			
MTP	0.0849 0.1014	0.0865 0.1087	0.0945	0.1007	0.1009	AveID		0.0968				8.9		20.0			
PPF Acid	0.4310 0.4787	0.4379 0.5069	0.4599	0.4841	0.4817	AveID		0.4686				5.8		20.0			
PFMOAA	0.3803 0.4119	0.3776 0.4288	0.3817	0.4093	0.4114	AveID		0.4002				5.0		20.0			
R-PSDA	0.0403 0.0417	0.0342 0.0424	0.0407	0.0431	0.0412	AveID		0.0405				7.2		20.0			
R-EVE	0.0864 0.0943	0.0763 0.0926	0.0943	0.0997	0.0941	AveID		0.0911				8.3		20.0			
Perfluorobutanoic acid	0.9509 0.8333	0.8012 0.8498	0.8335	0.8930	0.8649	AveID		0.8610				5.7		20.0			
Hydrolyzed PSDA	0.1468 0.1564	0.1389 0.1507	0.1607	0.1685	0.1590	AveID		0.1544				6.4		20.0			
PMPA	0.4743 0.5337	0.4597 0.5366	0.4805	0.5373	0.5528	AveID		0.5107				7.4		20.0			
Perfluoropropanesulfonic acid	0.2045 0.2450	0.2024 0.2445	0.2218	0.2391	0.2503	AveID		0.2297				8.7		20.0			
NVHOS	0.2561 0.2771	0.2598 0.2733	0.2625	0.2785	0.2752	AveID		0.2689				3.4		20.0			
PFECA F	0.9254 0.9315	0.9119 0.9140	0.9479	0.9945	1.0157	AveID		0.9487				4.3		20.0			
PFO2HxA	0.3405 0.4014	0.3443 0.4011	0.3595	0.3941	0.3940	AveID		0.3764				7.2		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
3:3 FTCA	0.0829 0.0811	0.0729 0.0765	0.0751	0.0824	0.0822	AveID		0.0790				5.1		20.0			
Perfluoropentanoic acid	1.2026 1.1540	1.1045 1.0501	1.1356	1.2569	1.2264	AveID		1.1614				6.2		20.0			
Perfluorobutanesulfonic acid	0.9462 0.9691	0.9082 0.9887	0.9534	1.0068	0.9986	AveID		0.9673				3.6		20.0			
PEPA	0.1622 0.1817	0.1658 0.1853	0.1746	0.1864	0.1925	AveID		0.1783				6.3		20.0			
PFECA A	0.9258 1.0681	0.9472 1.0501	1.0179	1.0752	1.0449	AveID		1.0184				5.8		20.0			
Perfluoro (2-ethoxyethane) sulfonic acid	2.7247 2.8802	2.6841 2.9079	2.8647	3.0169	2.9421	AveID		2.8601				4.1		20.0			
PFECA B	1.5162 1.5463	1.5416 1.5458	1.5753	1.6767	1.5825	AveID		1.5692				3.3		20.0			
FBSA	0.0525 0.0491	0.0470 0.0467	0.0462	0.0528	0.0514	AveID		0.0494				5.8		20.0			
4:2 Fluorotelomer sulfonic acid	2.4855 2.6113	2.6556 2.6572	2.6053	2.9591	2.5763	AveID		2.6500				5.6		20.0			
Perfluorohexanoic acid	0.7859 0.7855	0.7379 0.7629	0.7820	0.7542	0.8174	AveID		0.7751				3.3		20.0			
Perfluoropentanesulfonic acid	0.8679 0.9231	0.8827 0.9298	0.8943	0.9673	0.9709	AveID		0.9194				4.4		20.0			
PFO3OA	0.4518 0.4533	0.4333 0.4752	0.4575	0.4841	0.4866	AveID		0.4631				4.2		20.0			
HFPODA	1.1577 1.2422	1.0805 1.4619	1.1918	1.2281	1.2821	AveID		1.2349				9.7		20.0			
Hydro-EVE Acid	1.2812 1.3532	1.2753 1.3308	1.4152	1.5024	1.4648	AveID		1.3747				6.4		20.0			
R-PSDCA	2.3513 2.4375	2.3761 2.4215	2.4579	2.6921	2.5127	AveID		2.4642				4.6		20.0			
FBSEE	0.0571 +++++	0.0539 +++++	0.0540	0.0514	0.0486	AveID		0.0530				6.0		20.0			
Hydro-PS Acid	1.5579 1.6509	1.5692 1.6689	1.7441	1.7765	1.7391	AveID		1.6724				5.2		20.0			
Perfluoroheptanoic acid	0.9420 0.8621	0.8477 0.9382	0.9090	0.9738	0.9405	AveID		0.9162				5.0		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perfluorohexanesulfonic acid	0.9134 0.9730	0.9076 1.0481	0.9617	0.9959	0.9918	AveID		0.9702				5.1		20.0			
DONA	1.1288 1.1966	1.0499 +++++	1.1425	1.2385	1.1847	AveID		1.1568				5.7		20.0			
PFECA G	1.5030 1.5454	1.6559 1.4820	1.6329	1.7676	1.7063	AveID		1.6133				6.6		20.0			
5:3 FTCA	0.1589 0.1823	0.1544 +++++	0.1709	0.1815	0.1782	AveID		0.1711				7.0		20.0			
6:2 FTUCA	1.2336 1.1746	1.1442 1.1715	1.2988	1.3291	1.3242	AveID		1.2395				6.3		20.0			
6:2 FTCA	0.9257 1.0442	0.8963 1.1017	1.0979	1.1003	1.0707	AveID		1.0338				8.4		20.0			
PFO4DA	0.5406 0.5645	0.5612 0.5701	0.5663	0.5747	0.5690	AveID		0.5638				2.0		20.0			
PS Acid	0.5946 0.5189	0.5694 0.5250	0.6217	0.6817	0.6429	AveID		0.5935				10.2		20.0			
EVE Acid	1.3818 1.1787	1.3235 +++++	1.4869	1.5703	1.5427	AveID		1.4140				10.5		20.0			
Perfluoro-4-ethylcyclohexanesulfonic acid	1.1976 1.3556	1.1288 +++++	1.3275	1.4335	1.3935	AveID		1.3061				9.1		20.0			
6:2 Fluorotelomer sulfonic acid	3.2963 3.7229	3.5134 3.6831	3.7699	3.8503	3.6507	AveID		3.6410				5.1		20.0			
Perfluoroheptanesulfonic acid	0.8756 0.9522	0.8827 1.0561	0.9656	1.0313	0.9660	AveID		0.9614				7.0		20.0			
Perfluorooctanoic acid	0.7247 0.7574	0.7099 0.8116	0.7530	0.7258	0.7427	AveID		0.7464				4.5		20.0			
FHxSA	0.0663 0.0679	0.0528 +++++	0.0597	0.0689	0.0671	AveID		0.0638				9.9		20.0			
TAF	0.4854 0.5437	0.5337 0.5661	0.5029	0.5538	0.5480	AveID		0.5334				5.4		20.0			
Perfluorooctanesulfonic acid	0.9425 1.0083	0.8670 1.0617	0.9525	0.9849	1.0250	AveID		0.9774				6.5		20.0			
Perfluorononanoic acid	0.8711 0.8423	0.8675 0.8580	0.8199	0.8903	0.9488	AveID		0.8711				4.7		20.0			
HFPO-TrA	0.0159 0.0128	0.0159 +++++	0.0163	0.0158	0.0141	AveID		0.0151				9.3		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
7:3 FTCA	2.2860 2.3887	1.9733 2.4489	2.7340	2.6431	2.5242	AveID		2.4283				10.3		20.0			
8:2 FTUCA	0.8222 0.9466	0.9040 0.9089	1.0406	0.9751	1.0042	AveID		0.9431				7.7		20.0			
8:2 FTCA	0.9312 0.9715	0.9227 1.0162	1.0708	1.0404	1.0354	AveID		0.9983				5.7		20.0			
9Cl-PF3ONS	1.3891 1.3741	1.3163 1.4380	1.4062	1.4440	1.4721	AveID		1.4057				3.7		20.0			
Perfluorononanesulfonic acid	0.9821 0.9819	0.8714 0.9870	0.9392	1.0341	0.9863	AveID		0.9688				5.3		20.0			
Perfluorodecanoic acid	0.8463 0.8162	0.8223 0.8240	0.8606	0.8663	0.8511	AveID		0.8410				2.4		20.0			
8:2 Fluorotelomer sulfonic acid	5.8075 5.2338	5.9719 5.3687	5.5963	6.3317	5.4905	AveID		5.6858				6.7		20.0			
Perfluorooctanesulfonamide	0.9856 1.0085	0.9501 0.9481	0.9172	1.0538	1.0801	AveID		0.9919				6.0		20.0			
NMeFOSAA	0.8315 0.8374	0.8010 0.8890	0.8838	1.0120	0.9192	AveID		0.8820				7.9		20.0			
Perfluorodecanesulfonic acid	0.8551 1.0161	0.8249 1.0139	0.9148	1.0623	0.9932	AveID		0.9543				9.4		20.0			
Perfluoroundecanoic acid	0.7174 0.7562	0.6909 0.7652	0.7553	0.7766	0.7519	AveID		0.7448				4.0		20.0			
NEtFOSAA	1.0179 0.9657	0.8977 1.0429	0.8927	0.9656	0.9387	AveID		0.9602				5.9		20.0			
10:2 FTUCA	0.9839 0.9496	0.8534 0.9428	1.0188	0.9311	1.0501	AveID		0.9614				6.7		20.0			
11Cl-PF3OUdS	0.9927 1.0723	0.9084 1.0851	1.0539	1.0768	1.0738	AveID		1.0376				6.3		20.0			
10:2 FTCA	0.9650 0.9569	0.9412 0.9668	0.9733	0.9733	1.0315	AveID		0.9726				2.9		20.0			
Perfluorododecanoic acid	0.9074 0.8898	0.8900 0.8798	0.9108	0.9734	0.9341	AveID		0.9122				3.6		20.0			
10:2 FTS	4.4327 4.0152	3.7587 4.3469	4.0687	4.7334	4.2126	AveID		4.2240				7.5		20.0			
NMeFOSE	0.9910 1.0176	0.8891 1.0810	1.0190	1.0669	1.0406	AveID		1.0150				6.3		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
NMeFOSA	0.8635 1.0097	0.8763 1.0343	0.9889	1.0630	0.9931	AveID		0.9755				7.8		20.0			
Perfluorododecanesulfonic acid	0.7844 0.8802	0.7323 0.9108	0.8492	0.9080	0.9028	AveID		0.8525				8.1		20.0			
NEtFOSE	1.0040 0.9777	0.9018 1.0053	0.9642	1.1251	1.0669	AveID		1.0064				7.2		20.0			
NEtFOSA	0.9004 1.0588	0.9800 1.1314	0.9717	1.1329	1.1428	AveID		1.0454				9.2		20.0			
Perfluorotridecanoic acid	0.8078 0.7384	0.7551 0.7449	0.8232	0.8205	0.8507	AveID		0.7915				5.6		20.0			
HFPO-TeA	0.0176 0.0155	0.0140 0.0170	0.0161	0.0169	0.0163	AveID		0.0162				7.4		20.0			
Perfluorotetradecanoic acid	0.9577 0.8256	0.8532 0.8289	0.8899	0.9190	0.9066	AveID		0.8830				5.6		20.0			
Perfluorohexadecanoic acid	0.6545 0.5540	0.5805 0.5348	0.5605	0.6066	0.5852	AveID		0.5823				6.8		20.0			
Perfluorooctadecanoic acid	0.4039 0.4113	0.4090 0.4171	0.4149	0.4415	0.4323	AveID		0.4186				3.2		20.0			
13C4 PFBA	1.0896 1.0696	1.0886 1.0967	1.0630	1.0697	1.0875	Ave		1.0807				1.2		20.0			
13C5 PFPeA	0.8501 0.8543	0.8604 0.9183	0.8734	0.8756	0.8958	Ave		0.8754				2.8		20.0			
13C3 PFBS	0.8802 0.8858	0.8363 0.9123	0.8657	0.8851	0.9297	Ave		0.8850				3.4		20.0			
M2-4:2 FTS	0.1548 0.1231	0.1474 0.1172	0.1488	0.1422	0.1540	Ave		0.1411				10.6		20.0			
13C5 PFHxA	1.2091 1.0973	1.2155 1.1539	1.1127	1.1646	1.1693	Ave		1.1603				3.8		20.0			
13C3 HFPO-DA	0.2741 0.2803	0.2831 0.2770	0.2527	0.2604	0.2795	Ave		0.2724				4.2		20.0			
13C3 PFHxS	0.8720 0.7846	0.8564 0.7521	0.8210	0.8227	0.8630	Ave		0.8246				5.3		20.0			
13C4 PFHpA	1.3161 1.1348	1.4206 1.0499	1.2915	1.2567	1.2824	Ave		1.2503				9.8		20.0			
13C2-2H-Perfluoro-2-octenoic acid	0.7229 0.6174	0.7260 0.6591	0.6479	0.7066	0.6956	Ave		0.6822				6.1		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
13C2-2-Perfluorohexylethanoic acid	0.1176 0.1010	0.1219 0.1027	0.0972	0.1046	0.1066	Ave		0.1074				8.4		20.0			
M2-6:2 FTS	0.0507 0.0444	0.0544 0.0447	0.0522	0.0528	0.0539	Ave		0.0505				8.3		20.0			
13C8 PFOA	1.2411 1.1196	1.3251 1.1208	1.2283	1.2517	1.2829	Ave		1.2242				6.4		20.0			
13C8 PFOS	0.9570 0.9499	0.9914 0.9889	0.9572	0.9484	0.9894	Ave		0.9689				2.1		20.0			
13C9 PFNA	0.9588 0.9545	0.9808 0.9538	0.9707	0.9148	0.9075	Ave		0.9487				2.9		20.0			
13C2-2H-Perfluoro-2-decenoic acid	0.6209 0.5715	0.6494 0.5797	0.5733	0.6816	0.5919	Ave		0.6098				7.0		20.0			
13C2-2-Perfluorooctylethanoic acid	0.0722 0.0686	0.0751 0.0663	0.0634	0.0706	0.0641	Ave		0.0686				6.3		20.0			
13C6 PFDA	0.9261 0.9594	0.9587 0.9706	0.9245	0.9831	0.9583	Ave		0.9544				2.3		20.0			
M2-8:2 FTS	0.0221 0.0259	0.0232 0.0263	0.0239	0.0252	0.0267	Ave		0.0248				7.0		20.0			
13C8 FOSA	1.1418 1.2623	1.2533 1.3473	1.2050	1.2350	1.1771	Ave		1.2317				5.4		20.0			
d3-NMeFOSAA	0.2550 0.2953	0.2512 0.3043	0.2506	0.2555	0.2664	Ave		0.2683				8.3		20.0			
13C7 PFUnA	0.9379 0.9863	1.0379 1.0378	1.0158	1.0567	1.0003	Ave		1.0104				4.0		20.0			
d5-NEtFOSAA	0.1790 0.1929	0.1916 0.1889	0.1966	0.1997	0.1924	Ave		0.1916				3.4		20.0			
13C2-2H-Perfluoro-2-dodecenoic acid	0.4987 0.5457	0.5394 0.5411	0.5203	0.6013	0.5108	Ave		0.5368				6.2		20.0			
13C2-2-Perfluorodecylethanoic acid	0.0472 0.0534	0.0504 0.0530	0.0461	0.0539	0.0457	Ave		0.0499				7.2		20.0			
13C2-PFDoDA	0.7185 0.8069	0.7378 0.8374	0.7397	0.7754	0.7721	Ave		0.7697				5.4		20.0			
d7-N-MeFOSE-M	0.1867 0.2117	0.2025 0.2182	0.1823	0.2027	0.1991	Ave		0.2005				6.3		20.0			
d3-NMePFOSA	0.1163 0.1425	0.1228 0.1450	0.1130	0.1272	0.1257	Ave		0.1275				9.6		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
d9-N-EtFOSE-M	0.2189 0.2371	0.2315 0.2411	0.2218	0.2232	0.2160	Ave		0.2271				4.2		20.0			
d5-NEtPFOSA	0.1127 0.1263	0.1147 0.1266	0.1143	0.1188	0.1162	Ave		0.1185				4.8		20.0			
13C2 PFTeDA	0.5778 0.6641	0.5673 0.7252	0.5806	0.6173	0.6024	Ave		0.6192				9.2		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-228775/1	22MAR01MCAL-01.d
Level 2	IC 410-228775/2	22MAR01MCAL-02.d
Level 3	IC 410-228775/3	22MAR01MCAL-03.d
Level 4	IC 410-228775/4	22MAR01MCAL-04.d
Level 5	ICISAV 410-228775/5	22MAR01MCAL-05.d
Level 6	IC 410-228775/6	22MAR01MCAL-06.d
Level 7	IC 410-228775/7	22MAR01MCAL-07.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Sodium trifluoromethanesulfonate		AveID	43457 10081887	96849 18422623	329552	1350432	3023539	0.196 49.0	0.490 98.0	1.96	7.84	19.6
MTP		AveID	14111 4012878	34035 7288002	121751	499642	1149629	0.200 50.0	0.500 100	2.00	8.00	20.0
PPF Acid		AveID	71639 18950843	172380 34002154	592515	2402063	5487926	0.200 50.0	0.500 100	2.00	8.00	20.0
PFMOAA		AveID	63211 16306052	148613 28763811	491766	2030976	4687651	0.200 50.0	0.500 100	2.00	8.00	20.0
R-PSDA		AveID	5413 1367455	10348 2366507	42715	176848	401371	0.200 50.0	0.500 100	2.00	8.00	20.0
R-EVE		AveID	14361 3733999	30037 6211457	121541	494789	1072338	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorobutanoic acid		AveID	158033 32989605	315369 56999744	1073943	4431096	9853776	0.200 50.0	0.500 100	2.00	8.00	20.0
Hydrolyzed PSDA		AveID	19704 5128271	42000 8406088	168603	691923	1548367	0.200 50.0	0.500 100	2.00	8.00	20.0
PMPA		AveID	78821 21128809	180957 35990945	619096	2665880	6298467	0.200 50.0	0.500 100	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perfluoropropanesulfonic acid		AveID	31132 8882804	72977 15020710	261771	1086905	2612575	0.183 45.8	0.458 91.6	1.83	7.33	18.3
NVHOS		AveID	34384 9083283	78574 15250396	275410	1143368	2680403	0.200 50.0	0.500 100	2.00	8.00	20.0
PFECA F		AveID	153803 36874436	358947 61304061	1221289	4934761	11572261	0.200 50.0	0.500 100	2.00	8.00	20.0
PFO2HxA		AveID	56586 15888760	135519 26903766	463186	1955779	4488915	0.200 50.0	0.500 100	2.00	8.00	20.0
3:3 FTCA		AveID	10744 2564425	22680 4294338	79553	334475	771122	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluoropentanoic acid		AveID	155940 36485733	343592 58974978	1202208	5104769	11508863	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorobutanesulfonic acid		AveID	112421 28116745	243048 48818921	885281	3657884	8607623	0.177 44.3	0.443 88.5	1.77	7.08	17.7
PEPA		AveID	26949 7191202	65242 12427559	224944	924869	2193060	0.200 50.0	0.500 100	2.00	8.00	20.0
PFECA A		AveID	124294 35016792	286411 58586302	1068008	4413988	10177734	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluoro (2-ethoxyethane) sulfonic acid		AveID	325574 84039664	722344 144394226	2675145	11023045	25503447	0.178 44.5	0.445 89.0	1.78	7.12	17.8
PFECA B		AveID	203558 50694364	466168 86244279	1652859	6883544	15413650	0.200 50.0	0.500 100	2.00	8.00	20.0
FBSA		AveID	7051 1610509	14226 2603585	48424	216598	500555	0.200 50.0	0.500 100	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
4:2 Fluorotelomer sulfonic acid		AveID	53123 11007906	124258 17094559	444240	1826393	3822091	0.187 46.7	0.467 93.4	1.87	7.47	18.7
Perfluorohexanoic acid		AveID	140474 31588583	304932 51742098	1067287	4080751	9861512	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluoropentanesulfonic acid		AveID	109298 28386449	250358 48662840	880191	3725025	8870444	0.188 46.9	0.469 93.8	1.88	7.50	18.8
PFO3OA		AveID	75080 17944660	170558 31873567	589486	2401929	5543783	0.200 50.0	0.500 100	2.00	8.00	20.0
HFPODA		AveID	46905 12762898	103989 23798764	369382	1485630	3697496	0.200 50.0	0.500 100	2.00	8.00	20.0
Hydro-EVE Acid		AveID	212925 53569269	501951 89261823	1823379	7454998	16688976	0.200 50.0	0.500 100	2.00	8.00	20.0
R-PSDCA		AveID	315690 79914574	718502 135104284	2579006	11052006	24473542	0.200 50.0	0.500 100	2.00	8.00	20.0
FBSEE		AveID	7663 +++++	16288 +++++	56615	211030	473635	0.200 +++++	0.500 +++++	2.00	8.00	20.0
Hydro-PS Acid		AveID	209165 54125082	474505 93116142	1829969	7293314	16938541	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluoroheptanoic acid		AveID	183274 35855691	409412 57895093	1440003	5686014	12443361	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorohexanesulfonic acid		AveID	107384 25518062	241011 42256260	883241	3471713	8053935	0.182 45.6	0.456 91.2	1.82	7.30	18.2
DONA		AveID	207534 47029508	479158 +++++	1710356	6833968	14813432	0.189 47.3	0.473 +++++	1.89	7.56	18.9

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
PFECA G		AveI D	249798 61178538	651779 99402083	2103827	8770758	19439718	0.200 50.0	0.500 100	2.00	8.00	20.0
5:3 FTCA		AveI D	30923 7581472	74593 +++++	270667	1059913	2358328	0.200 50.0	0.500 +++++	2.00	8.00	20.0
6:2 FTUCA		AveI D	131827 26578168	282423 45386112	1032179	4363666	9503740	0.200 50.0	0.500 100	2.00	8.00	20.0
6:2 FTCA		AveI D	16088 3863708	37153 6649427	130913	534623	1177217	0.200 50.0	0.500 100	2.00	8.00	20.0
PFO4DA		AveI D	89852 22347583	220912 38235561	729628	2851858	6482943	0.200 50.0	0.500 100	2.00	8.00	20.0
PS Acid		AveI D	79827 17012715	172192 29292691	652322	2798499	6261745	0.200 50.0	0.500 100	2.00	8.00	20.0
EVE Acid		AveI D	229643 46664123	520953 +++++	1915726	7791912	17575943	0.200 50.0	0.500 +++++	2.00	8.00	20.0
Perfluoro-4-ethylcyclohexanesulfonic acid		AveI D	142642 36021806	303699 +++++	1235286	5063177	11464566	0.185 46.2	0.462 +++++	1.85	7.39	18.5
6:2 Fluorotelomer sulfonic acid		AveI D	23418 5747542	61655 9176064	229037	896252	1924923	0.190 47.4	0.474 94.8	1.90	7.58	19.0
Perfluoroheptanesulfonic acid		AveI D	107456 26068679	244684 44448532	925710	3753093	8188039	0.190 47.6	0.476 95.2	1.90	7.62	19.0
Perfluorooctanoic acid		AveI D	132947 31077456	319815 53468829	1134425	4221101	9830042	0.200 50.0	0.500 100	2.00	8.00	20.0
FHxSA		AveI D	8550 1952477	15365 +++++	60125	263525	597694	0.200 50.0	0.500 +++++	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
TAF		AveI D	80678 21525553	210054 37971700	647953	2747820	6243498	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorooctanesulfonic acid		AveI D	114878 29243258	249394 51926084	939867	3698438	9154936	0.185 46.3	0.463 92.6	1.85	7.40	18.5
Perfluorononanoic acid		AveI D	114944 26526068	266736 43733298	886537	3483879	8397991	0.200 50.0	0.500 100	2.00	8.00	20.0
HFPO-TrA		AveI D	6441 209620	24558 +++++	50649	95669	122299	2.00 80.0	8.00 +++++	20.0	40.0	60.0
7:3 FTCA		AveI D	39730 8838442	81790 14780519	325998	1284245	2775373	0.200 50.0	0.500 100	2.00	8.00	20.0
8:2 FTUCA		AveI D	91698 20431232	235826 32531644	846513	3350429	7340395	0.200 50.0	0.500 100	2.00	8.00	20.0
8:2 FTCA		AveI D	12078 2516514	27841 4159494	96271	370156	819967	0.200 50.0	0.500 100	2.00	8.00	20.0
9Cl-PF3ONS		AveI D	170142 40047487	380501 70672289	1394321	5448426	13212521	0.186 46.5	0.465 93.0	1.86	7.44	18.6
Perfluorononanesulfonic acid		AveI D	124169 29539563	260017 50070405	961341	4027786	9137557	0.192 48.0	0.480 96.0	1.92	7.68	19.2
Perfluorodecanoic acid		AveI D	140769 29575928	316722 49379465	1129028	4293227	10071383	0.200 50.0	0.500 100	2.00	8.00	20.0
8:2 Fluorotelomer sulfonic acid		AveI D	22048 4913845	53379 8349306	181822	769389	1732746	0.192 47.9	0.479 95.8	1.92	7.66	19.2
Perfluorooctanesulfonamide		AveI D	202118 48079751	478394 78864048	1568454	6560810	15700453	0.200 50.0	0.500 100	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
NMeFOSAA		AveI D	38080 9338815	80842 16701094	314301	1303636	3024366	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorodecanesulfonic acid		AveI D	108558 30698379	247176 51650459	940218	4154888	9240113	0.193 48.2	0.482 96.4	1.93	7.71	19.3
Perfluoroundecanoic acid		AveI D	120855 28168263	288107 49032720	1088669	4136948	9288764	0.200 50.0	0.500 100	2.00	8.00	20.0
NEtFOSAA		AveI D	32726 7036868	69081 12160770	248998	972244	2230106	0.200 50.0	0.500 100	2.00	8.00	20.0
10:2 FTUCA		AveI D	88128 19571160	184950 31494710	752267	2822294	6623509	0.200 50.0	0.500 100	2.00	8.00	20.0
11Cl-PF3OUdS		AveI D	121587 31253560	262589 53327847	1044974	4063195	9637353	0.186 46.5	0.465 93.0	1.86	7.44	18.6
10:2 FTCA		AveI D	8185 1929995	19043 3160771	63668	264241	582115	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorododecanoic acid		AveI D	117099 27113592	263793 45483851	956011	3805243	8906269	0.200 50.0	0.500 100	2.00	8.00	20.0
10:2 FTS		AveI D	16934 3793355	33807 6802550	133018	578770	1337792	0.193 48.2	0.482 96.4	1.93	7.71	19.3
NMeFOSE		AveI D	33236 8135958	72340 14564363	263664	1090039	2558846	0.200 50.0	0.500 100	2.00	8.00	20.0
NMeFOSA		AveI D	18031 5434939	43226 9256412	158642	681517	1541702	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorododecanesulfonic acid		AveI D	99999 26702359	220332 46591643	876396	3566197	8433575	0.194 48.4	0.484 96.8	1.94	7.74	19.4

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
NEtFOSE		AveID	39478 8756193	83874 14967447	303523	1265789	2845389	0.200 50.0	0.500 100	2.00	8.00	20.0
NEtFOSA		AveID	18224 5050158	45163 8841462	157625	678666	1640317	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorotridecanoic acid		AveID	104246 22499808	223812 38511599	864043	3207366	8110630	0.200 50.0	0.500 100	2.00	8.00	20.0
HFPO-TeA		AveID	7062 252570	21276 273996	49550	101431	140012	1.98 79.2	7.92 99.0	19.8	39.6	59.4
Perfluorotetradecanoic acid		AveID	99381 20705176	194470 37112393	733147	2859763	6744664	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorohexadecanoic acid		AveID	67923 13894334	132310 23946453	461755	1887601	4353591	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorooctadecanoic acid		AveID	41915 10315834	93212 18676480	341836	1373976	3215913	0.200 50.0	0.500 100	2.00	8.00	20.0
13C4 PFBA	13C3 PFBA	Ave	8309826 7917637	7872169 6707258	6442139	6202588	5696515	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C5 PFPeA	13C3 PFBA	Ave	6483437 6323449	6221927 5615966	5293178	5076758	4692219	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C3 PFBS	13C3 PFBA	Ave	6243052 6097979	5624354 5188819	4879064	4772536	4529073	9.30 9.30	9.30 9.30	9.30	9.30	9.30
M2-4:2 FTS	13PFOA	Ave	1068669 843106	935823 643328	852578	771518	741786	9.34 9.34	9.34 9.34	9.34	9.34	9.34
13C5 PFHxA	13PFOA	Ave	8937035 8043208	8264970 6782298	6823881	6763778	6032143	10.0 10.0	10.0 10.0	10.0	10.0	10.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
13C3 HFPO-DA	13PF OA	Ave	2025738 2054848	1924782 1627989	1549660	1512143	1441967	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C3 PFHxS	13PF OA	Ave	6097309 5440959	5508806 4182178	4763394	4520164	4211545	9.46 9.46	9.46 9.46	9.46	9.46	9.46
13C4 PFHpA	13PF OA	Ave	9727517 8318053	9659262 6170933	7920631	7298974	6615575	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-2H-Perfluoro-2-octenoic acid	13PF OA	Ave	5342976 4525395	4936493 3874122	3973681	4103858	3588401	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-2-Perfluorohexylethanoic acid	13PF OA	Ave	868990 740010	828987 603551	596193	607351	549745	10.0 10.0	10.0 10.0	10.0	10.0	10.0
M2-6:2 FTS	13PF OA	Ave	355961 309418	351712 249663	304408	291580	264196	9.50 9.50	9.50 9.50	9.50	9.50	9.50
13C8 PFOA	13PF OA	Ave	9173055 8206552	9010326 6587982	7533176	7270047	6618182	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C8 PFOS	PFOS	Ave	6295318 5991956	5942811 5051930	5096452	4848413	4613122	9.56 9.56	9.56 9.56	9.56	9.56	9.56
13C9 PFNA	PFOS	Ave	6597348 6298488	6149718 5097145	5406115	4891698	4425816	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-2H-Perfluoro-2-decenoic acid	PFDA	Ave	5576232 4316597	5217524 3579125	4067561	4295057	3654792	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-2-Perfluorooctylethanoic acid	PFDA	Ave	648493 518045	603445 409321	449524	444720	395964	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C6 PFDA	PFDA	Ave	8316664 7246967	7702903 5992552	6559215	6194779	5916808	10.0 10.0	10.0 10.0	10.0	10.0	10.0
M2-8:2 FTS	PFDA	Ave	189822 187772	178767 155518	162449	151892	157795	9.58 9.58	9.58 9.58	9.58	9.58	9.58
13C8 FOSA	PFDA	Ave	10253441	10070283	8549950	7782530	7268255	10.0	10.0	10.0	10.0	10.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			9534597	8318238				10.0	10.0			
d3-NMeFOSAA	PFDA	Ave	2289917 2230437	2018527 1878705	1778048	1610164	1645094	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C7 PFUnA	PFDA	Ave	8422770 7449660	8339694 6407541	7206854	6658493	6176500	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d5-NEtFOSAA	PFDA	Ave	1607558 1457394	1539115 1166011	1394583	1258594	1187901	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-2H-Perfluoro-2-dodecenoic acid	PFDA	Ave	4478376 4121902	4334198 3340636	3691891	3788851	3153841	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-2-Perfluorodecylethanoic acid	PFDA	Ave	424073 403399	404633 326948	327087	339359	282174	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-PFDoDA	PFDA	Ave	6452528 6094459	5927934 5170046	5248344	4886429	4767188	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d7-N-MeFOSE-M	PFDA	Ave	1676975 1599066	1627285 1347295	1293777	1277092	1229507	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d3-NMePFOSA	PFDA	Ave	1044098 1076543	986591 894960	802090	801384	776244	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d9-N-EtFOSE-M	PFDA	Ave	1965957 1791186	1860126 1488823	1573954	1406294	1333441	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d5-NEtPFOSA	PFDA	Ave	1012012 953933	921737 781448	811120	748830	717676	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2 PFTeDA	PFDA	Ave	5188747 5016056	4558412 4477445	4119290	3889927	3719679	10.0 10.0	10.0 10.0	10.0	10.0	10.0

Curve Type Legend
Ave = Average ISTD
AveID = Average isotope dilution

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-228775/1	22MAR01MCAL-01.d
Level 2	IC 410-228775/2	22MAR01MCAL-02.d
Level 3	IC 410-228775/3	22MAR01MCAL-03.d
Level 4	IC 410-228775/4	22MAR01MCAL-04.d
Level 5	ICISAV 410-228775/5	22MAR01MCAL-05.d
Level 6	IC 410-228775/6	22MAR01MCAL-06.d
Level 7	IC 410-228775/7	22MAR01MCAL-07.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Sodium trifluoromethanesulfonate	0.0 5.1	-5.9	-2.2	4.1	1.5	-2.6	50 30	30	30	30	30	30
MTP	-12.3 12.3	-10.7	-2.4	4.0	4.3	4.7	50 30	30	30	30	30	30
PPF Acid	-8.0 8.2	-6.5	-1.9	3.3	2.8	2.2	50 30	30	30	30	30	30
PFMOAA	-5.0 7.2	-5.6	-4.6	2.3	2.8	2.9	50 30	30	30	30	30	30
R-PSDA	-0.5 4.7	-15.6	0.5	6.3	1.7	2.9	50 30	30	30	30	30	30
R-EVE	-5.2 1.6	-16.2	3.5	9.4	3.3	3.5	50 30	30	30	30	30	30
Perfluorobutanoic acid	10.4 -1.3	-6.9	-3.2	3.7	0.5	-3.2	50 30	30	30	30	30	30
Hydrolyzed PSDA	-5.0 -2.4	-10.1	4.1	9.1	2.9	1.3	50 30	30	30	30	30	30
PMPA	-7.1 5.1	-10.0	-5.9	5.2	8.3	4.5	50 30	30	30	30	30	30
Perfluoropropanesulfonic acid	-11.0 6.5	-11.9	-3.4	4.1	9.0	6.7	50 30	30	30	30	30	30
NVHOS	-4.8 1.6	-3.4	-2.4	3.6	2.3	3.0	50 30	30	30	30	30	30
PFECA F	-2.5 -3.7	-3.9	-0.1	4.8	7.1	-1.8	50 30	30	30	30	30	30
PFO2HxA	-9.5 6.6	-8.5	-4.5	4.7	4.7	6.6	50 30	30	30	30	30	30
3:3 FTCA	4.9 -3.2	-7.7	-4.9	4.2	4.0	2.7	50 30	30	30	30	30	30

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Perfluoropentanoic acid	3.5 -9.6	-4.9	-2.2	8.2	5.6	-0.6	50 30	30	30	30	30	30
Perfluorobutanesulfonic acid	-2.2 2.2	-6.1	-1.4	4.1	3.2	0.2	50 30	30	30	30	30	30
PEPA	-9.1 3.9	-7.1	-2.1	4.5	7.9	1.9	50 30	30	30	30	30	30
PFECA A	-9.1 3.1	-7.0	-0.1	5.6	2.6	4.9	50 30	30	30	30	30	30
Perfluoro (2-ethoxyethane) sulfonic acid	-4.7 1.7	-6.2	0.2	5.5	2.9	0.7	50 30	30	30	30	30	30
PFECA B	-3.4 -1.5	-1.8	0.4	6.9	0.8	-1.5	50 30	30	30	30	30	30
FBSA	6.4 -5.5	-4.7	-6.5	6.8	4.1	-0.5	50 30	30	30	30	30	30
4:2 Fluorotelomer sulfonic acid	-6.2 0.3	0.2	-1.7	11.7	-2.8	-1.5	50 30	30	30	30	30	30
Perfluorohexanoic acid	1.4 -1.6	-4.8	0.9	-2.7	5.5	1.3	50 30	30	30	30	30	30
Perfluoropentanesulfonic acid	-5.6 1.1	-4.0	-2.7	5.2	5.6	0.4	50 30	30	30	30	30	30
PFO3OA	-2.5 2.6	-6.4	-1.2	4.5	5.1	-2.1	50 30	30	30	30	30	30
HFPODA	-6.2 18.4	-12.5	-3.5	-0.6	3.8	0.6	50 30	30	30	30	30	30
Hydro-EVE Acid	-6.8 -3.2	-7.2	2.9	9.3	6.6	-1.6	50 30	30	30	30	30	30
R-PSDCA	-4.6 -1.7	-3.6	-0.3	9.2	2.0	-1.1	50 30	30	30	30	30	30
FBSEE	7.7 +++++	1.7	1.8	-3.0	-8.2	+++++	50	30	30	30	30	
Hydro-PS Acid	-6.8 -0.2	-6.2	4.3	6.2	4.0	-1.3	50 30	30	30	30	30	30
Perfluoroheptanoic acid	2.8 2.4	-7.5	-0.8	6.3	2.6	-5.9	50 30	30	30	30	30	30
Perfluorohexanesulfonic acid	-5.9 8.0	-6.5	-0.9	2.6	2.2	0.3	50 30	30	30	30	30	30
DONA	-2.4 +++++	-9.2	-1.2	7.1	2.4	3.4	50	30	30	30	30	30

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
PFECA G	-6.8 -8.1	2.6	1.2	9.6	5.8	-4.2	50 30	30	30	30	30	30
5:3 FTCA	-7.1 +++++	-9.7	-0.1	6.1	4.2	6.6	50	30	30	30	30	30
6:2 FTUCA	-0.5 -5.5	-7.7	4.8	7.2	6.8	-5.2	50 30	30	30	30	30	30
6:2 FTCA	-10.5 6.6	-13.3	6.2	6.4	3.6	1.0	50 30	30	30	30	30	30
PFO4DA	-4.1 1.1	-0.5	0.4	1.9	0.9	0.1	50 30	30	30	30	30	30
PS Acid	0.2 -11.5	-4.0	4.8	14.9	8.3	-12.6	50 30	30	30	30	30	30
EVE Acid	-2.3 +++++	-6.4	5.2	11.1	9.1	-16.6	50	30	30	30	30	30
Perfluoro-4-ethylcyclohexanesulfonic acid	-8.3 +++++	-13.6	1.6	9.8	6.7	3.8	50	30	30	30	30	30
6:2 Fluorotelomer sulfonic acid	-9.5 1.2	-3.5	3.5	5.8	0.3	2.3	50 30	30	30	30	30	30
Perfluoroheptanesulfonic acid	-8.9 9.9	-8.2	0.4	7.3	0.5	-1.0	50 30	30	30	30	30	30
Perfluorooctanoic acid	-2.9 8.7	-4.9	0.9	-2.8	-0.5	1.5	50 30	30	30	30	30	30
FHxSA	4.0 +++++	-17.3	-6.4	8.1	5.2	6.4	50	30	30	30	30	30
TAF	-9.0 6.1	0.1	-5.7	3.8	2.7	1.9	50 30	30	30	30	30	30
Perfluorooctanesulfonic acid	-3.6 8.6	-11.3	-2.6	0.8	4.9	3.2	50 30	30	30	30	30	30
Perfluorononanoic acid	0.0 -1.5	-0.4	-5.9	2.2	8.9	-3.3	50 30	30	30	30	30	30
HFPO-TrA	4.9 +++++	5.3	7.9	4.4	-6.7	-15.8	50	30	30	30	30	30
7:3 FTCA	-5.9 0.8	-18.7	12.6	8.8	3.9	-1.6	50 30	30	30	30	30	30
8:2 FTUCA	-12.8 -3.6	-4.1	10.3	3.4	6.5	0.4	50 30	30	30	30	30	30
8:2 FTCA	-6.7 1.8	-7.6	7.3	4.2	3.7	-2.7	50 30	30	30	30	30	30

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
9Cl-PF3ONS	-1.2 2.3	-6.4	0.0	2.7	4.7	-2.2	50 30	30	30	30	30	30
Perfluorononanesulfonic acid	1.4 1.9	-10.1	-3.1	6.7	1.8	1.3	50 30	30	30	30	30	30
Perfluorodecanoic acid	0.6 -2.0	-2.2	2.3	3.0	1.2	-2.9	50 30	30	30	30	30	30
8:2 Fluorotelomer sulfonic acid	2.1 -5.6	5.0	-1.6	11.4	-3.4	-7.9	50 30	30	30	30	30	30
Perfluorooctanesulfonamide	-0.6 -4.4	-4.2	-7.5	6.2	8.9	1.7	50 30	30	30	30	30	30
NMeFOSAA	-5.7 0.8	-9.2	0.2	14.7	4.2	-5.1	50 30	30	30	30	30	30
Perfluorodecanesulfonic acid	-10.4 6.2	-13.6	-4.1	11.3	4.1	6.5	50 30	30	30	30	30	30
Perfluoroundecanoic acid	-3.7 2.7	-7.2	1.4	4.3	1.0	1.5	50 30	30	30	30	30	30
NEtFOSAA	6.0 8.6	-6.5	-7.0	0.6	-2.2	0.6	50 30	30	30	30	30	30
10:2 FTUCA	2.3 -1.9	-11.2	6.0	-3.1	9.2	-1.2	50 30	30	30	30	30	30
11Cl-PF3OUdS	-4.3 4.6	-12.4	1.6	3.8	3.5	3.4	50 30	30	30	30	30	30
10:2 FTCA	-0.8 -0.6	-3.2	0.1	0.1	6.1	-1.6	50 30	30	30	30	30	30
Perfluorododecanoic acid	-0.5 -3.6	-2.4	-0.2	6.7	2.4	-2.5	50 30	30	30	30	30	30
10:2 FTS	4.9 2.9	-11.0	-3.7	12.1	-0.3	-4.9	50 30	30	30	30	30	30
NMeFOSE	-2.4 6.5	-12.4	0.4	5.1	2.5	0.3	50 30	30	30	30	30	30
NMeFOSA	-11.5 6.0	-10.2	1.4	9.0	1.8	3.5	50 30	30	30	30	30	30
Perfluorododecanesulfonic acid	-8.0 6.8	-14.1	-0.4	6.5	5.9	3.2	50 30	30	30	30	30	30
NEtFOSE	-0.2 -0.1	-10.4	-4.2	11.8	6.0	-2.9	50 30	30	30	30	30	30
NEtFOSA	-13.9 8.2	-6.3	-7.1	8.4	9.3	1.3	50 30	30	30	30	30	30

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Perfluorotridecanoic acid	2.1 -5.9	-4.6	4.0	3.7	7.5	-6.7	50 30	30	30	30	30	30
HFPO-TeA	8.6 4.8	-13.9	-0.4	4.5	0.8	-4.3	50 30	30	30	30	30	30
Perfluorotetradecanoic acid	8.5 -6.1	-3.4	0.8	4.1	2.7	-6.5	50 30	30	30	30	30	30
Perfluorohexadecanoic acid	12.4 -8.2	-0.3	-3.7	4.2	0.5	-4.9	50 30	30	30	30	30	30
Perfluorooctadecanoic acid	-3.5 -0.3	-2.3	-0.9	5.5	3.3	-1.7	50 30	30	30	30	30	30
13C4 PFBA	0.8 1.5	0.7	-1.6	-1.0	0.6	-1.0	30 30	30	30	30	30	30
13C5 PFPeA	-2.9 4.9	-1.7	-0.2	0.0	2.3	-2.4	30 30	30	30	30	30	30
13C3 PFBS	-0.5 3.1	-5.5	-2.2	0.0	5.1	0.1	30 30	30	30	30	30	30
M2-4:2 FTS	9.7 -16.9	4.5	5.5	0.8	9.1	-12.7	30 30	30	30	30	30	30
13C5 PFHxA	4.2 -0.6	4.8	-4.1	0.4	0.8	-5.4	30 30	30	30	30	30	30
13C3 HFPO-DA	0.6 1.7	3.9	-7.2	-4.4	2.6	2.9	30 30	30	30	30	30	30
13C3 PFHxS	5.8 -8.8	3.9	-0.4	-0.2	4.7	-4.8	30 30	30	30	30	30	30
13C4 PFHpA	5.3 -16.0	13.6	3.3	0.5	2.6	-9.2	30 30	30	30	30	30	30
13C2-2H-Perfluoro-2-octenoic acid	6.0 -3.4	6.4	-5.0	3.6	2.0	-9.5	30 30	30	30	30	30	30
13C2-2-Perfluorohexylethanoic acid	9.5 -4.3	13.6	-9.4	-2.6	-0.7	-6.0	30 30	30	30	30	30	30
M2-6:2 FTS	0.4 -11.4	7.9	3.5	4.7	6.8	-12.0	30 30	30	30	30	30	30
13C8 PFOA	1.4 -8.4	8.2	0.3	2.2	4.8	-8.5	30 30	30	30	30	30	30
13C8 PFOS	-1.2 2.1	2.3	-1.2	-2.1	2.1	-2.0	30 30	30	30	30	30	30
13C9 PFNA	1.1 0.5	3.4	2.3	-3.6	-4.3	0.6	30 30	30	30	30	30	30

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 228775

SDG No.:

Instrument ID: 30728 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2022 21:15 Calibration End Date: 03/01/2022 22:21 Calibration ID: 35852

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
13C2-2H-Perfluoro-2-decenoic acid	1.8 -4.9	6.5	-6.0	11.8	-2.9	-6.3	30 30	30	30	30	30	30
13C2-2-Perfluorooctylethanoic acid	5.3 -3.4	9.5	-7.7	2.9	-6.5	0.0	30 30	30	30	30	30	30
13C6 PFDA	-3.0 1.7	0.5	-3.1	3.0	0.4	0.5	30 30	30	30	30	30	30
M2-8:2 FTS	-10.9 6.2	-6.2	-3.4	1.6	7.8	4.8	30 30	30	30	30	30	30
13C8 FOSA	-7.3 9.4	1.8	-2.2	0.3	-4.4	2.5	30 30	30	30	30	30	30
d3-NMeFOSAA	-5.0 13.4	-6.4	-6.6	-4.8	-0.7	10.0	30 30	30	30	30	30	30
13C7 PFUnA	-7.2 2.7	2.7	0.5	4.6	-1.0	-2.4	30 30	30	30	30	30	30
d5-NEtFOSAA	-6.6 -1.4	0.0	2.6	4.3	0.4	0.7	30 30	30	30	30	30	30
13C2-2H-Perfluoro-2-dodecenoic acid	-7.1 0.8	0.5	-3.1	12.0	-4.8	1.7	30 30	30	30	30	30	30
13C2-2-Perfluorodecylethanoic acid	-5.4 6.0	0.8	-7.7	7.8	-8.5	6.9	30 30	30	30	30	30	30
13C2-PFDoDA	-6.6 8.8	-4.1	-3.9	0.7	0.3	4.8	30 30	30	30	30	30	30
d7-N-MeFOSE-M	-6.9 8.9	1.0	-9.0	1.1	-0.7	5.6	30 30	30	30	30	30	30
d3-NMePFOSA	-8.8 13.7	-3.7	-11.3	-0.3	-1.4	11.8	30 30	30	30	30	30	30
d9-N-EtFOSE-M	-3.6 6.2	1.9	-2.3	-1.7	-4.9	4.4	30 30	30	30	30	30	30
d5-NEtPFOSA	-4.9 6.8	-3.2	-3.5	0.3	-1.9	6.6	30 30	30	30	30	30	30
13C2 PFTeDA	-6.7 17.1	-8.4	-6.2	-0.3	-2.7	7.2	30 30	30	30	30	30	30

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d
Lims ID: IC CAL 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 01-Mar-2022 21:15:20 ALS Bottle#: 20002 Worklist Smp#: 1
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL 1
Misc. Info.: Plate: 1 Rack: 1 410-0051412-001
Operator ID: US19_USR_INS20261 Instrument ID: 30728
Sublist: chrom-PFAS_30728_XList*sub16

Method: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 01-Mar-2022 23:52:27 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1606

First Level Reviewer: polaskia Date: 01-Mar-2022 23:19:24
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.065	1.065	0.0	0.279	43457	0.1960		100	806	
1 MTP										
175.00 > 97.00	1.526	1.518	0.008	0.400	14111	0.1755		87.7	344	
2 PPF Acid										M
163.00 > 119.00	1.870	1.874	-0.004	0.490	71639	0.1840		92.0	285	M
3 PFMOAA										M
179.00 > 85.00	2.890	2.891	-0.001	0.757	63211	0.1901		95.0	517	M
4 R-PSDA										M
441.00 > 241.00	3.794	3.792	0.002	0.850	5413	0.1990		99.5	293	M
5 R-EVE										M
405.00 > 217.00	3.794	3.793	0.001	0.995	14361	0.1897		94.8	1078	M
7 Perfluorobutanoic acid										M
213.00 > 169.00	3.815	3.816	-0.001	1.000	158033	0.2209		110	572	M
D 6 13C4 PFBA										
217.00 > 172.00	3.815	3.816	-0.001	1.000	8309826	10.1		101	178773	
* 8 13C3-PFBA										
216.00 > 172.00	3.815	3.817	-0.002		3813167	5.00			9245	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.815	3.817	-0.002	0.855	19704	0.1901		95.0	1345	
10 PMPA										M
229.00 > 185.00	3.953	3.956	-0.003	1.036	78821	0.1857		92.9	924	M
11 PFPrS										
249.00 > 99.00	4.015	4.020	-0.005	1.053	31132	0.1631		89.0	1660	
12 NVHOS										M
297.00 > 135.00	4.054	4.060	-0.006	0.909	34384	0.1905		95.2	1719	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 PFECA F										
229.00 > 85.00	4.083	4.082	0.001	1.070	153803	0.1951		97.5	13405	
14 PFO2HxA										M
245.00 > 85.00	4.279	4.286	-0.007	1.122	56586	0.1809		90.5	2669	M
15 3:3 FTCA										M
241.00 > 177.00	4.405	4.403	0.002	1.000	10744	0.2098		105	654	M
16 Perfluoropentanoic acid										M
263.00 > 219.00	4.405	4.404	0.001	1.000	155940	0.2071		104	773	M
D 17 13C5 PFPeA										
268.00 > 223.00	4.405	4.404	0.001	1.155	6483437	9.71		97.1	171209	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.454	4.460	-0.006	0.998	112421	0.1731	Target=3.14	97.8	2983	
299.00 > 99.00	4.454	4.460	-0.006	0.998	34573		3.25(1.57-4.71)	97.8	1440	
D 19 13C3 PFBS										
302.00 > 80.00	4.462	4.462	0.0	1.170	6243052	9.25		99.5	324086	
20 PEPA										M
279.00 > 235.00	4.517	4.517	0.0	1.184	26949	0.1819		90.9	469	M
21 PFECA A										
279.00 > 85.00	4.536	4.543	-0.007	1.017	124294	0.1818		90.9	6441	
22 PES										
315.00 > 135.00	4.637	4.638	-0.001	1.039	325574	0.1696		95.3	14040	
23 PFECA B										
201.00 > 85.00	4.766	4.771	-0.005	1.068	203558	0.1932	Target=1.81	96.6	7170	
295.00 > 201.00	4.766	4.771	-0.005	1.068	112194		1.81(0.90-2.71)	96.6	5795	
110 FBSA										M
299.00 > 78.00	4.786	4.792	-0.006	1.073	7051	0.2127		106	460	M
24 4:2 FTS										
327.00 > 307.00	4.796	4.803	-0.007	0.998	53123	0.1752	Target=1.33	93.8	3644	
327.00 > 81.00	4.806	4.803	0.003	1.000	56782		0.94(0.66-1.99)	93.8	2066	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.806	4.806	0.0	0.854	1068669	10.2		110	43803	
26 Perfluorohexanoic acid										M
313.00 > 269.00	4.835	4.843	-0.008	0.998	140474	0.2028	Target=12.64	101	1965	M
313.00 > 119.00	4.835	4.843	-0.008	0.998	10961		12.82(6.32-18.96)	101	523	
D 27 13C5 PFHxA										
318.00 > 273.00	4.845	4.846	-0.001	0.861	8937035	10.4		104	288790	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.855	4.863	-0.008	1.088	109298	0.1771	Target=3.66	94.4	7215	
349.00 > 99.00	4.855	4.863	-0.008	1.088	29726		3.68(1.83-5.49)	94.4	1951	
29 PFO3OA										
311.00 > 85.00	4.895	4.903	-0.008	1.283	75080	0.1951		97.5	4713	
30 HFPO-DA										
329.00 > 285.00	4.978	4.978	0.0	1.000	46905	0.1875		93.8	950	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.978	4.983	-0.005	0.884	2025738	10.1		101	134085	
32 Hydro-EVE Acid										
427.00 > 283.00	5.200	5.201	-0.001	1.363	212925	0.1864		93.2	22581	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
33 R-PSDCA										
397.00 > 217.00	5.200	5.209	-0.009	1.165	315690	0.1908		95.4	9744	
108 FBSEE										M
386.00 > 166.00	5.211	5.220	-0.009	1.168	7663	0.2154	Target=1.76	108	465	
386.00 > 80.00	5.222	5.220	0.002	1.170	4302		1.78(0.88-2.64)	108	245	M
34 Hydro-PS Acid										
463.00 > 263.00	5.265	5.246	0.019	1.180	209165	0.1863		93.2	41530	
D 37 13C3 PFHxS										
402.00 > 80.00	5.255	5.254	0.001	0.933	6097309	10.0		106	374828	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.255	5.254	0.001	1.000	183274	0.2056	Target=3.54	103	2237	
363.00 > 169.00	5.244	5.254	-0.010	0.998	48186		3.80(1.77-5.31)	103	1775	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.255	5.254	0.001	1.000	107384	0.1717	Target=3.57	94.1	230	
399.00 > 99.00	5.244	5.254	-0.010	0.998	30374		3.54(1.78-5.35)	94.1	78.1	
D 38 13C4 PFHpA										
367.00 > 322.00	5.255	5.255	0.0	0.933	9727517	10.5		105	447153	
39 DONA										
377.00 > 251.00	5.298	5.303	-0.005	1.008	207534	0.1844		97.6	5681	
40 PFECA G										
379.00 > 185.00	5.319	5.322	-0.003	1.394	249798	0.1863		93.2	11857	
41 5:3 FTCA										
341.00 > 237.00	5.330	5.338	-0.008	1.014	30923	0.1858	Target=3.04	92.9	1527	
341.00 > 217.00	5.330	5.338	-0.008	1.014	9651		3.20(1.52-4.55)	92.9	610	
42 6:2 FTUCA										
357.00 > 293.00	5.360	5.359	0.001	1.000	131827	0.1991		99.5	3684	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.360	5.361	-0.001	0.952	5342976	10.6		106	152899	
44 6:2 FTCA										
377.00 > 293.00	5.378	5.378	0.0	1.000	16088	0.1791		89.5	631	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.378	5.379	-0.001	0.955	868990	11.0		110	44935	
46 PFO4DA										
377.00 > 85.00	5.429	5.435	-0.006	1.423	89852	0.1918		95.9	1133	
47 PS Acid										
443.00 > 147.00	5.480	5.479	0.001	1.228	79827	0.2004		100	5733	
48 EVE Acid										
407.00 > 263.00	5.499	5.500	-0.001	1.442	229643	0.1954		97.7	11999	
49 PFECHS										
461.00 > 381.00	5.568	5.569	-0.001	1.060	142642	0.1694	Target=1.56	91.7	9851	
461.00 > 99.00	5.560	5.569	-0.009	1.058	85691		1.66(0.78-2.34)	91.7	5901	
50 6:2 FTS										M
427.00 > 407.00	5.612	5.613	-0.001	1.000	23418	0.1717	Target=1.19	90.5	1547	M
427.00 > 81.00	5.612	5.613	-0.001	1.000	19702		1.19(0.60-1.79)	90.5	1342	M
D 52 M2-6:2 FTS										
429.00 > 81.00	5.612	5.614	-0.002	0.997	355961	9.54		100	24192	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
51 Perfluoroheptanesulfonic acid										M
449.00 > 80.00	5.612	5.618	-0.006	1.068	107456	0.1734	Target=3.73	91.1	7562	
449.00 > 99.00	5.612	5.618	-0.006	1.068	31133		3.45(1.87-5.60)	91.1	2123	M
53 Perfluorooctanoic acid										M
413.00 > 369.00	5.621	5.630	-0.009	0.998	132947	0.1942	Target=2.20	97.1	4537	M
413.00 > 169.00	5.621	5.630	-0.009	0.998	60796		2.19(1.10-3.30)	97.1	8199	M
* 55 13C2 PFOA										
415.00 > 370.00	5.630	5.631	-0.001		3695625	5.00			252330	
D 54 13C8 PFOA										
421.00 > 376.00	5.630	5.631	-0.001	1.000	9173055	10.1		101	263757	
106 FHxSA										M
399.00 > 78.00	5.689	5.692	-0.003	1.083	8550	0.2079		104	565	M
56 TAF										
443.00 > 85.00	5.873	5.879	-0.006	1.540	80678	0.1820		91.0	4248	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.956	5.954	0.002	1.000	114878	0.1785	Target=4.38	96.4	151	
499.00 > 99.00	5.947	5.954	-0.007	0.999	30569		3.76(2.19-6.58)	96.4	79.8	
* 59 13C4 PFOS										
503.00 > 80.00	5.956	5.955	0.001		3290715	4.78			174102	
D 58 13C8 PFOS										
507.00 > 80.00	5.956	5.955	0.001	1.000	6295318	9.44		98.8	82790	
61 Perfluorononanoic acid										M
463.00 > 419.00	5.973	5.973	0.0	1.000	114944	0.2000	Target=3.95	100	2209	M
463.00 > 169.00	5.965	5.973	-0.008	0.999	28679		4.01(1.97-5.92)	100	1464	M
D 60 13C9 PFNA										
472.00 > 427.00	5.973	5.975	-0.002	1.003	6597348	10.1		101	350475	
109 HFPO-TrA										
496.00 > 185.00	6.064	6.068	-0.004	1.218	6441	2.10		105	438	
62 7:3 FTCA										
441.00 > 337.00	6.073	6.077	-0.004	1.129	39730	0.1883		94.1	2048	
63 8:2 FTUCA										
457.00 > 393.00	6.083	6.084	-0.001	1.000	91698	0.1744		87.2	3123	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.083	6.085	-0.002	0.968	5576232	10.2		102	125552	
65 8:2 FTCA										M
477.00 > 393.00	6.093	6.099	-0.006	0.998	12078	0.1866		93.3	786	M
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.103	6.102	0.001	0.972	648493	10.5		105	43996	
67 9ClFOS										M
531.00 > 351.00	6.123	6.130	-0.007	1.028	170142	0.1838		98.8	2239	M
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.256	6.254	0.002	1.050	124169	0.1946	Target=4.33	101	9207	
549.00 > 99.00	6.247	6.254	-0.007	1.049	28842		4.31(2.16-6.49)	101	2295	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.281	6.279	0.002	1.000	140769	0.2013	Target=7.98	101	2925	
513.00 > 169.00	6.273	6.279	-0.006	0.999	15701		8.97(3.99-11.97)	101	1216	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
72 8:2 FTS										M
527.00 > 507.00	6.281	6.282	-0.001	1.000	22048	0.1957	Target=1.01	102	1639	M
527.00 > 81.00	6.281	6.282	-0.001	1.000	21852		1.01(0.50-1.51)	102	945	
* 70 13C2 PFDA										
515.00 > 470.00	6.281	6.282	-0.001		4490095	5.00			323933	
D 71 13C6 PFDA										
519.00 > 474.00	6.281	6.282	-0.001	1.000	8316664	9.70		97.0	593071	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.281	6.285	-0.004	1.000	189822	8.54		89.1	13284	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.374	6.371	0.003	1.000	202118	0.1987		99.4	7761	
D 74 13C8 FOSA										
506.00 > 78.00	6.374	6.375	-0.001	1.015	10253441	9.27		92.7	495628	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.426	6.428	-0.002	1.023	2289917	9.50		95.0	88761	
76 NMeFOSAA										
570.00 > 419.00	6.426	6.429	-0.003	1.000	38080	0.1885	Target=1.69	94.3	11982	
570.00 > 483.00	6.416	6.429	-0.013	0.998	24987		1.52(0.85-2.54)	94.3	54.9	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.516	6.522	-0.006	1.094	108558	0.1727	Target=4.28	89.6	6969	
599.00 > 99.00	6.516	6.522	-0.006	1.094	23807		4.56(2.14-6.42)	89.6	1485	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.551	6.550	0.001	1.000	120855	0.1926	Target=7.28	96.3	1249	
563.00 > 169.00	6.539	6.550	-0.011	0.998	16001		7.55(3.64-10.92)	96.3	989	
D 80 13C7 PFUnA										
570.00 > 525.00	6.551	6.557	-0.006	1.043	8422770	9.28		92.8	509833	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.563	6.569	-0.006	1.045	1607558	9.34		93.4	48372	
82 NEtFOSAA										
584.00 > 419.00	6.575	6.570	0.005	1.002	32726	0.2120	Target=1.63	106	66.2	
584.00 > 526.00	6.563	6.570	-0.007	1.000	18998		1.72(0.82-2.45)	106	28.7	
83 10:2 FTUCA										
557.00 > 493.00	6.655	6.654	0.001	1.000	88128	0.2047		102	4086	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.655	6.660	-0.005	1.059	4478376	9.29		92.9	206283	
84 11ClFOS										
631.00 > 451.00	6.655	6.660	-0.005	1.117	121587	0.1780		95.7	5649	
86 10:2 FTCA										M
577.00 > 493.00	6.665	6.670	-0.005	1.000	8185	0.1985		99.2	513	M
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.665	6.670	-0.005	1.061	424073	9.46		94.6	25662	
88 Perfluorododecanoic acid										M
613.00 > 569.00	6.791	6.787	0.004	1.000	117099	0.1990	Target=4.76	99.5	3041	M
613.00 > 169.00	6.791	6.787	0.004	1.000	20771		5.64(2.38-7.14)	99.5	960	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.791	6.796	-0.005	1.081	6452528	9.34		93.4	394474	

Report Date: 01-Mar-2022 23:52:28 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
90 10:2 FTS										
627.00 > 607.00	6.814	6.810	0.004	1.085	16934	0.2023	Target=0.75	105	1055	
627.00 > 81.00	6.803	6.810	-0.007	1.083	20384		0.83(0.38-1.13)	105	1244	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.814	6.813	0.001	1.085	1676975	9.31		93.1	13724	
92 N-MeFOSE-M										
616.00 > 59.00	6.824	6.820	0.004	1.002	33236	0.1953		97.6	624	
94 NMeFOSA										
512.00 > 169.00	6.824	6.829	-0.005	1.000	18031	0.1770		88.5	1189	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.824	6.829	-0.005	1.086	1044098	9.12		91.2	19946	
95 PFDoS										
699.00 > 80.00	6.962	6.967	-0.005	1.169	99999	0.1781		92.0	5180	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.972	6.973	-0.001	1.110	1965957	9.64		96.4	23910	
97 N-EtFOSE-M										
630.00 > 59.00	6.981	6.981	0.0	1.001	39478	0.1995		99.8	1092	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.990	6.995	-0.005	1.113	1012012	9.51		95.1	23063	
100 N-EtFOSA-M										
526.00 > 169.00	6.990	6.996	-0.006	1.000	18224	0.1723		86.1	741	
99 Perfluorotridecanoic acid										
663.00 > 619.00	6.990	6.996	-0.006	1.029	104246	0.2041	Target=4.11	102	1922	
663.00 > 169.00	6.990	6.996	-0.006	1.029	25651		4.06(2.06-6.17)	102	1815	
105 HFPOTeA										M
661.00 > 185.00	7.062	7.058	0.004	1.419	7062	2.15	Target=4.76	109	477	M
661.00 > 119.00	7.062	7.058	0.004	1.419	1309		5.39(2.38-7.14)	109	89.7	M
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.179	7.181	-0.002	1.000	99381	0.2169	Target=4.34	108	2335	
713.00 > 169.00	7.179	7.181	-0.002	1.000	22826		4.35(2.17-6.50)	108	1565	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.179	7.184	-0.005	1.143	5188747	9.33		93.3	215340	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.481	7.483	-0.002	1.042	67923	0.2248	Target=5.44	112	2354	
813.00 > 169.00	7.481	7.483	-0.002	1.042	12140		5.59(2.72-8.16)	112	823	
104 Perfluorooctadecanoic acid										M
913.00 > 869.00	7.716	7.717	-0.001	1.075	41915	0.1930	Target=6.37	96.5	2969	
913.00 > 169.00	7.716	7.717	-0.001	1.075	6682		6.27(3.18-9.55)	96.5	629	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD1_00013 Amount Added: 200.00 Units: uL

Report Date: 01-Mar-2022 23:52:28 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d

Injection Date: 01-Mar-2022 21:15:20 Instrument ID: 30728

Lims ID: IC CAL 1

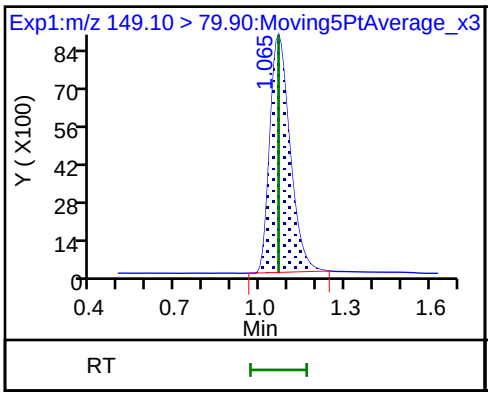
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20002 Worklist Smp#: 1

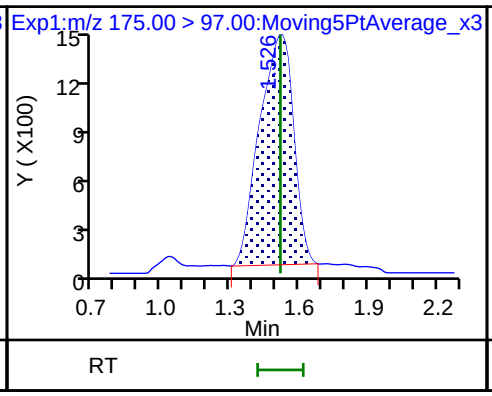
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

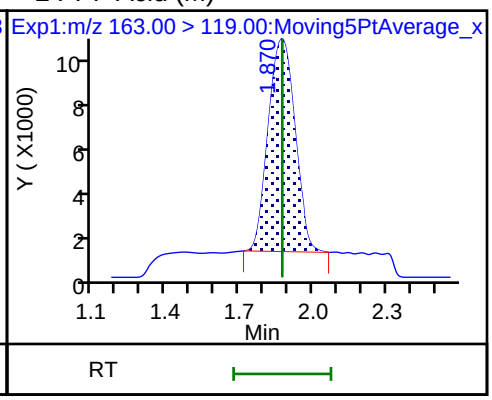
107 Sodium trifluoromethanesulfonate



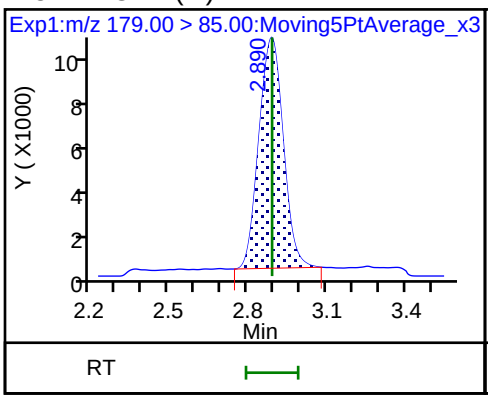
1 MTP



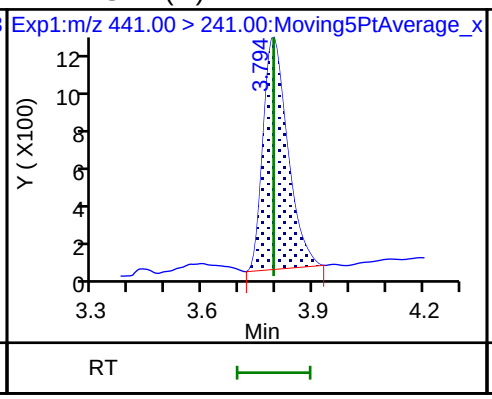
2 PPF Acid (M)



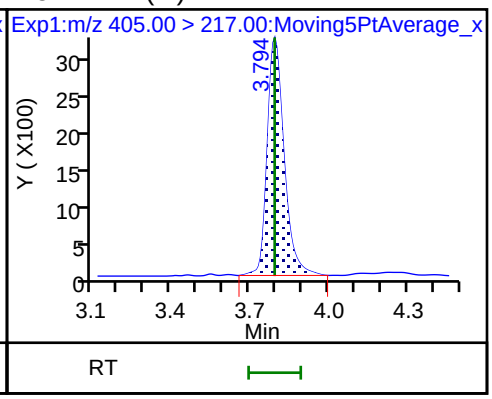
3 PFMOAA (M)



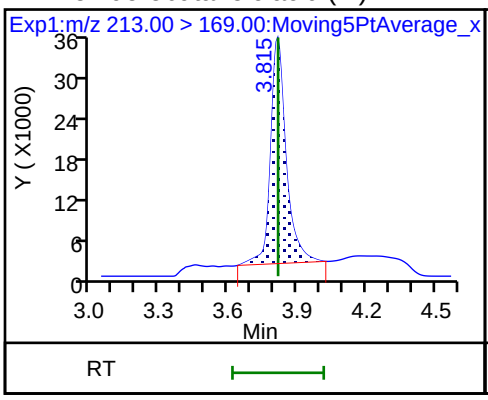
4 R-PSDA (M)



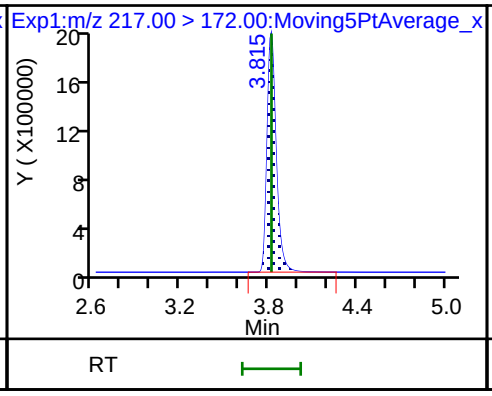
5 R-EVE (M)



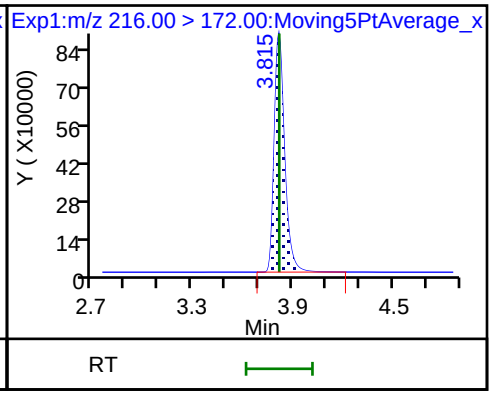
7 Perfluorobutanoic acid (M)



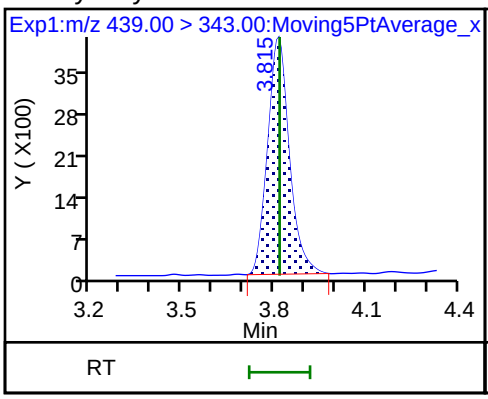
D 6 13C4 PFBA



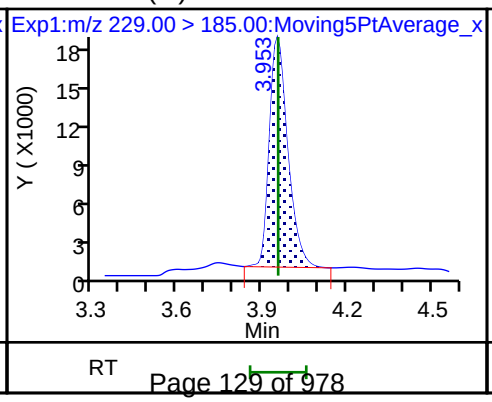
* 8 13C3-PFBA



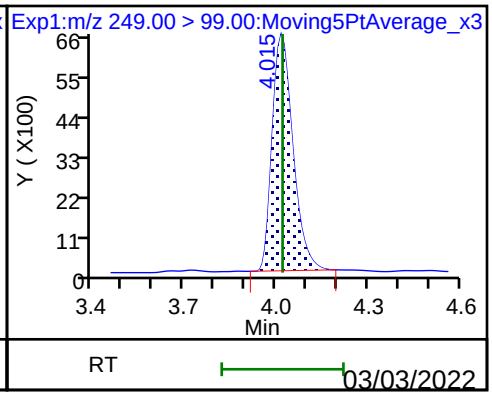
9 Hydrolyzed PSDA



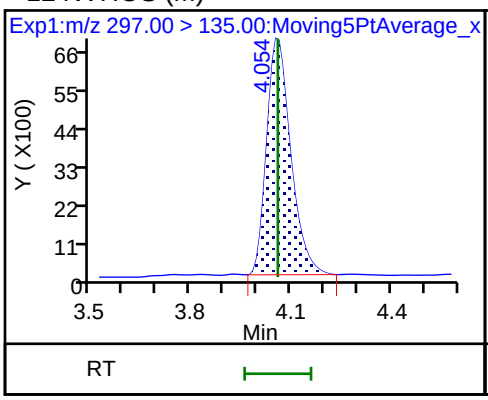
10 PMPA (M)



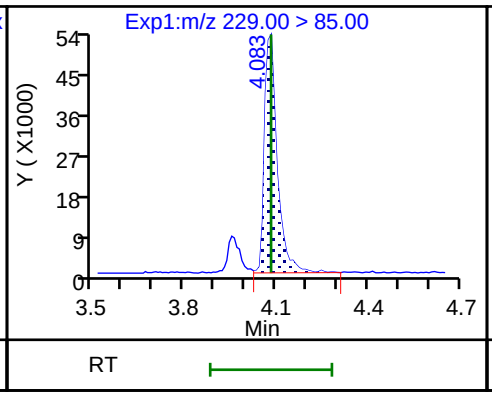
11 PFPrS



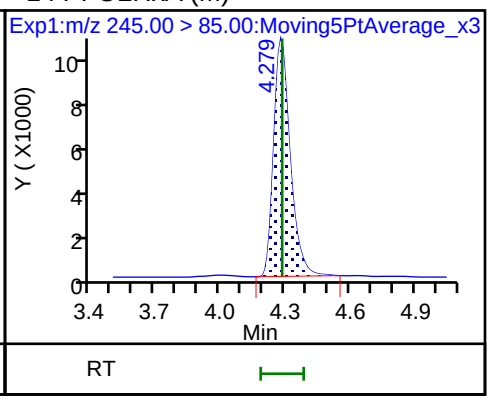
12 NVHOS (M)



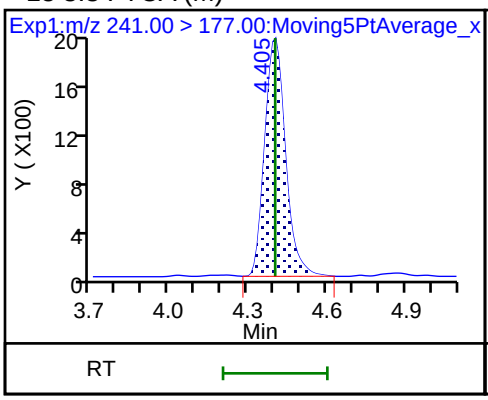
13 PFECA F



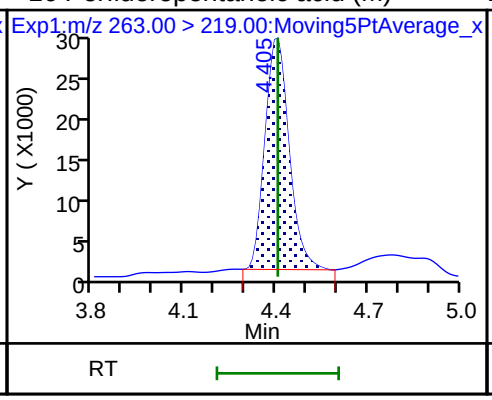
14 PFO2HxA (M)



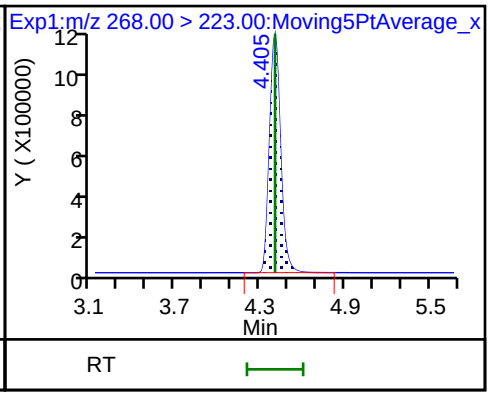
15 3:3 FTCA (M)



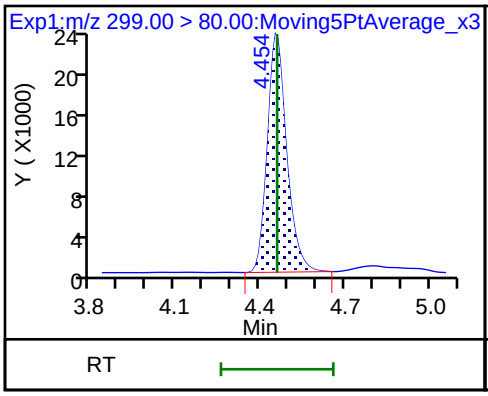
16 Perfluoropentanoic acid (M)



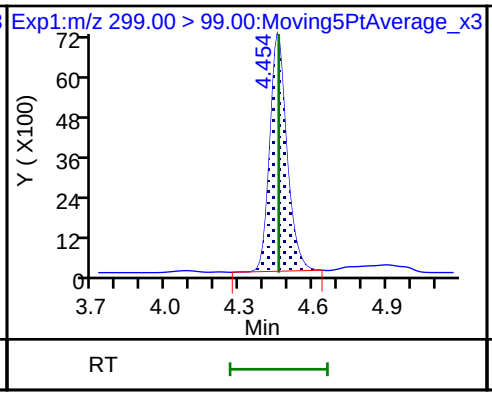
D 17 13C5 PFPeA



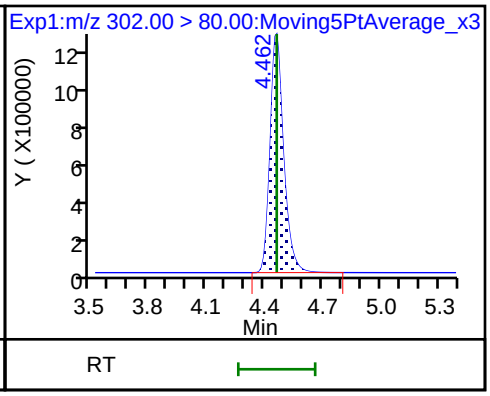
18 Perfluorobutanesulfonic acid



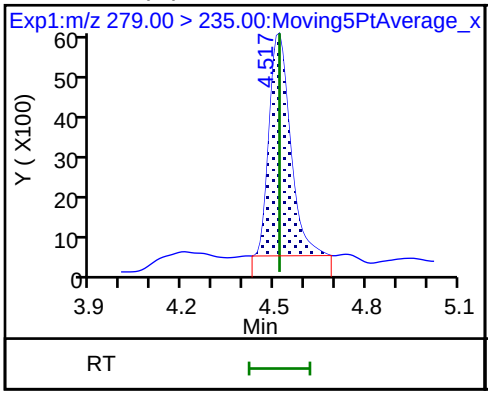
18 Perfluorobutanesulfonic acid



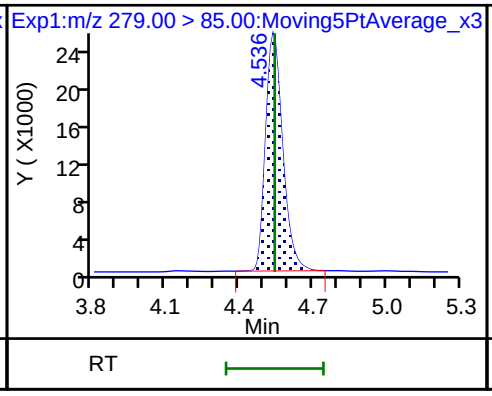
D 19 13C3 PFBS



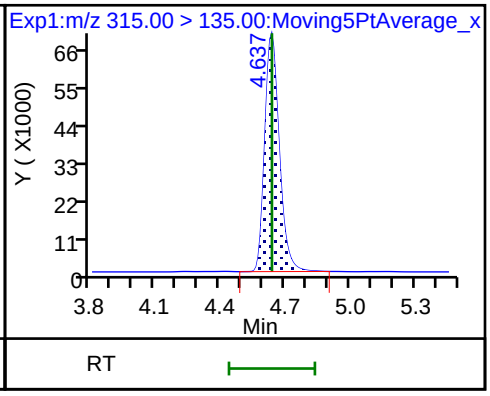
20 PEPA (M)



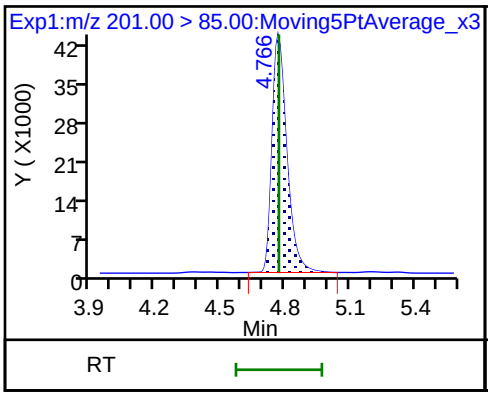
21 PFECA A



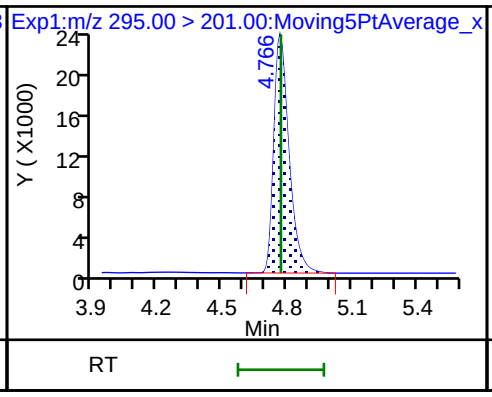
22 PES



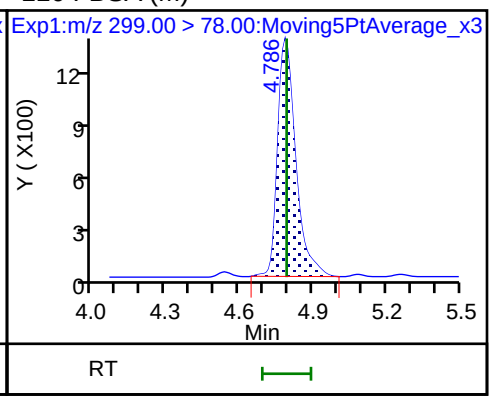
23 PFECA B



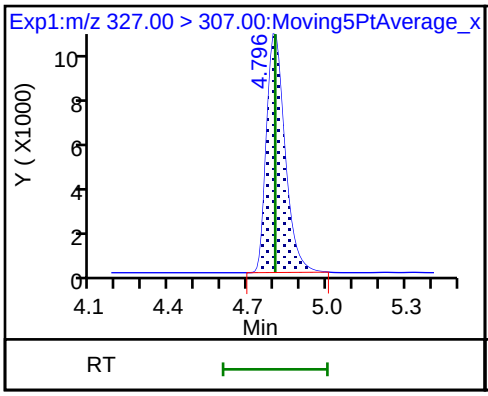
23 PFECA B



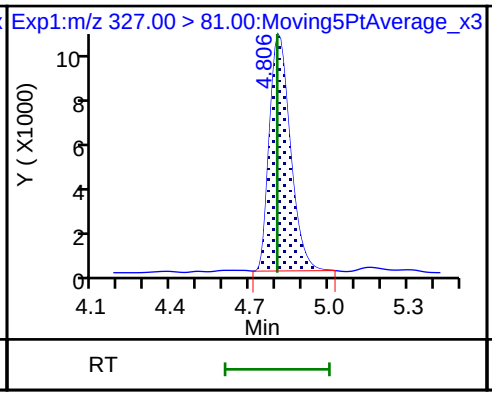
110 FBSA (M)



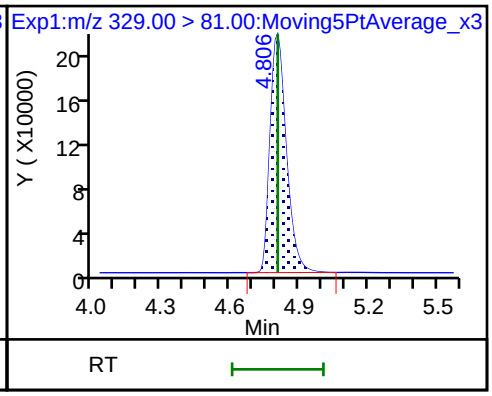
24 4:2 FTS



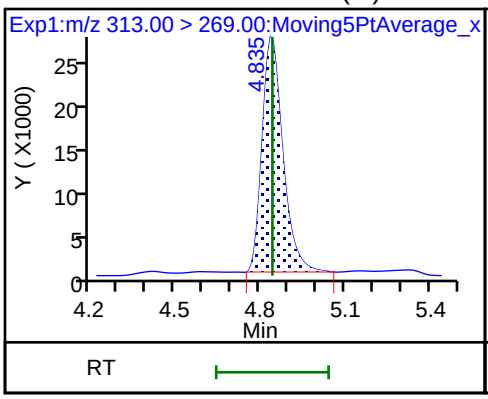
24 4:2 FTS



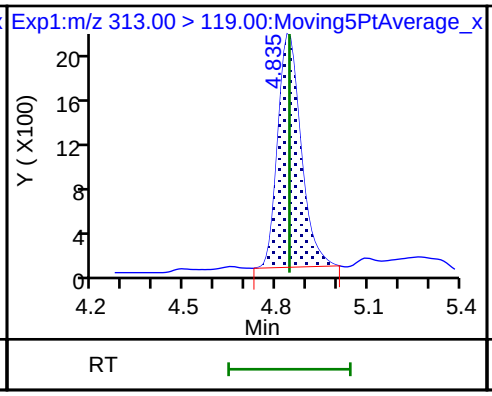
D 25 M2-4:2 FTS



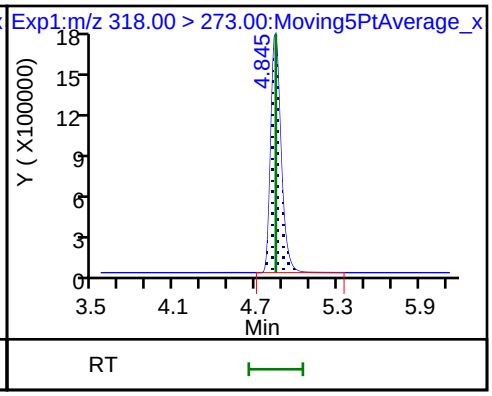
26 Perfluorohexanoic acid (M)



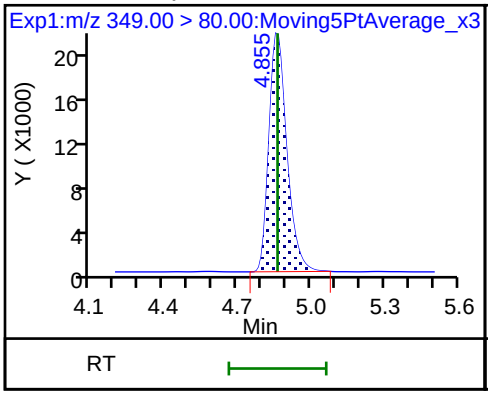
26 Perfluorohexanoic acid



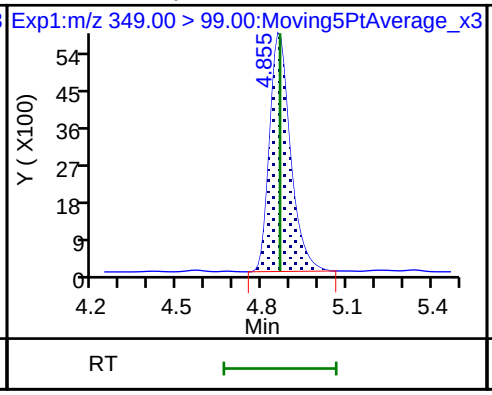
D 27 13C5 PFHxA



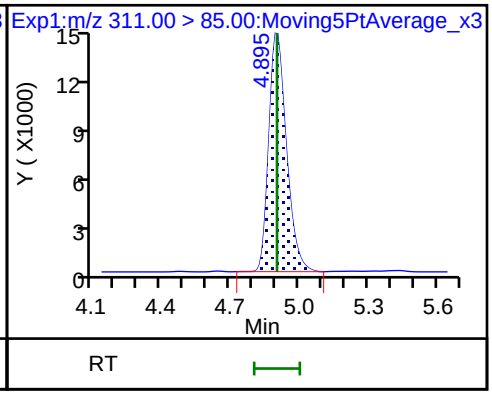
28 Perfluoropentanesulfonic acid



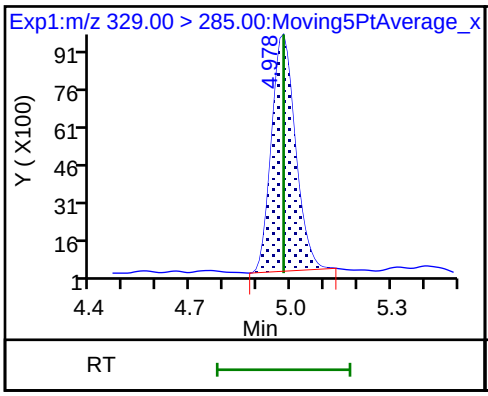
28 Perfluoropentanesulfonic acid



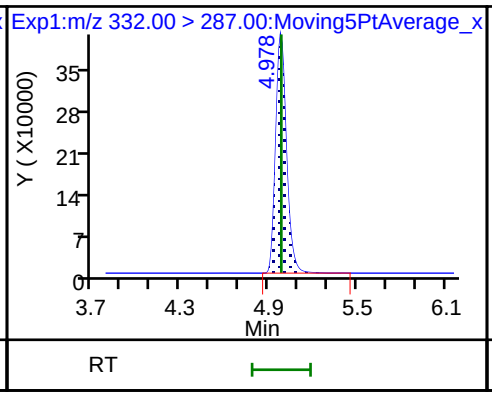
29 PFO3OA



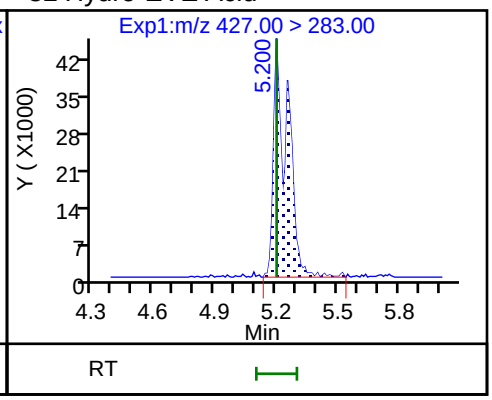
30 HFPO-DA



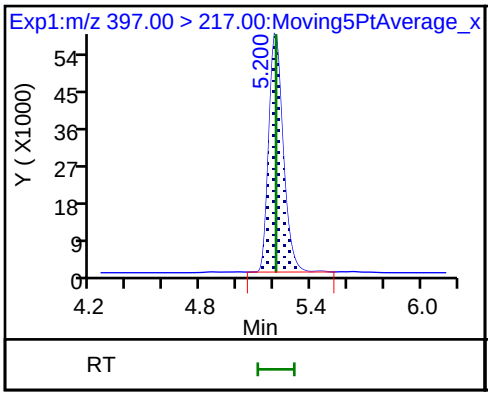
D 31 13C3 HFPO-DA



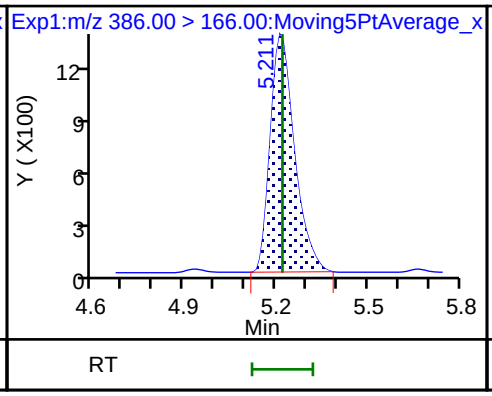
32 Hydro-EVE Acid



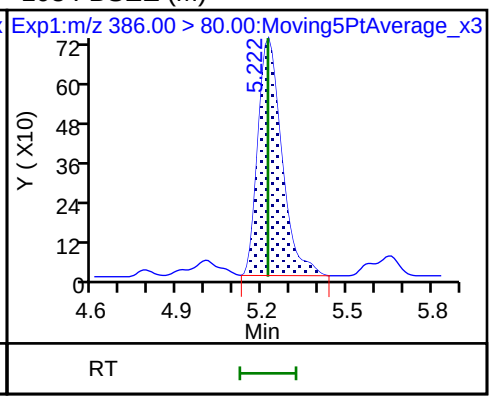
33 R-PSDCA



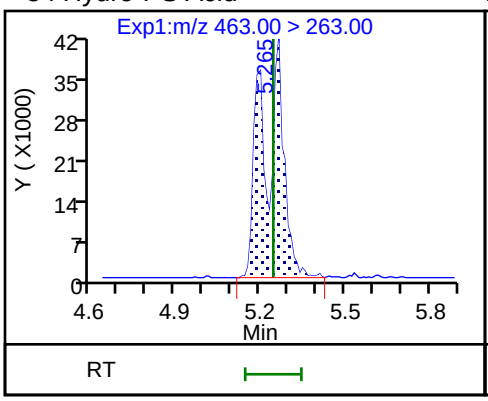
108 FBSEE



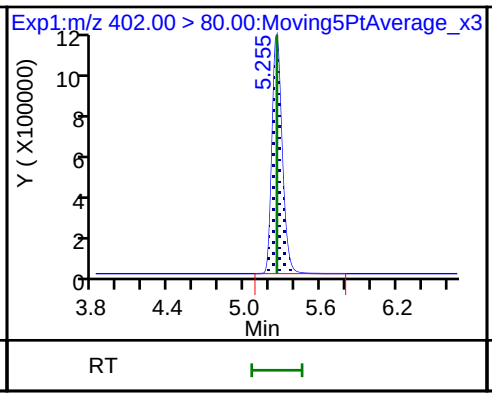
108 FBSEE (M)



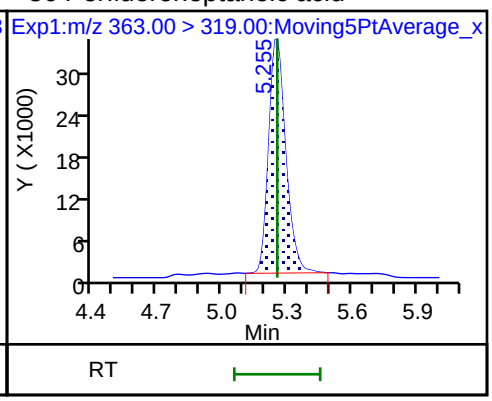
34 Hydro-PS Acid



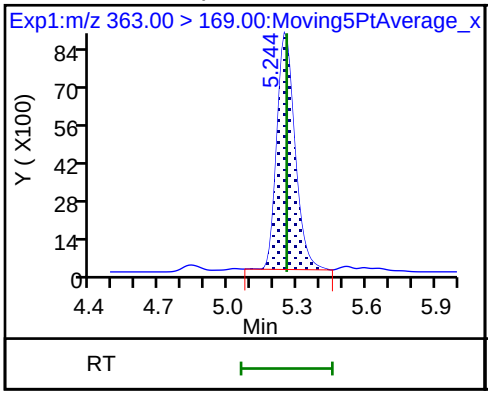
D 37 13C3 PFHxS



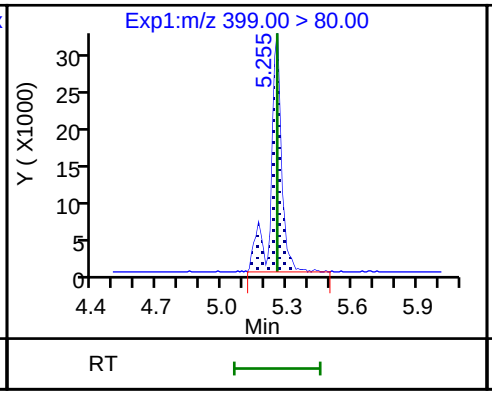
36 Perfluoroheptanoic acid



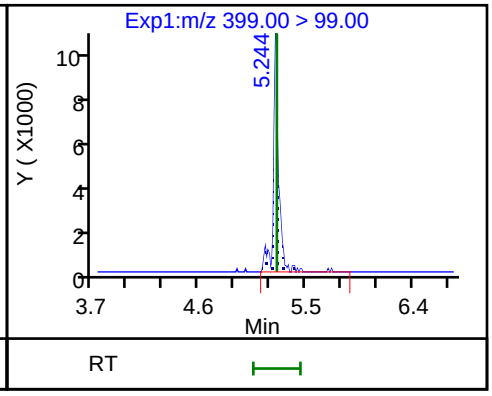
36 Perfluoroheptanoic acid



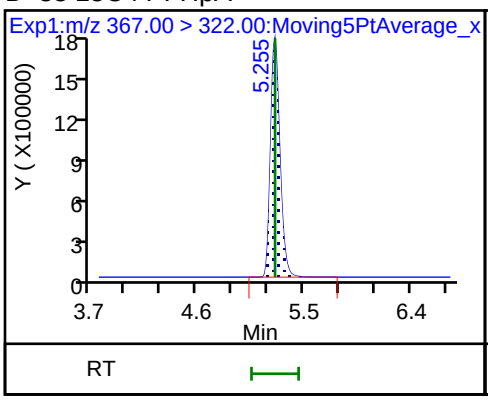
35 Perfluorohexanesulfonic acid



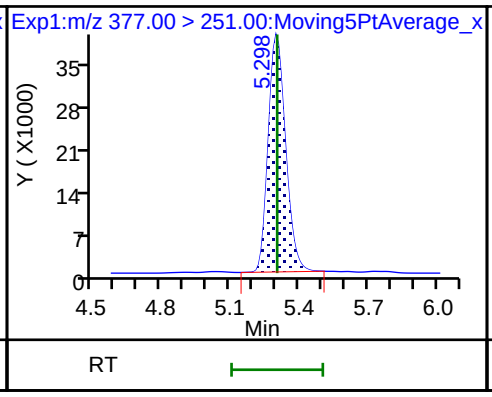
35 Perfluorohexanesulfonic acid



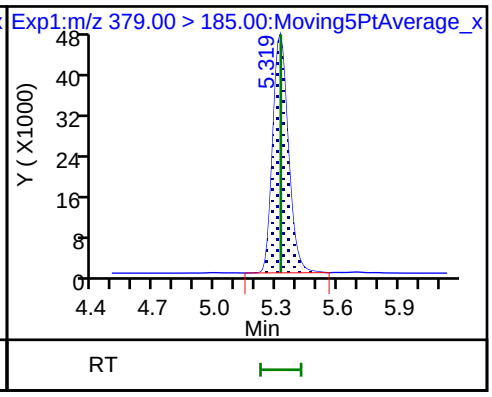
D 38 13C4 PFHpA



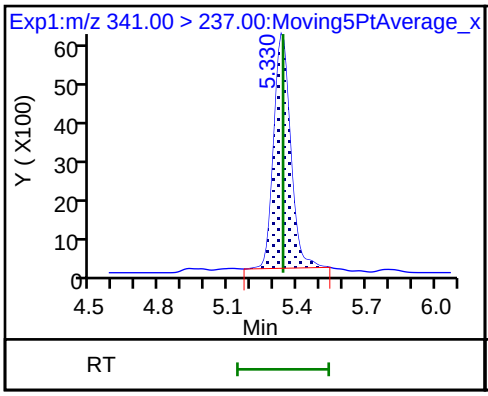
39 DONA



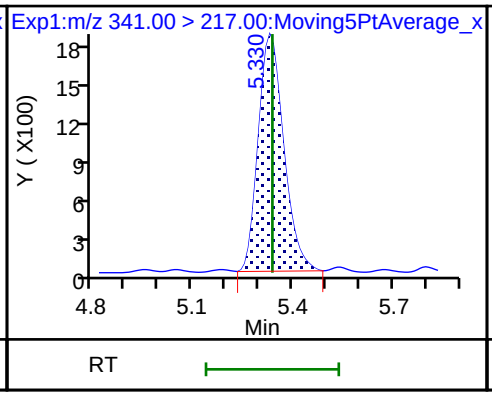
40 PFECA G



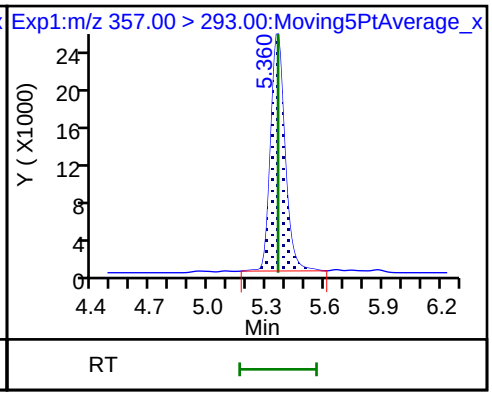
41 5:3 FTCA



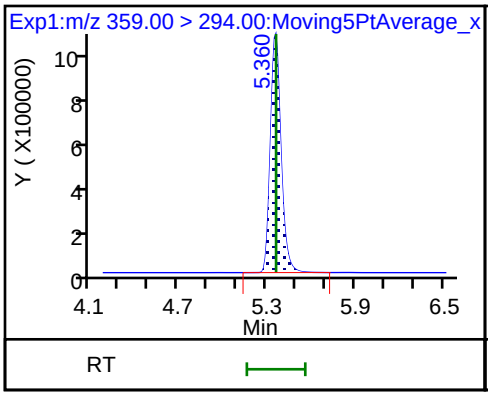
41 5:3 FTCA



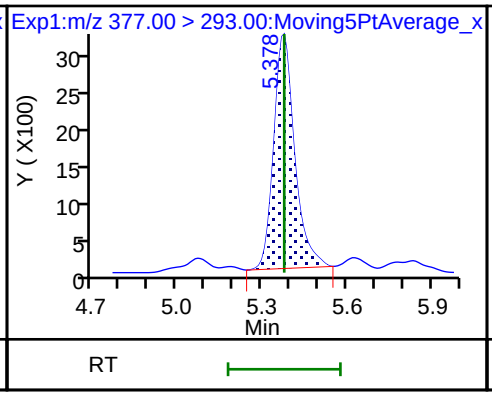
42 6:2 FTUCA



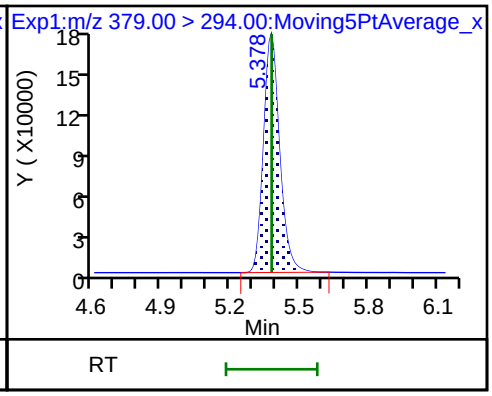
D 43 13C-6:2 FTUCA



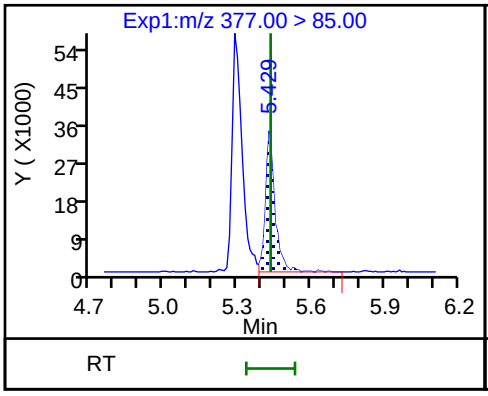
44 6:2 FTCA



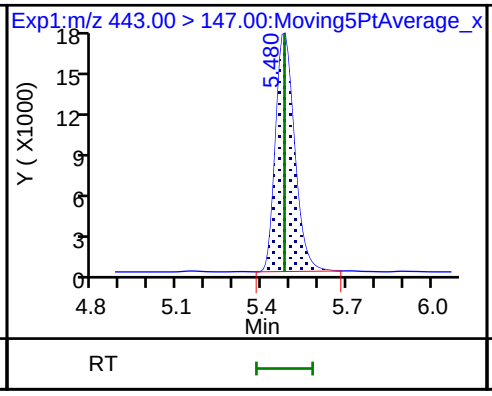
D 45 13C-6:2 FTCA



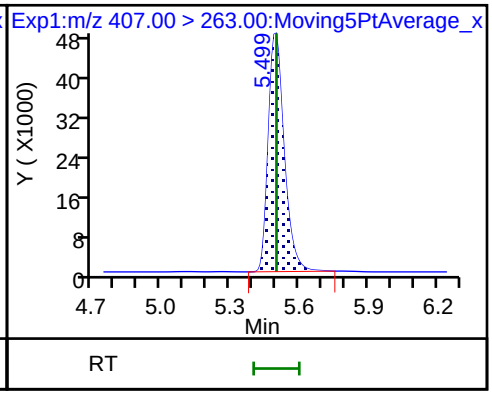
46 PFO4DA



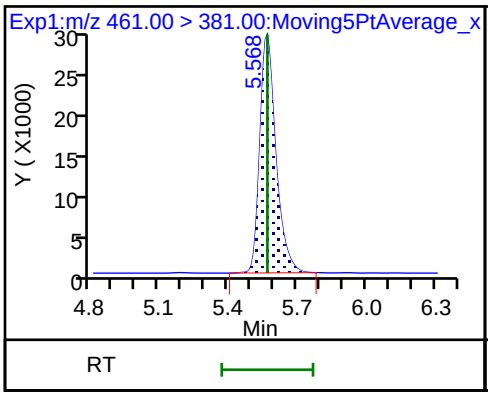
47 PS Acid



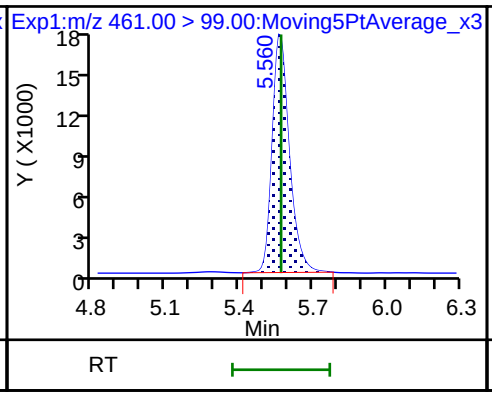
48 EVE Acid



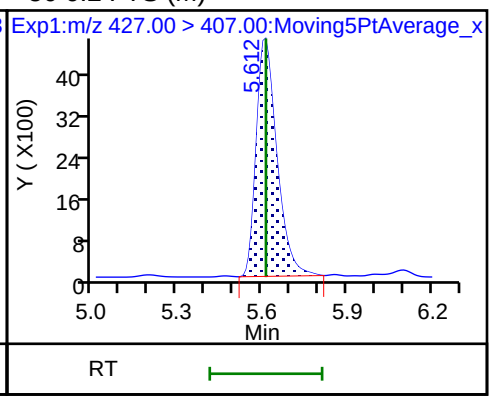
49 PFECHS



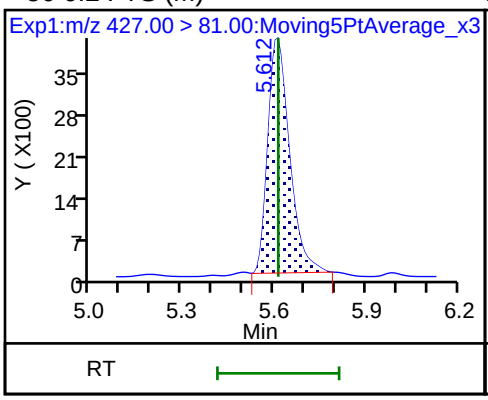
49 PFECHS



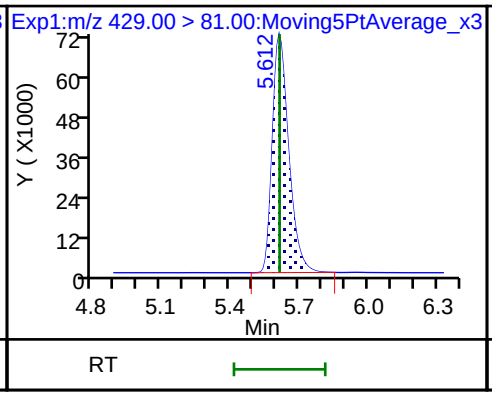
50 6:2 FTS (M)



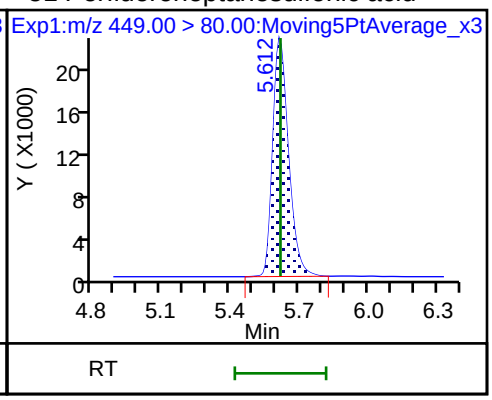
50 6:2 FTS (M)



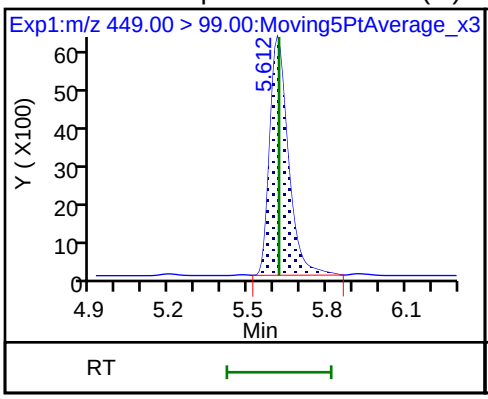
D 52 M2-6:2 FTS



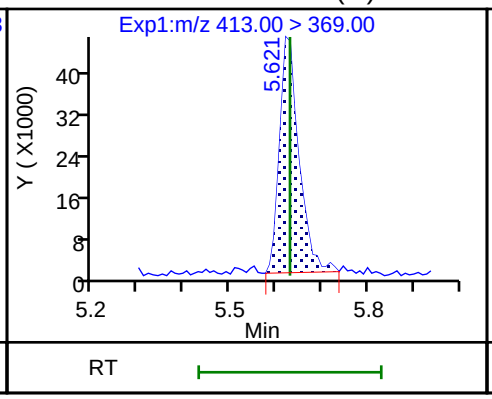
51 Perfluoroheptanesulfonic acid



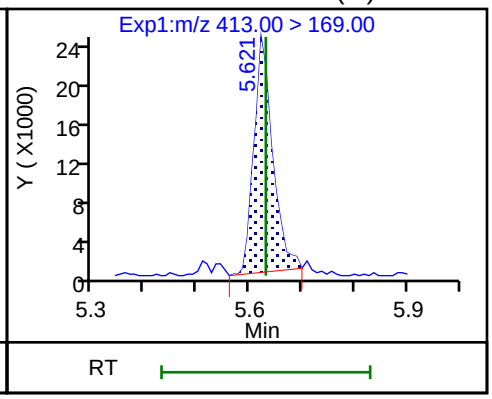
51 Perfluoroheptanesulfonic acid (M)



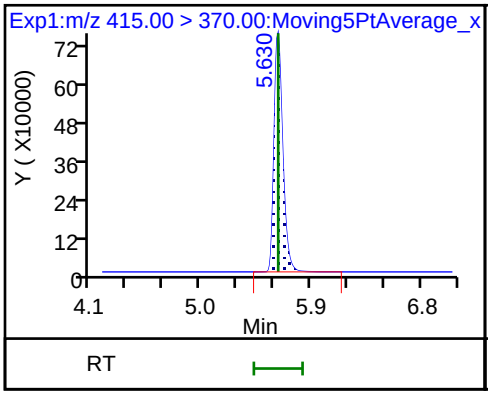
53 Perfluorooctanoic acid (M)



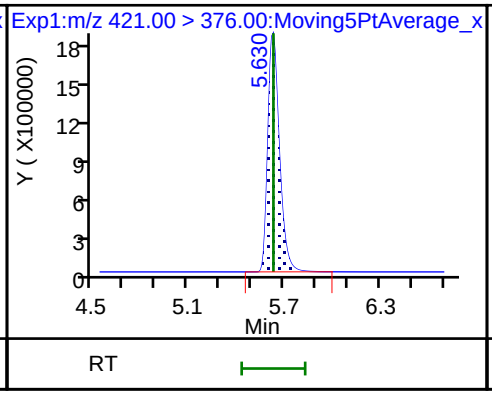
53 Perfluorooctanoic acid (M)



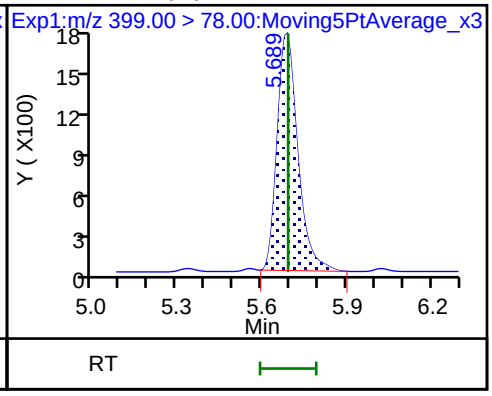
* 55 13C2 PFOA



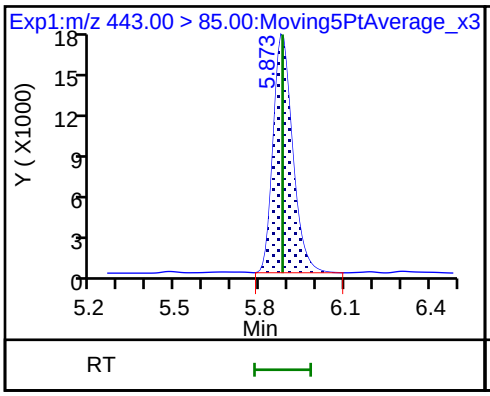
D 54 13C8 PFOA



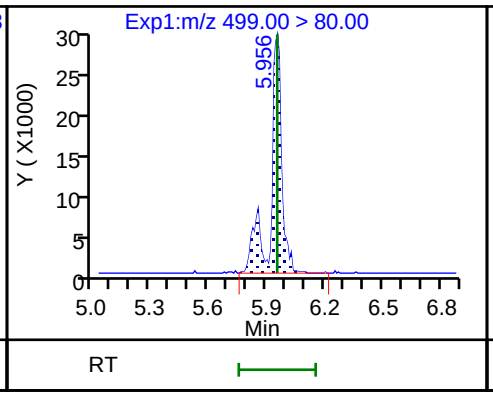
106 FHxSA (M)



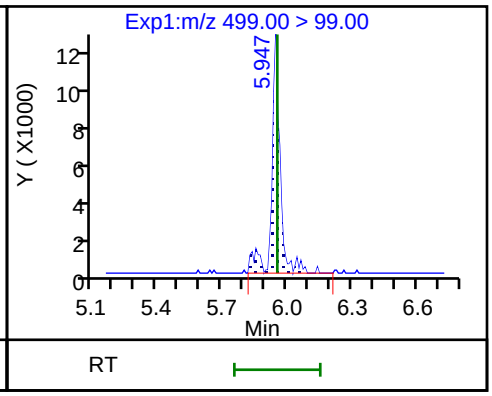
56 TAF



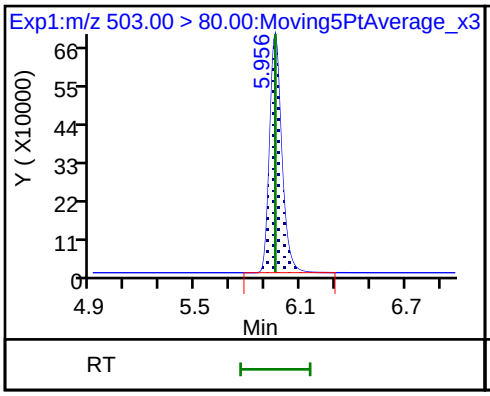
57 Perfluorooctanesulfonic acid



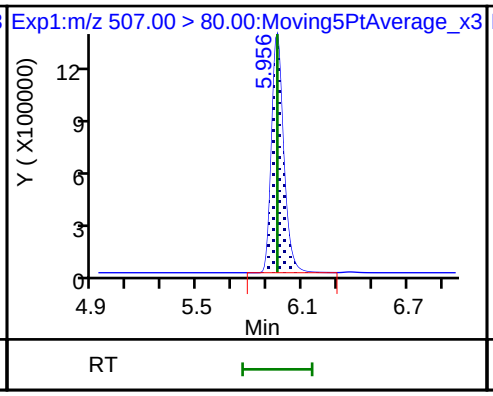
57 Perfluorooctanesulfonic acid



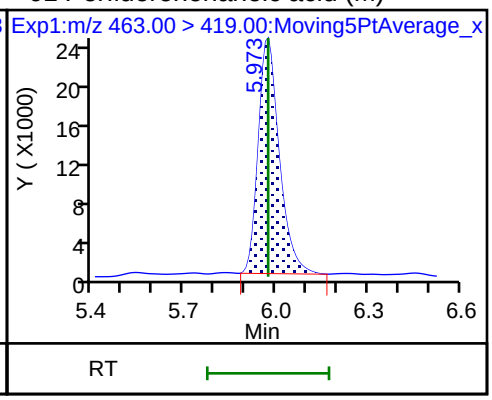
* 59 13C4 PFOS



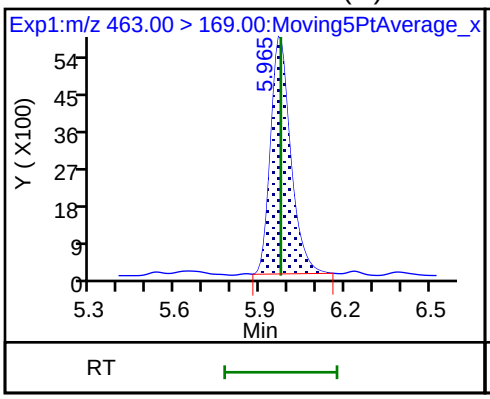
D 58 13C8 PFOS



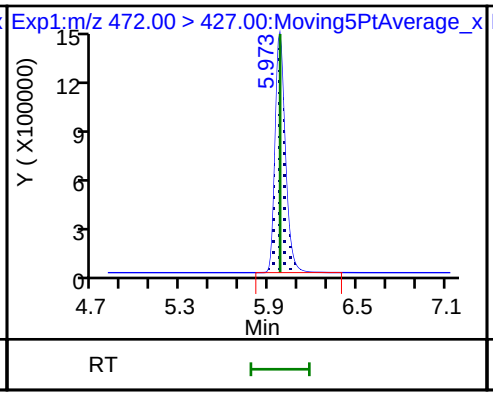
61 Perfluorononanoic acid (M)



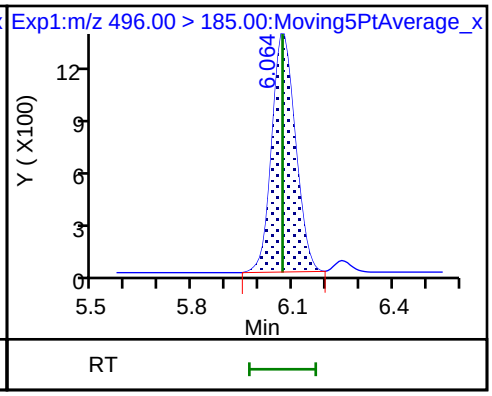
61 Perfluorononanoic acid (M)



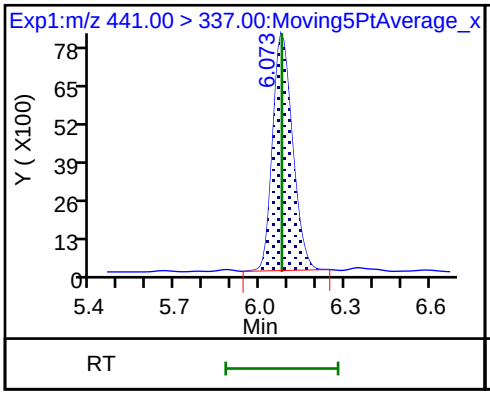
D 60 13C9 PFNA



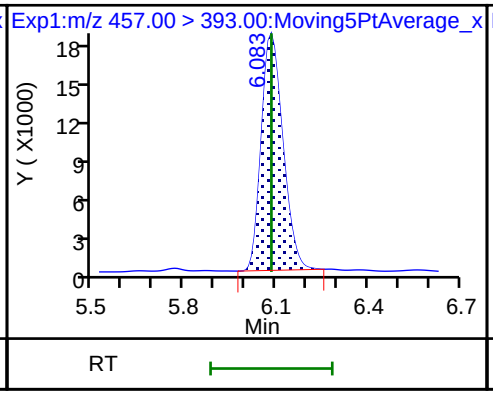
109 HFPO-TrA



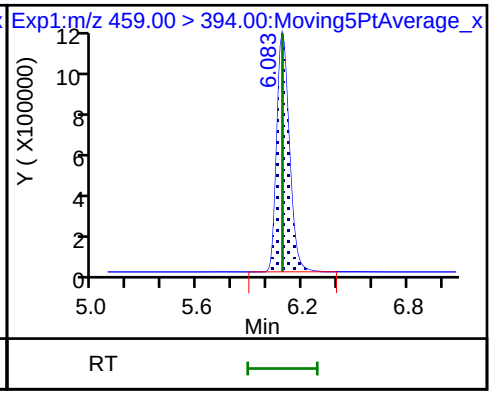
62 7:3 FTCA



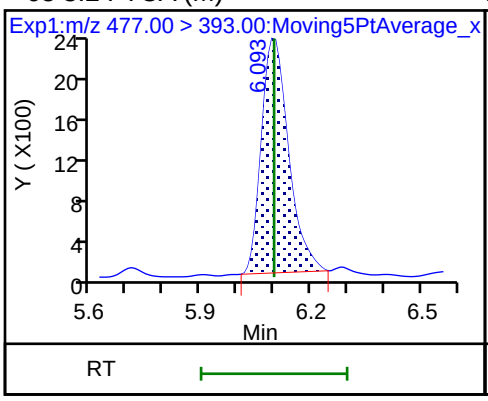
63 8:2 FTUCA



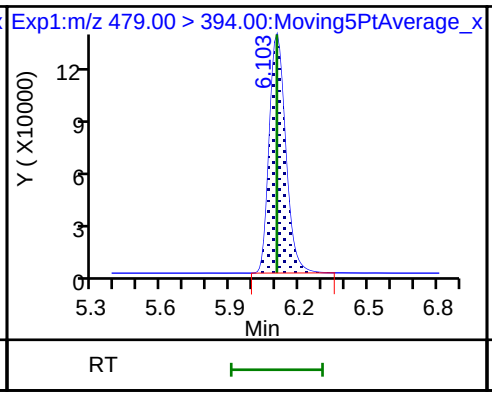
D 64 13C-8:2 FTUCA



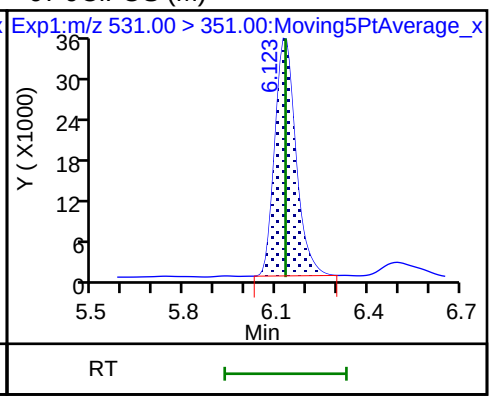
65 8:2 FTCA (M)



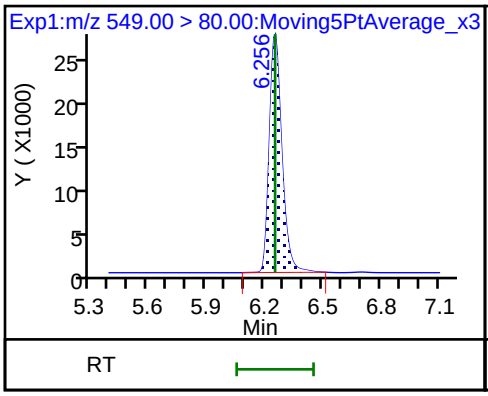
D 66 13C-8:2 FTCA



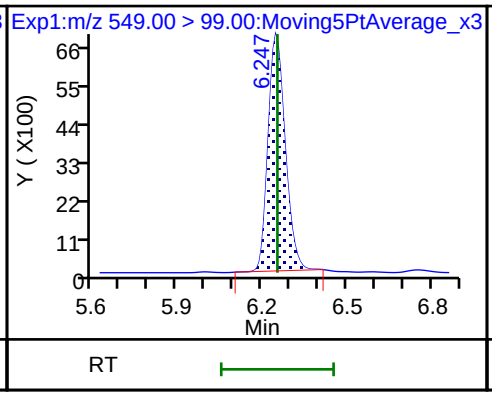
67 9ClFOS (M)



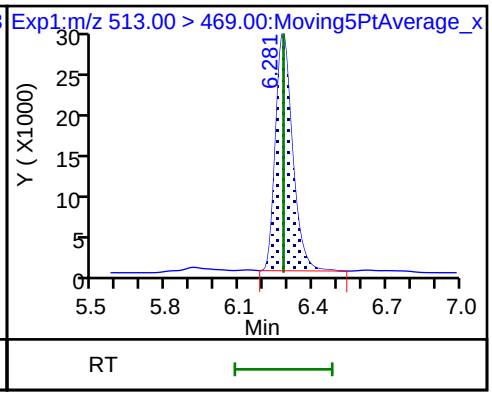
68 Perfluorononanesulfonic acid



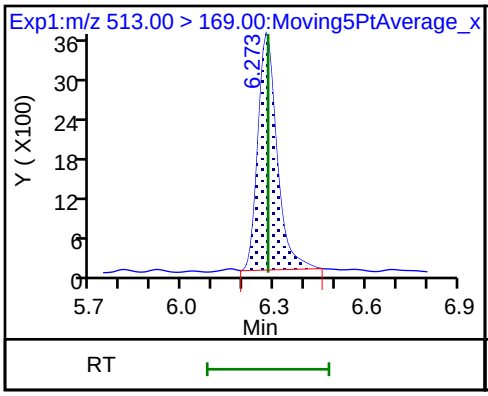
68 Perfluorononanesulfonic acid



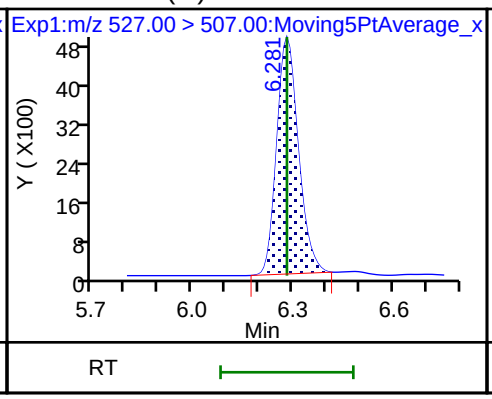
69 Perfluorodecanoic acid



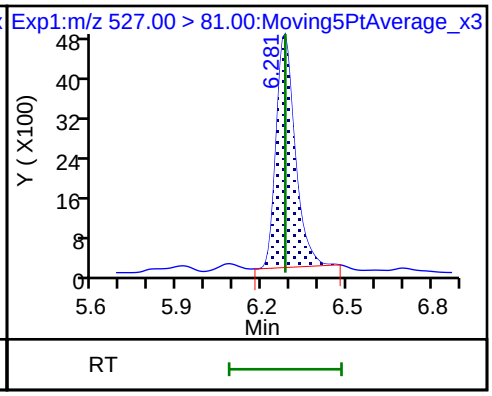
69 Perfluorodecanoic acid



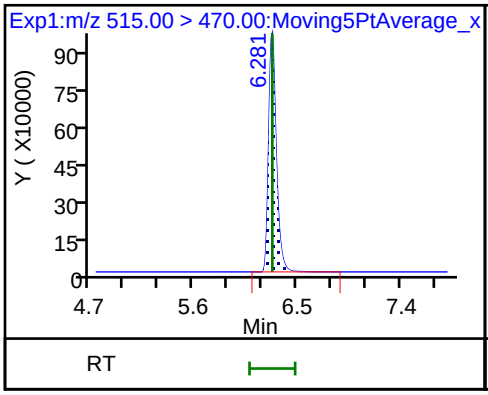
72 8:2 FTS (M)



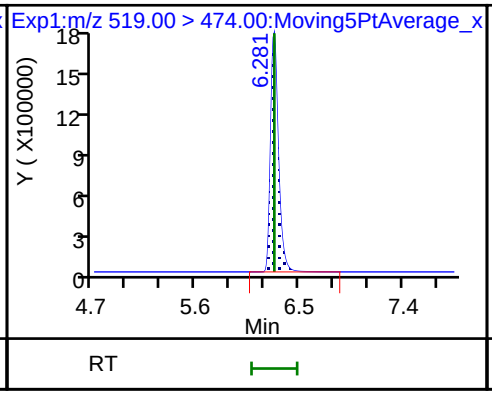
72 8:2 FTS



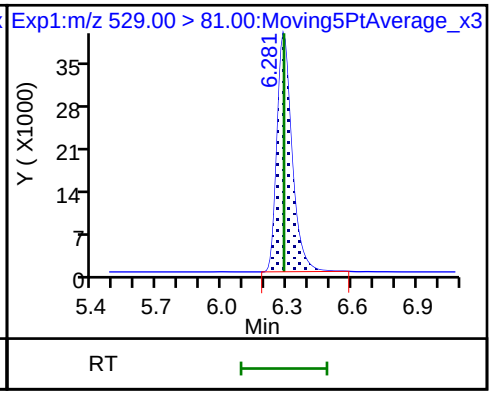
* 70 13C2 PFDA



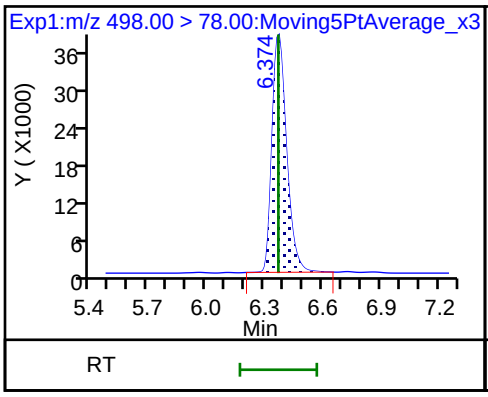
D 71 13C6 PFDA



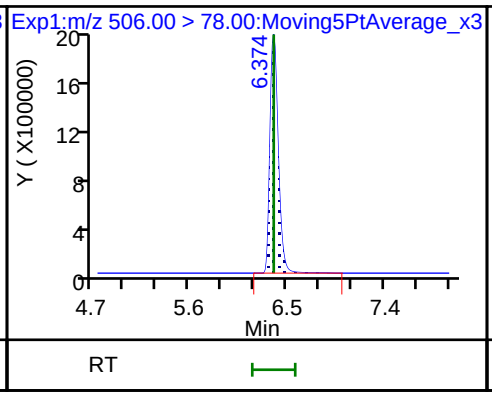
D 73 M2-8:2 FTS



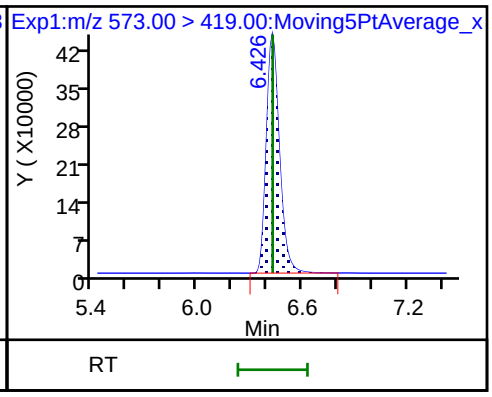
75 Perfluorooctanesulfonamide



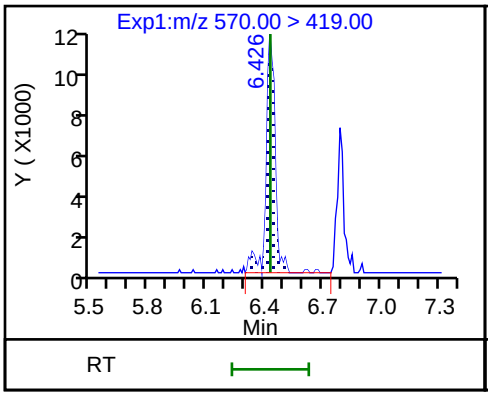
D 74 13C8 FOSA



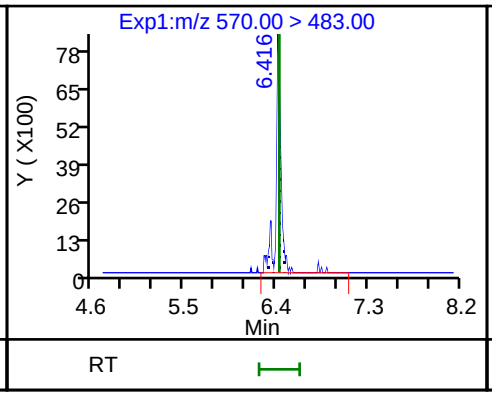
D 77 d3-NMeFOSAA



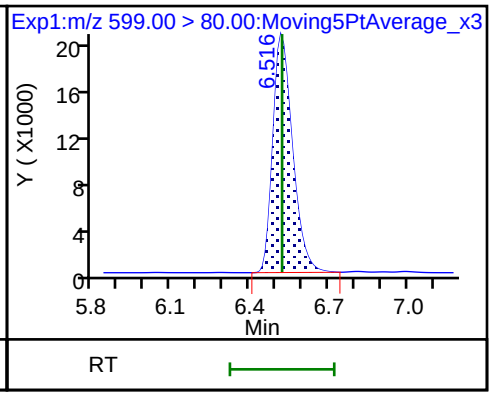
76 NMeFOSAA



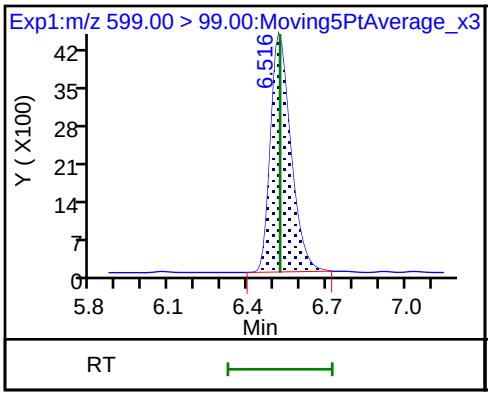
76 NMeFOSAA



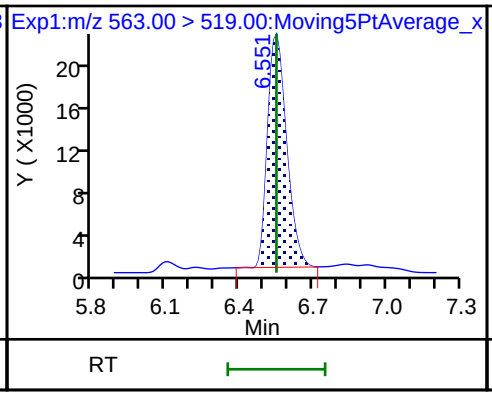
78 Perfluorodecanesulfonic acid



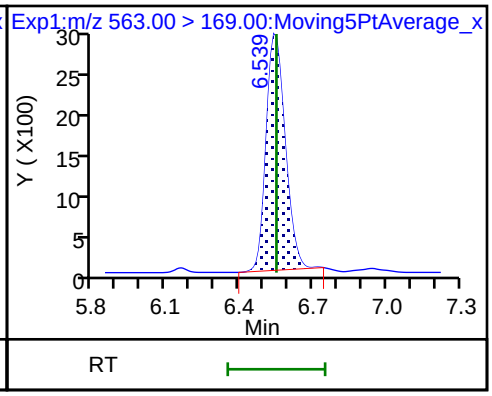
78 Perfluorodecanesulfonic acid



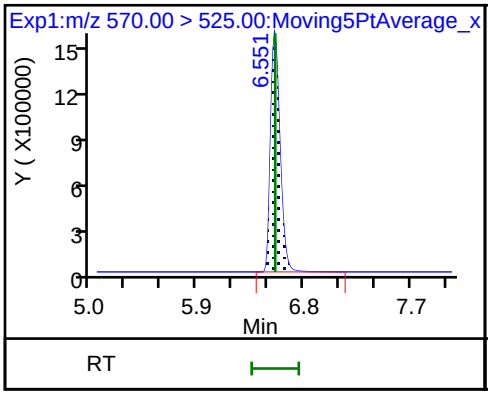
79 Perfluoroundecanoic acid



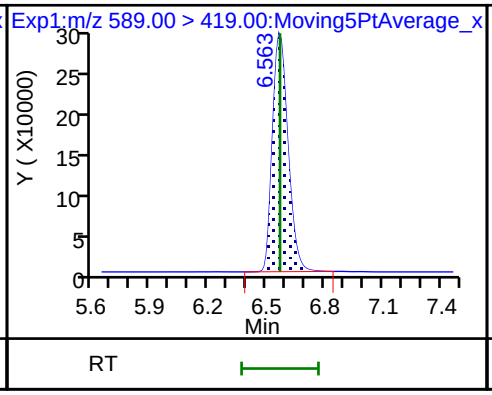
79 Perfluoroundecanoic acid



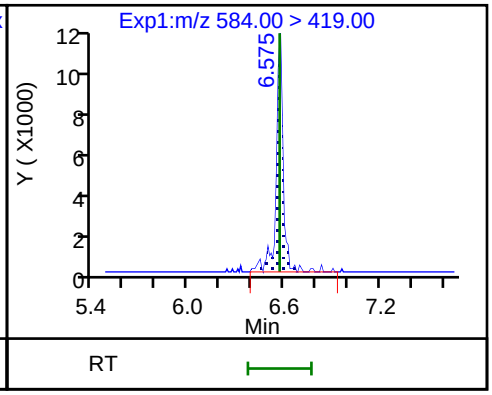
D 80 13C7 PFUnA



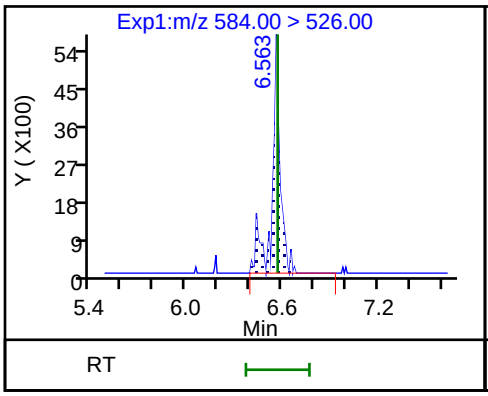
D 81 d5-NEtFOSAA



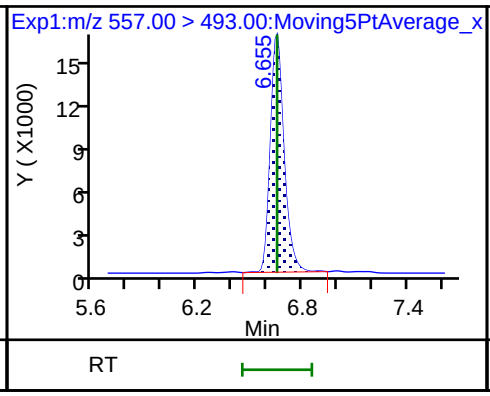
82 NEtFOSAA



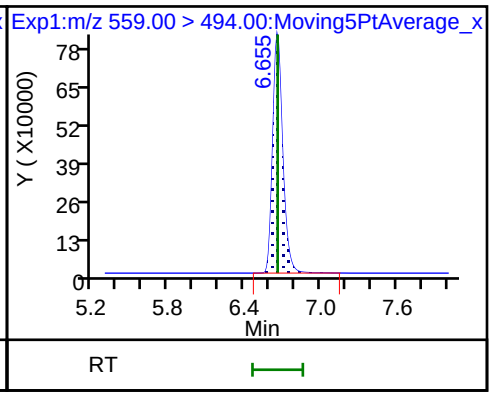
82 NEtFOSAA



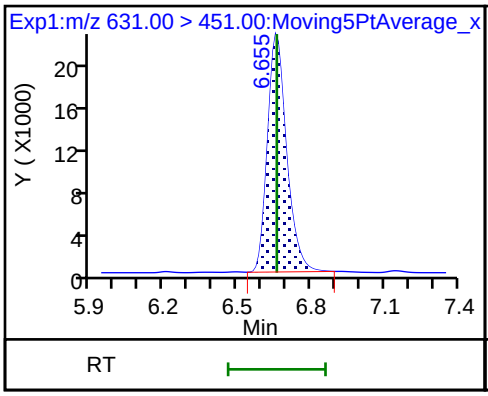
83 10:2 FTUCA



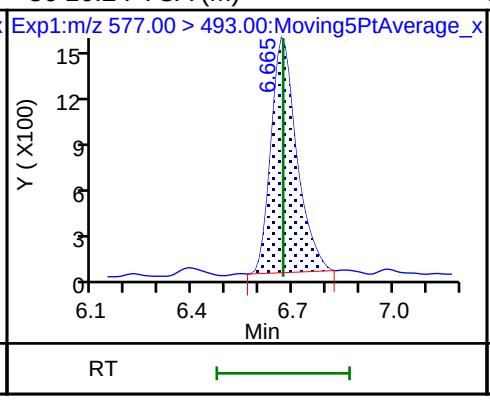
D 85 13C-10:2 FTUCA



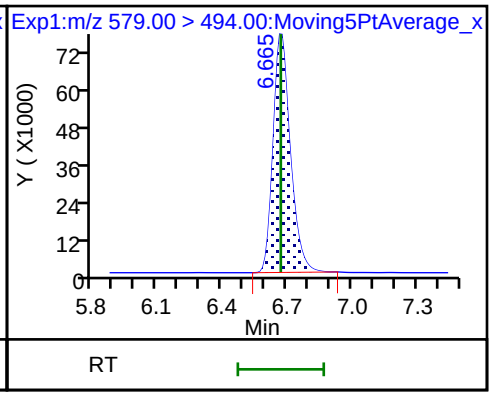
84 11ClFOS



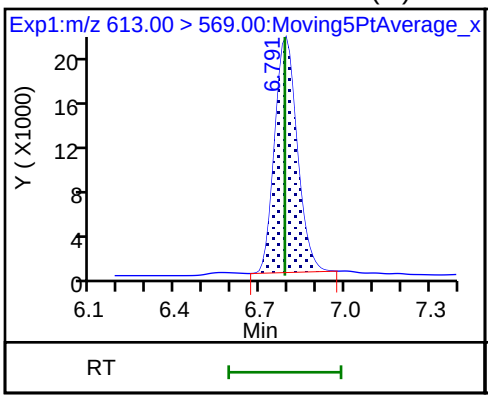
86 10:2 FTCA (M)



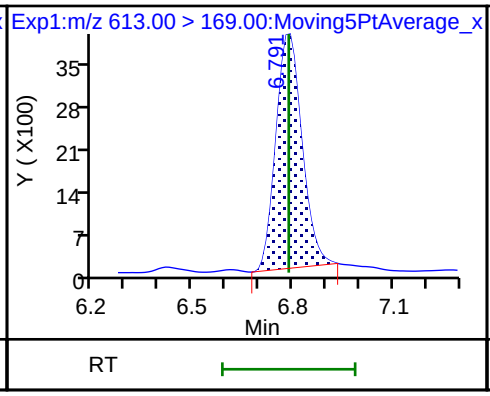
D 87 13C-10:2 FTCA



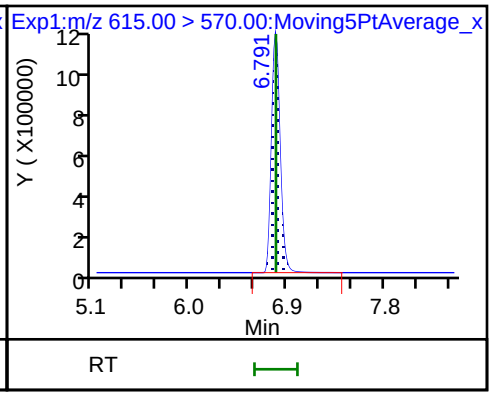
88 Perfluorododecanoic acid (M)



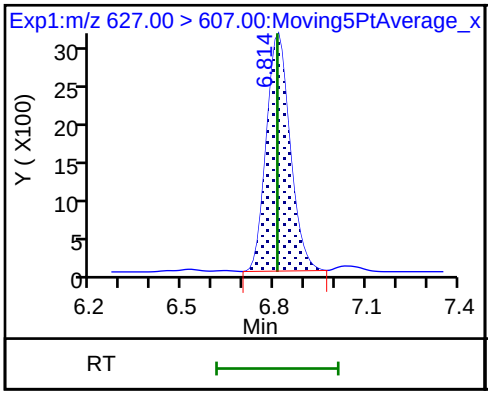
88 Perfluorododecanoic acid



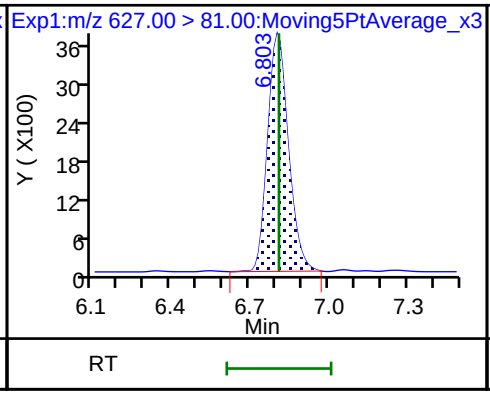
D 89 13C2-PFDoDA



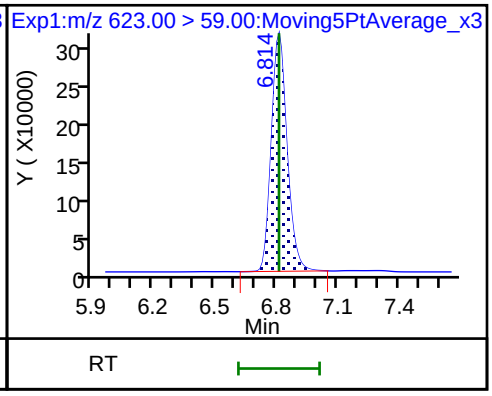
90 10:2 FTS



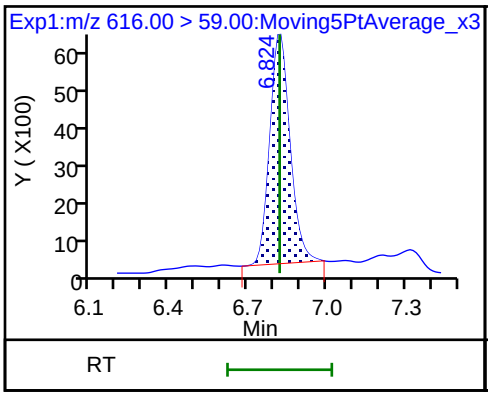
90 10:2 FTS



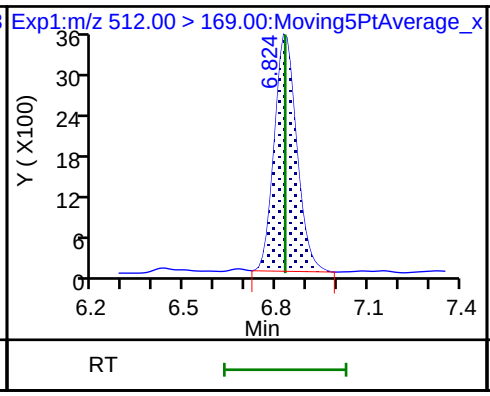
D 91 d7-N-MeFOSE-M



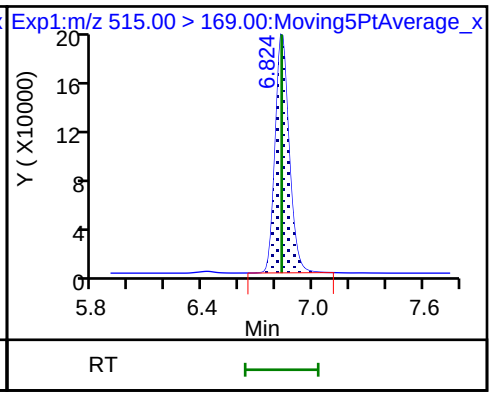
92 N-MeFOSE-M



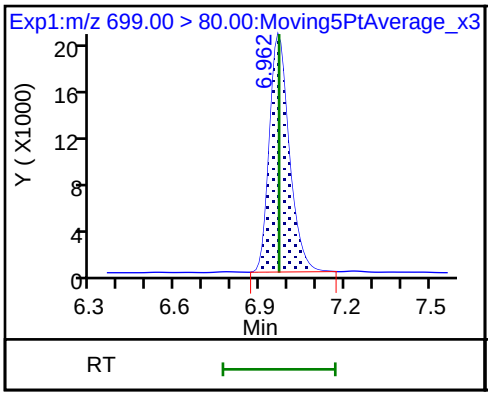
94 NMeFOSA



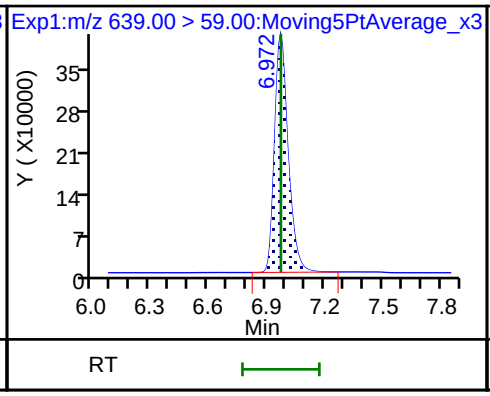
D 93 d3-NMePFOSA



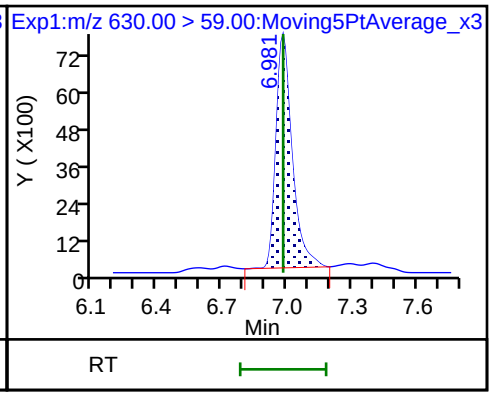
95 PFDoS



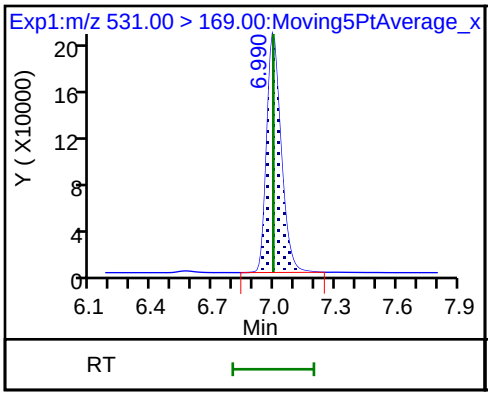
D 96 d9-N-EtFOSE-M



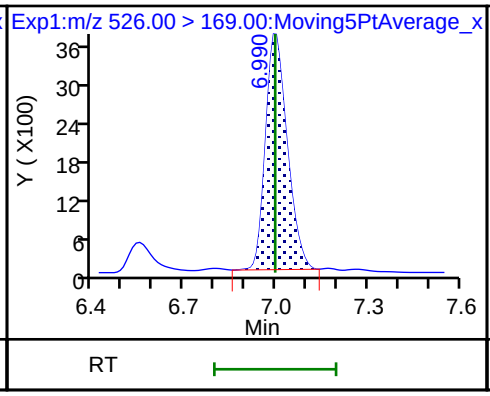
97 N-EtFOSE-M



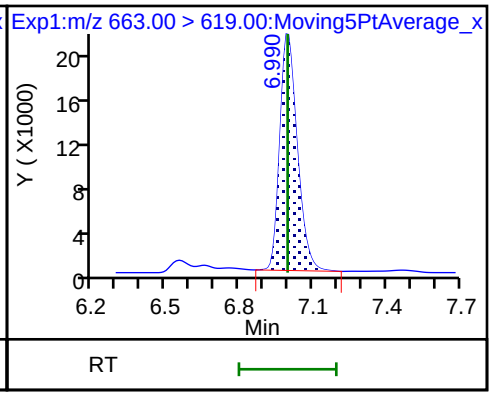
D 98 d5-NEtPFOSA



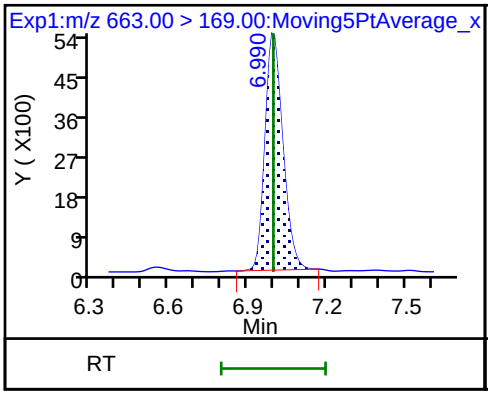
100 N-EtFOSA-M



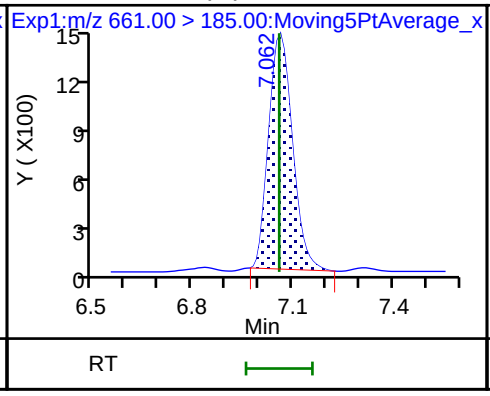
99 Perfluorotridecanoic acid



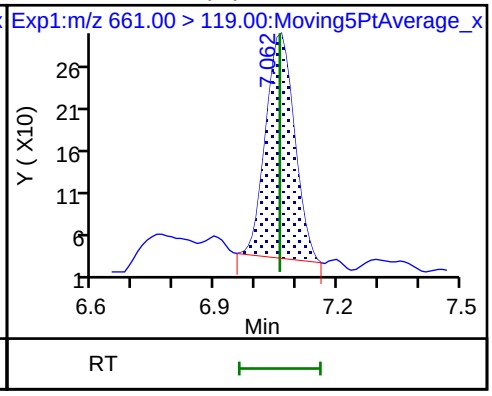
99 Perfluorotridecanoic acid



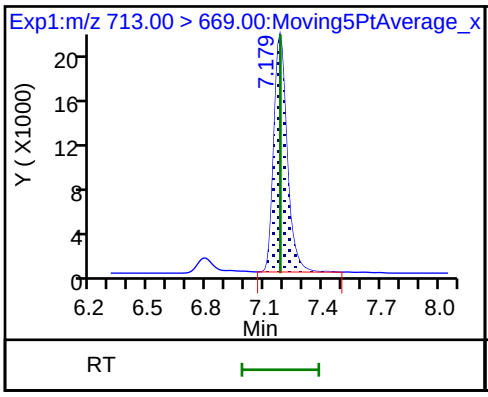
105 HFPOTeA (M)



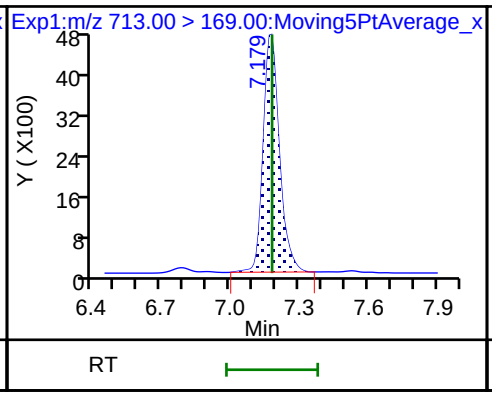
105 HFPOTeA (M)



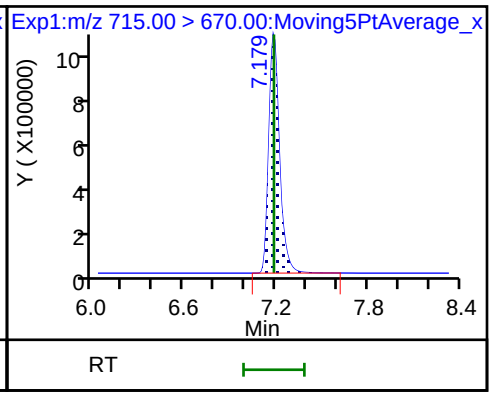
101 Perfluorotetradecanoic acid



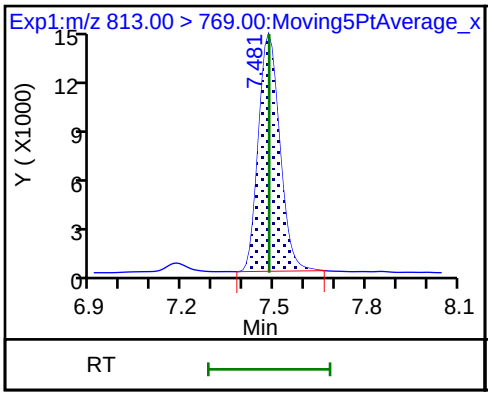
101 Perfluorotetradecanoic acid



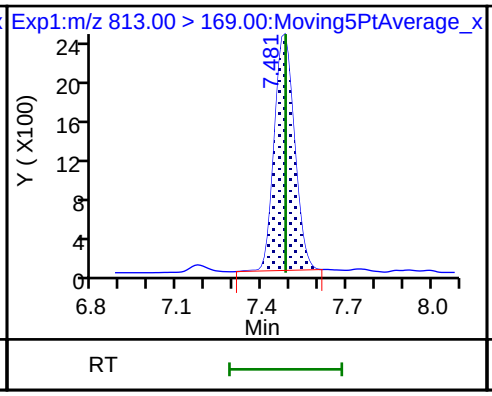
D 102 13C2 PFTeDA



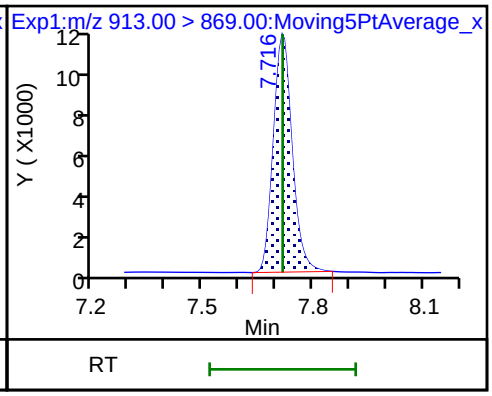
103 Perfluorohexadecanoic acid



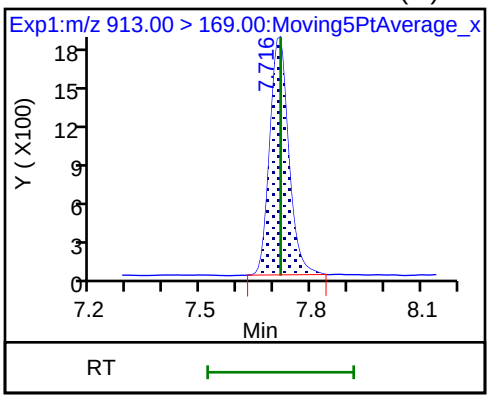
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

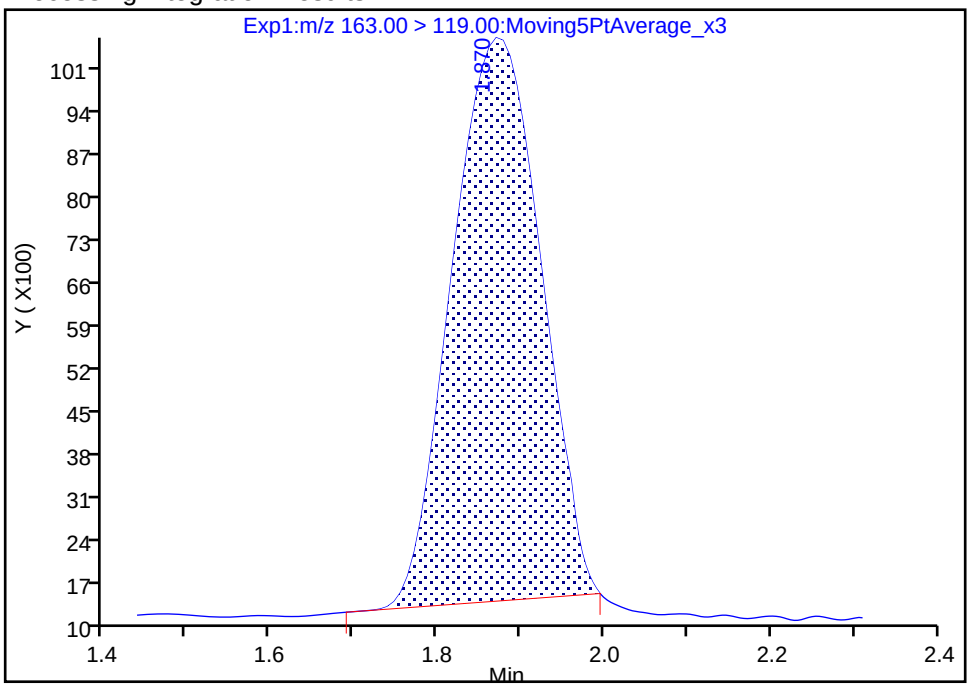
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

2 PPF Acid, CAS: 422-64-0

Signal: 1

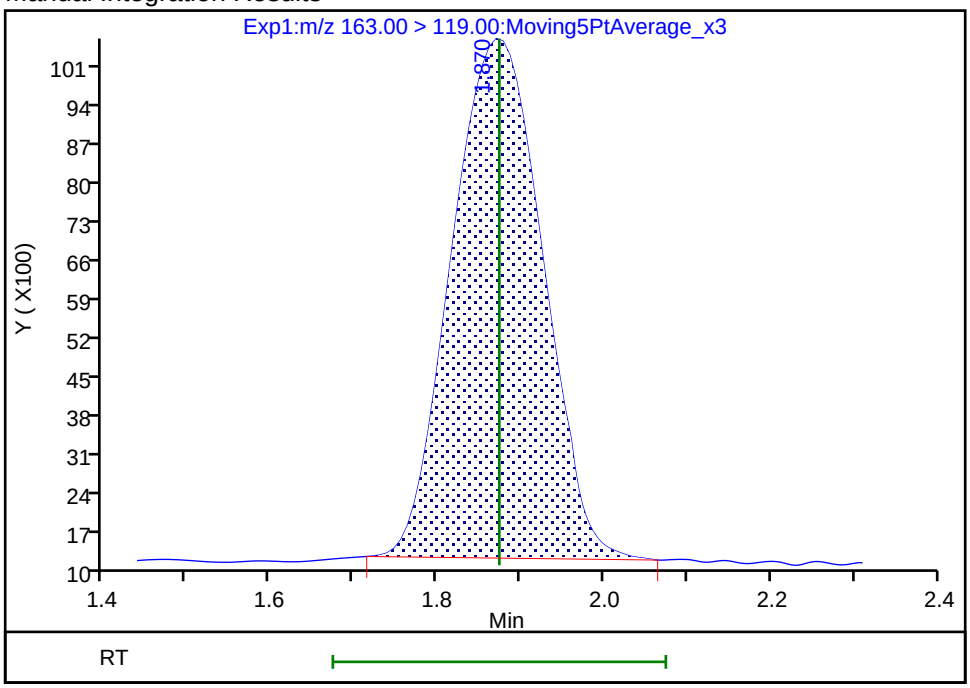
Processing Integration Results

RT: 1.87
Area: 68408
Amount: 0.177820
Amount Units: ng/ml



Manual Integration Results

RT: 1.87
Area: 71639
Amount: 0.183968
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:14:40

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

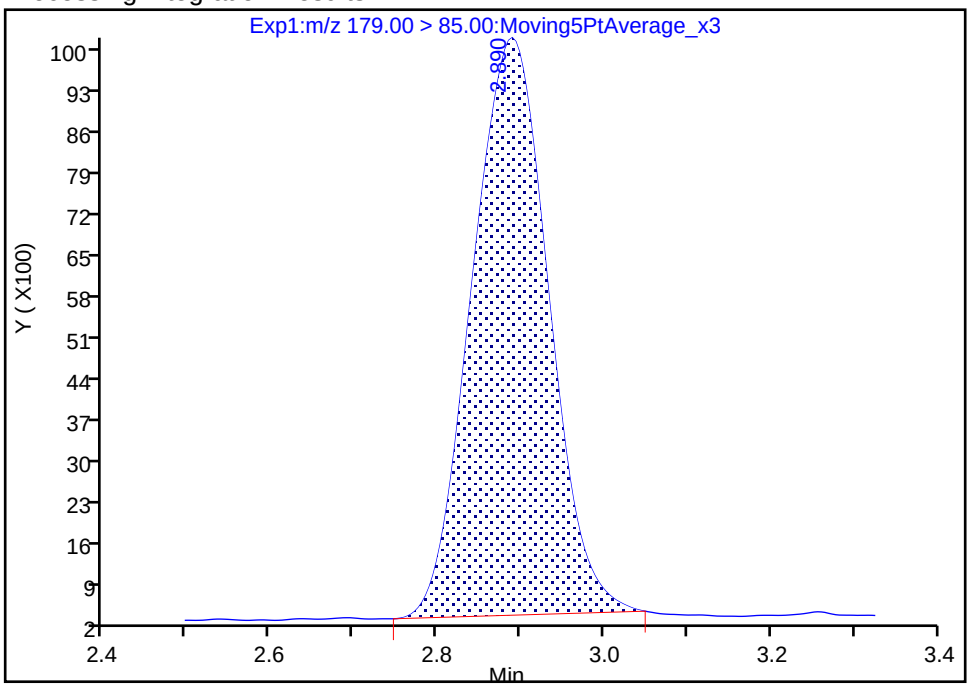
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

3 PFMOAA, CAS: 674-13-5

Signal: 1

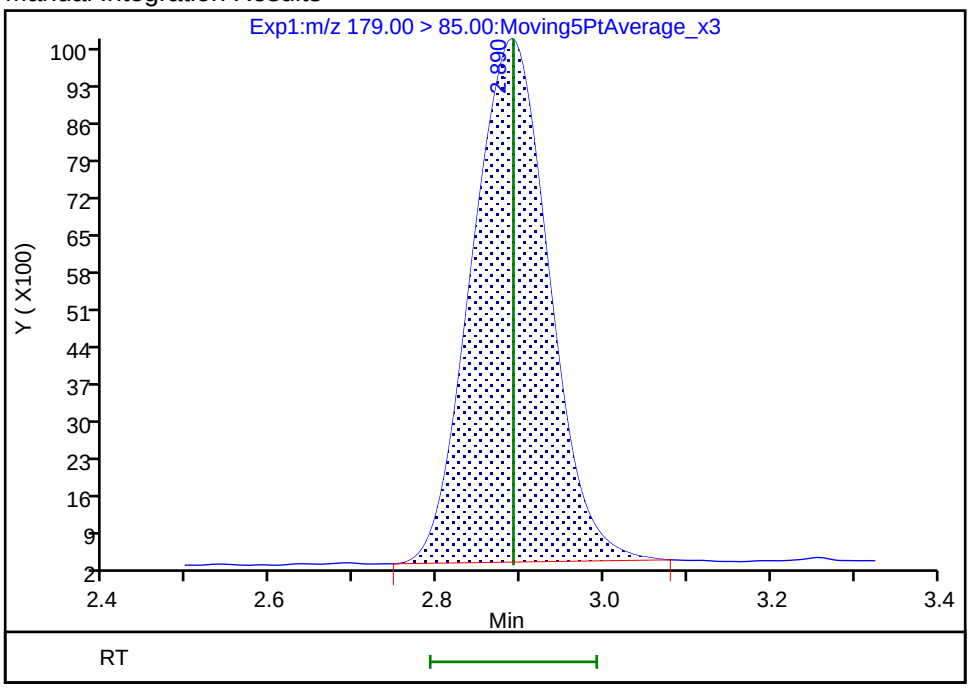
Processing Integration Results

RT: 2.89
Area: 62614
Amount: 0.188543
Amount Units: ng/ml



Manual Integration Results

RT: 2.89
Area: 63211
Amount: 0.190097
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:14:46

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

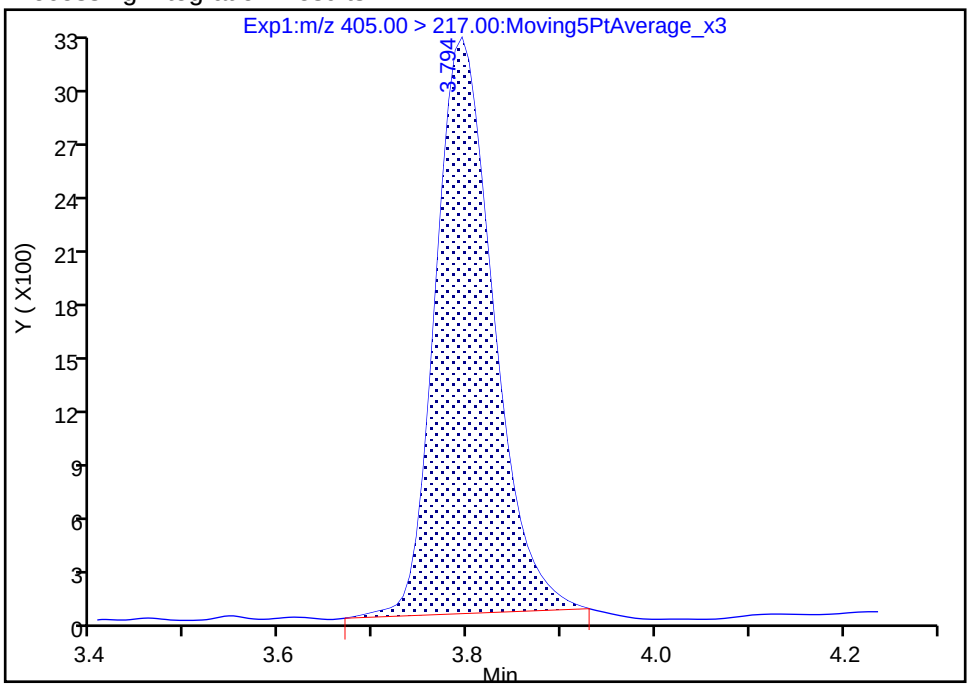
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

5 R-EVE, CAS: 2416366-22-6

Signal: 1

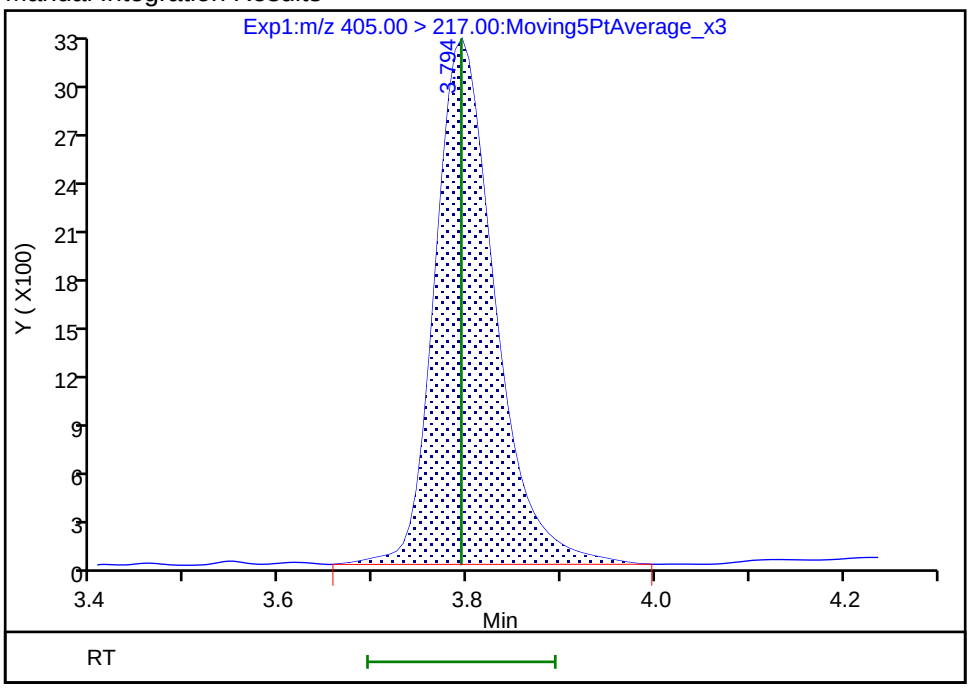
Processing Integration Results

RT: 3.79
Area: 13750
Amount: 0.182651
Amount Units: ng/ml



Manual Integration Results

RT: 3.79
Area: 14361
Amount: 0.189667
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:15:02

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

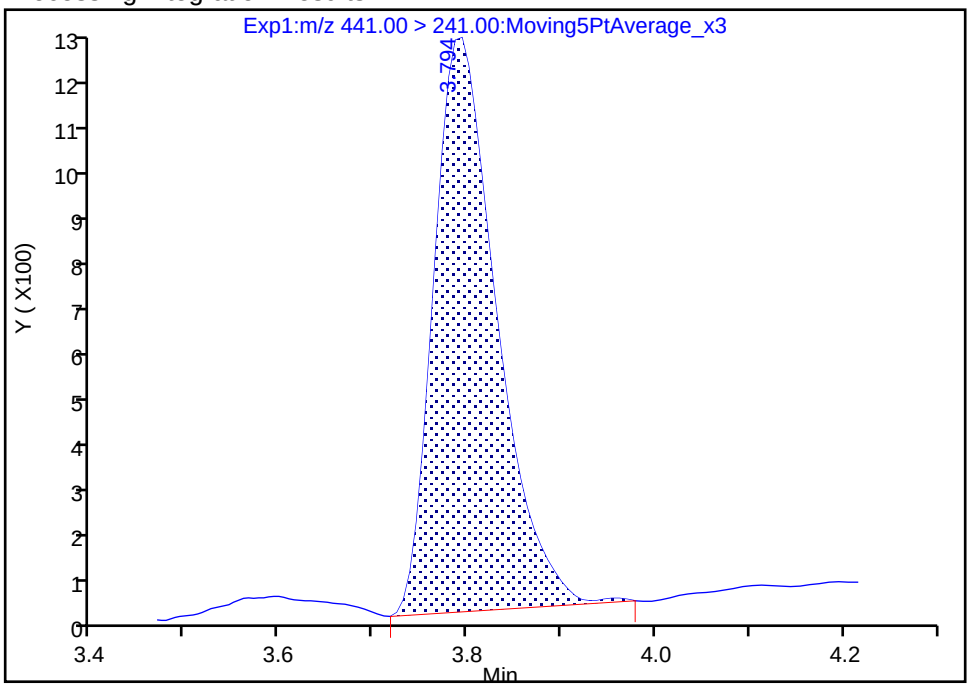
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

4 R-PSDA, CAS: 2416366-18-0

Signal: 1

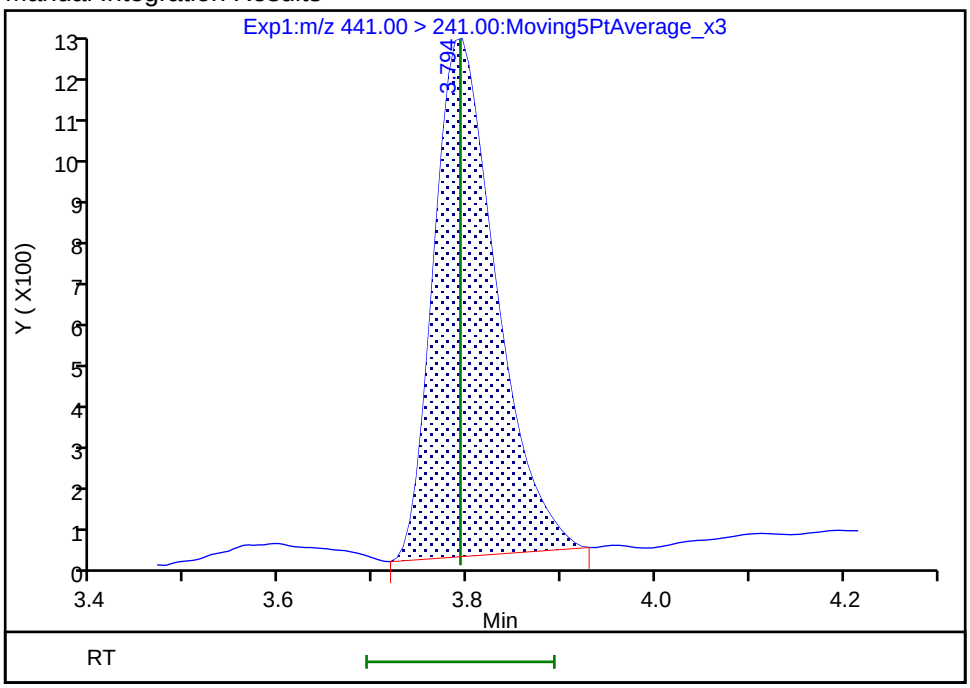
Processing Integration Results

RT: 3.79
Area: 5468
Amount: 0.200719
Amount Units: ng/ml



Manual Integration Results

RT: 3.79
Area: 5413
Amount: 0.198987
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:14:54
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

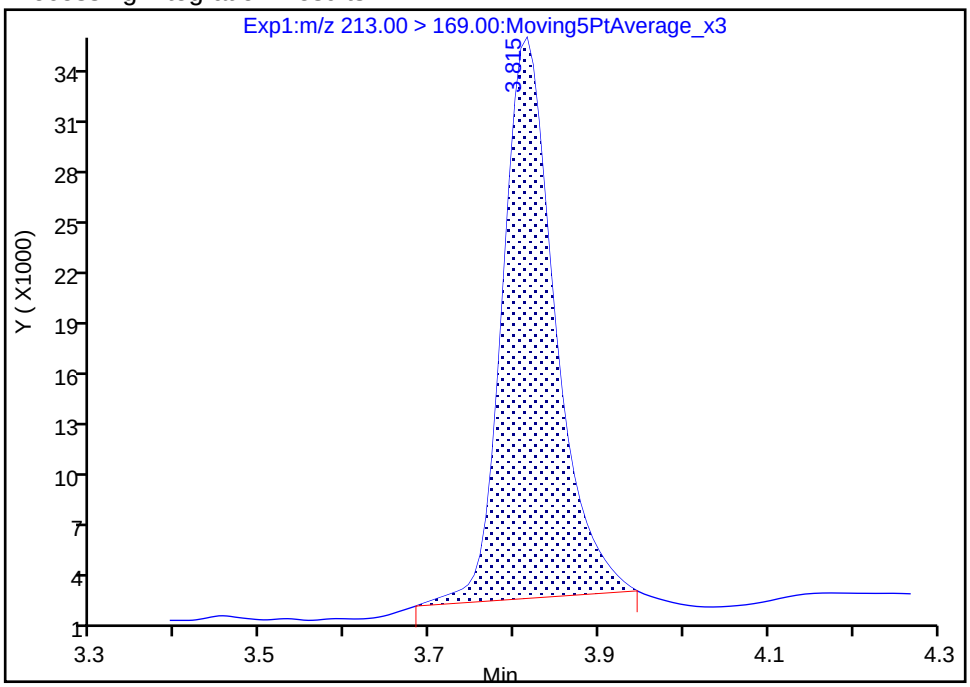
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

7 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

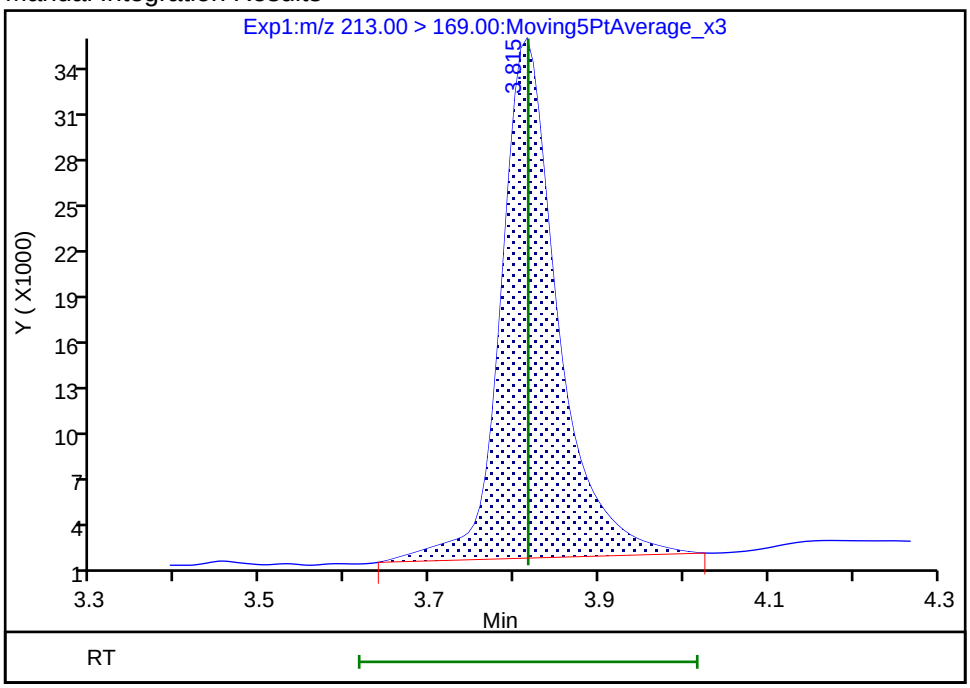
Processing Integration Results

RT: 3.81
Area: 142376
Amount: 0.203173
Amount Units: ng/ml



Manual Integration Results

RT: 3.81
Area: 158033
Amount: 0.220890
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:14:30

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

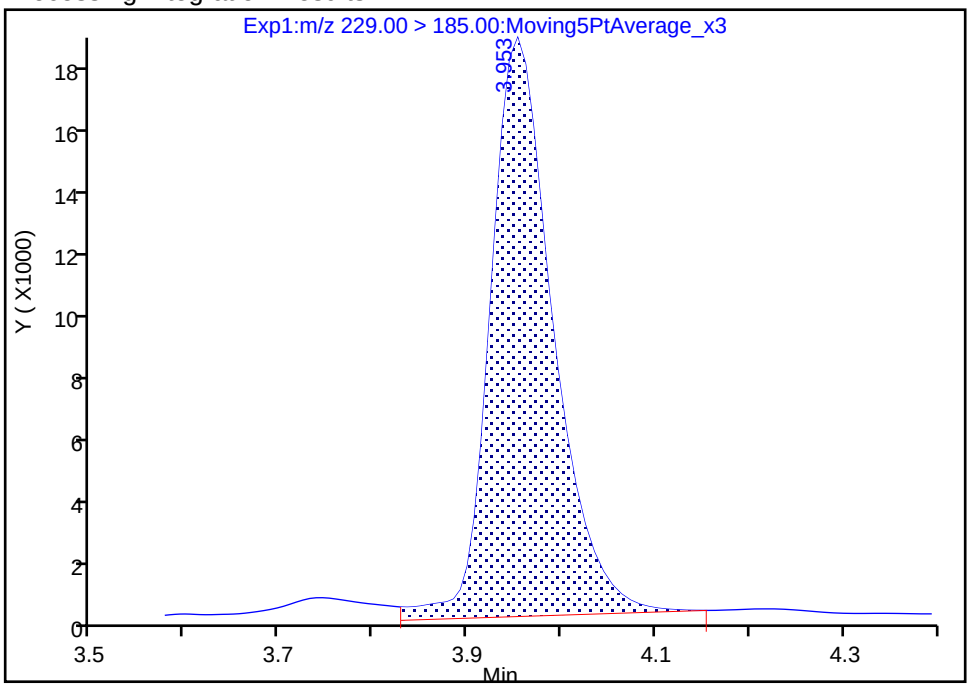
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

10 PMPA, CAS: 13140-29-9

Signal: 1

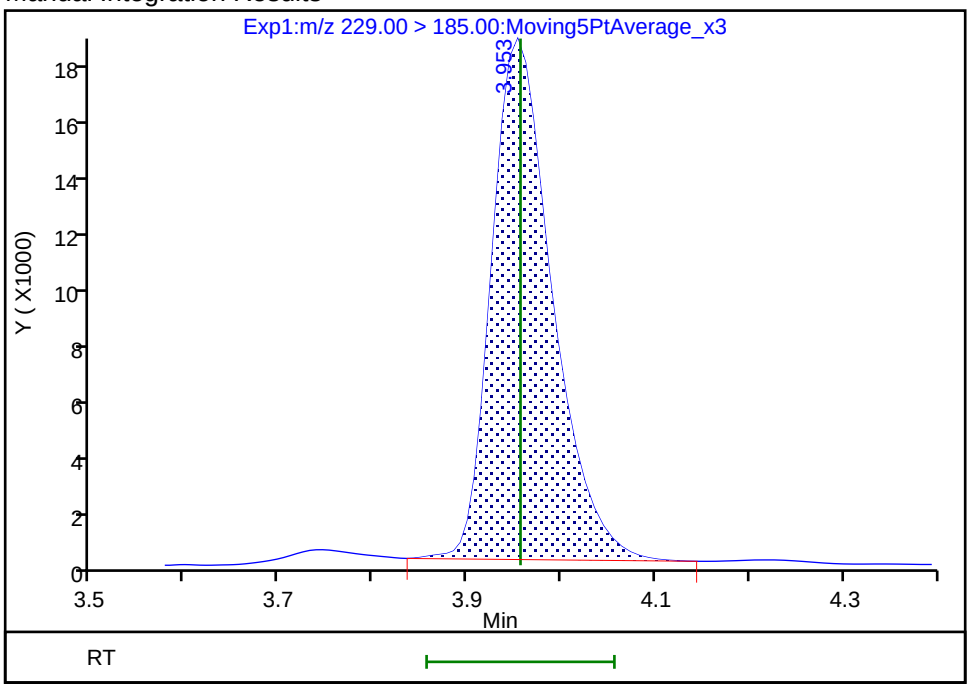
Processing Integration Results

RT: 3.95
Area: 82757
Amount: 0.193722
Amount Units: ng/ml



Manual Integration Results

RT: 3.95
Area: 78821
Amount: 0.185731
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:15:11
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

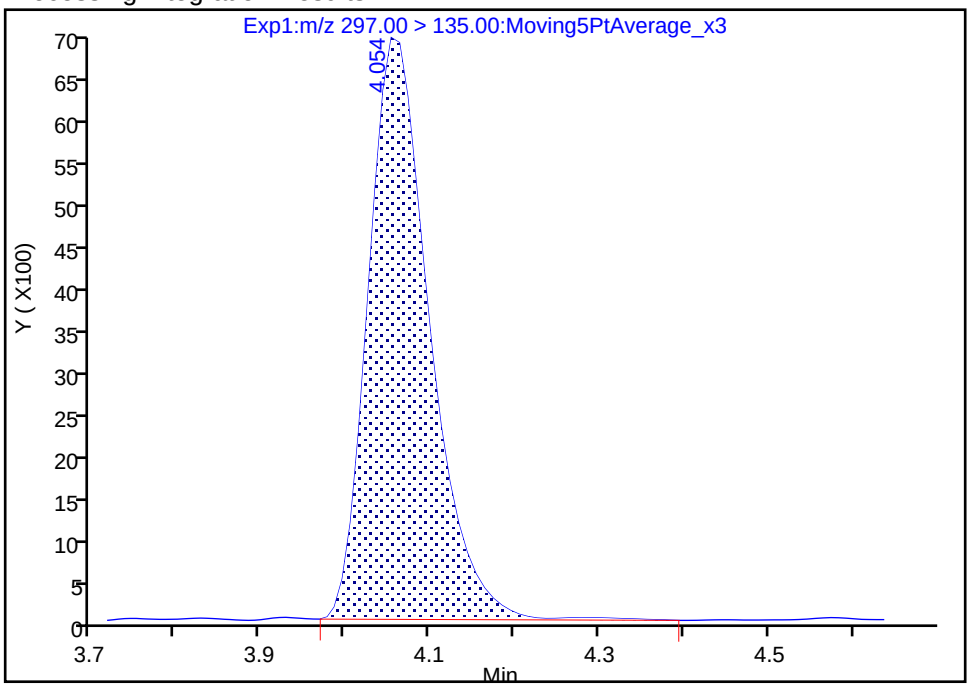
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

12 NVHOS, CAS: 801209-99-4

Signal: 1

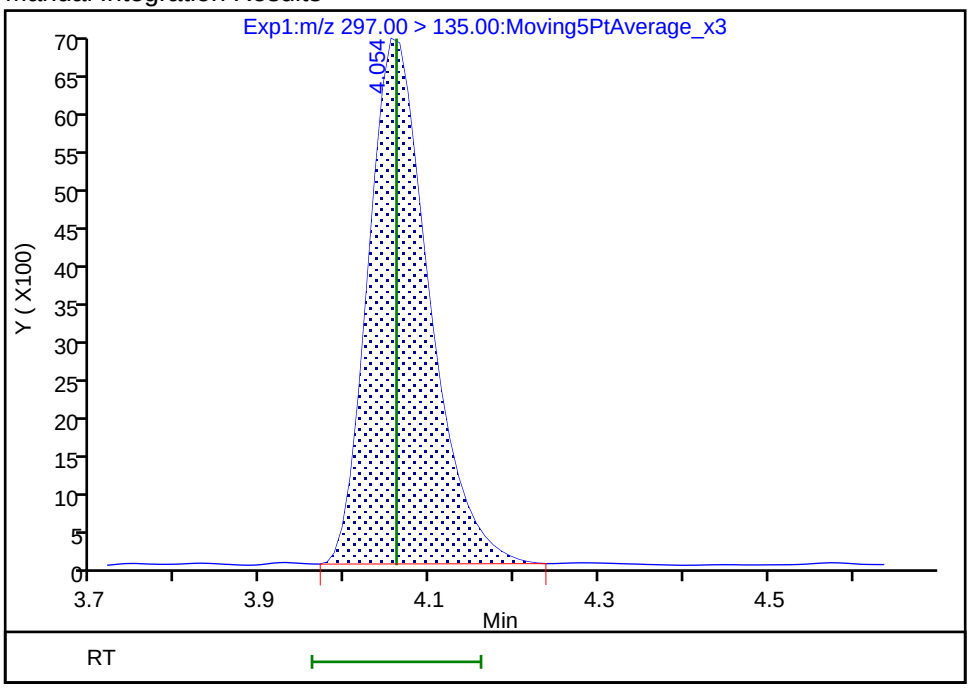
Processing Integration Results

RT: 4.05
Area: 34666
Amount: 0.191807
Amount Units: ng/ml



Manual Integration Results

RT: 4.05
Area: 34384
Amount: 0.190458
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:15:20
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

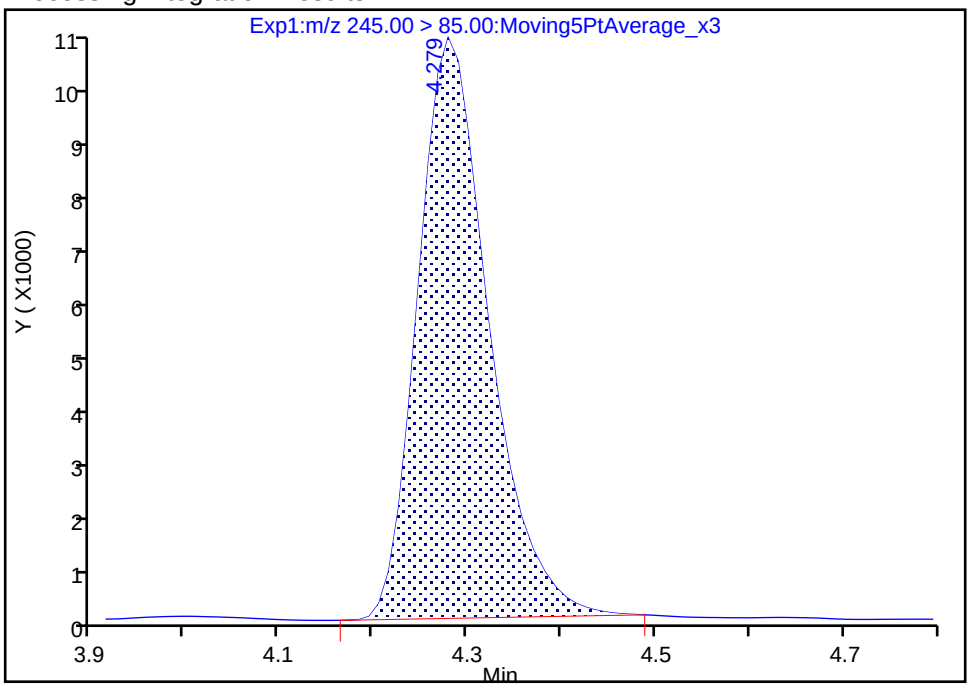
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

14 PFO2HxA, CAS: 39492-88-1

Signal: 1

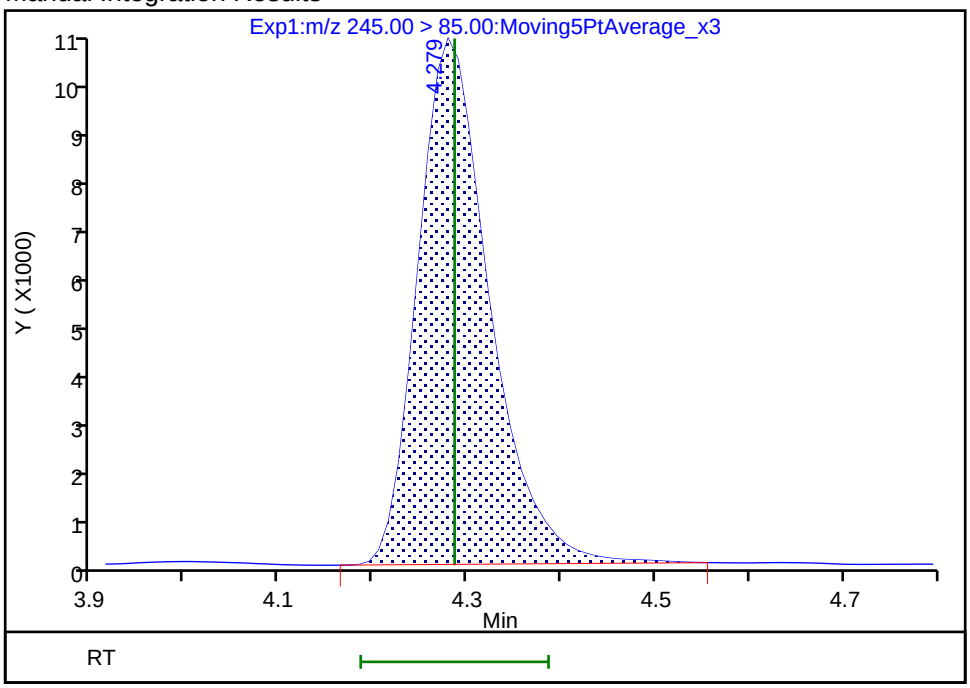
Processing Integration Results

RT: 4.28
Area: 55946
Amount: 0.179122
Amount Units: ng/ml



Manual Integration Results

RT: 4.28
Area: 56586
Amount: 0.180906
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:15:28
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

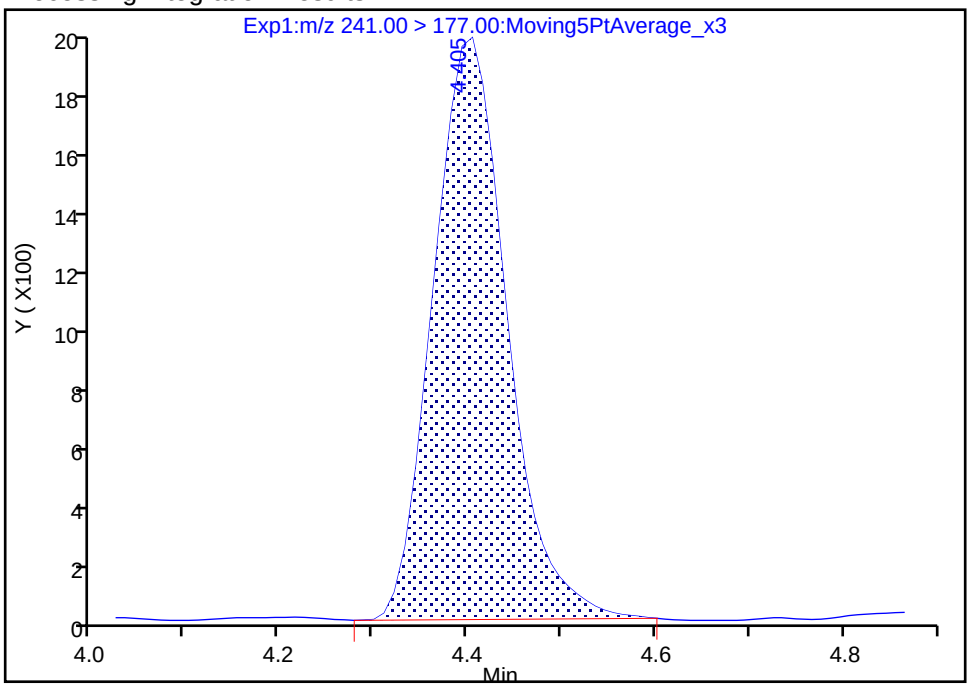
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

15 3:3 FTCA, CAS: 356-02-5

Signal: 1

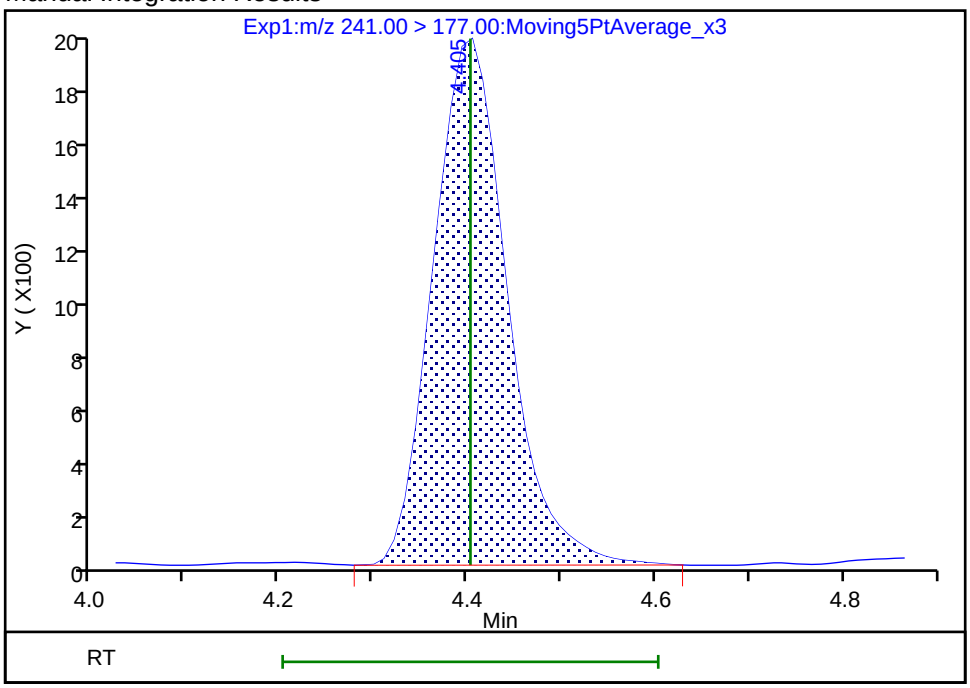
Processing Integration Results

RT: 4.41
Area: 10681
Amount: 0.208716
Amount Units: ng/ml



Manual Integration Results

RT: 4.41
Area: 10744
Amount: 0.209763
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:15:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

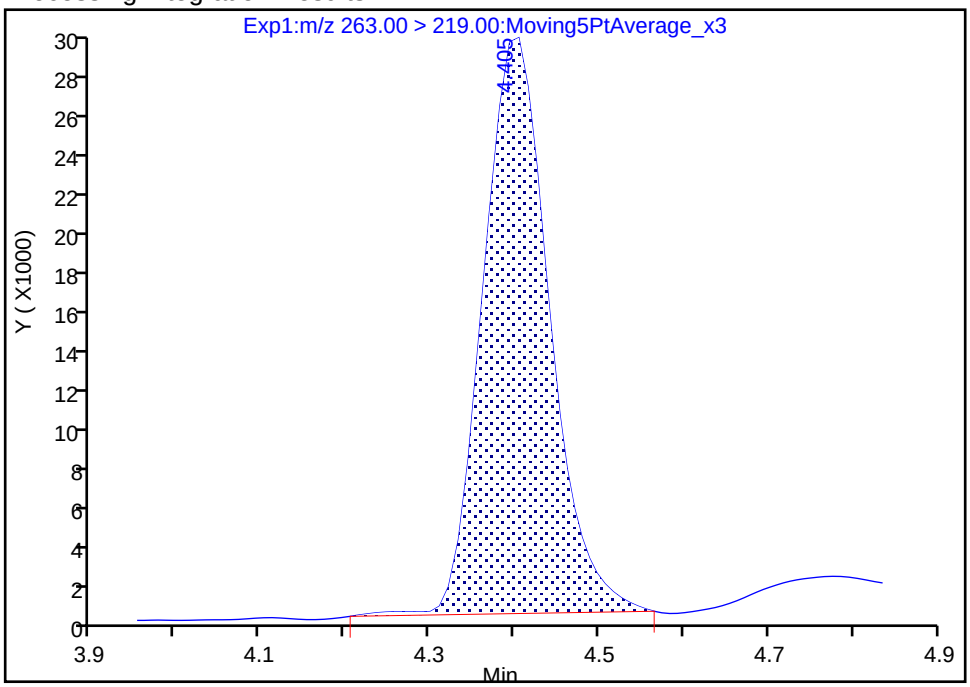
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

16 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

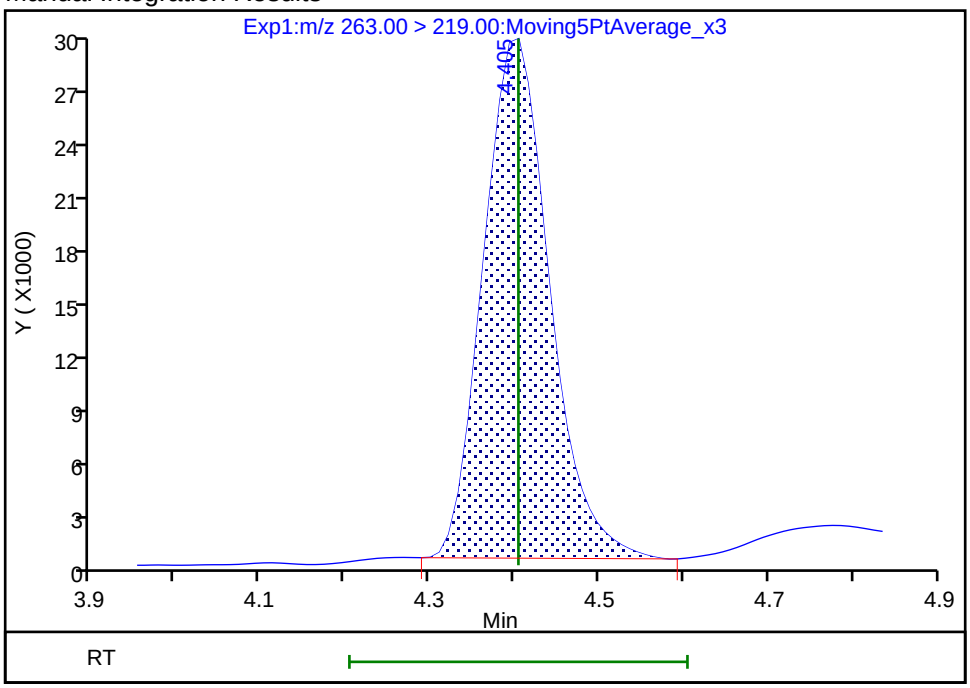
Processing Integration Results

RT: 4.41
Area: 157076
Amount: 0.208373
Amount Units: ng/ml



Manual Integration Results

RT: 4.41
Area: 155940
Amount: 0.207089
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:15:46

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

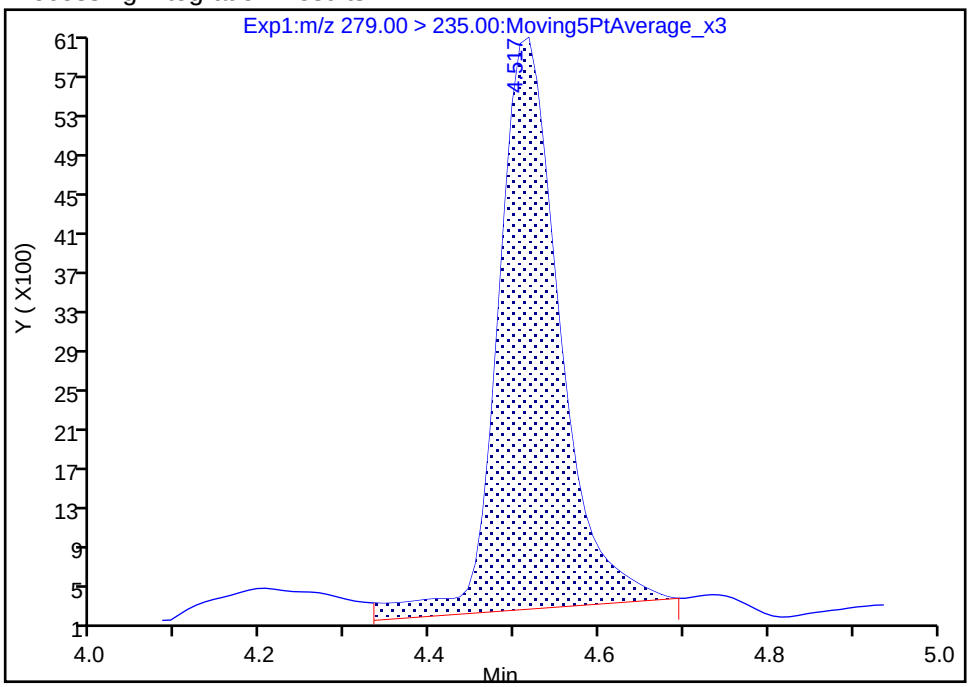
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

20 PEPA, CAS: 267239-61-2

Signal: 1

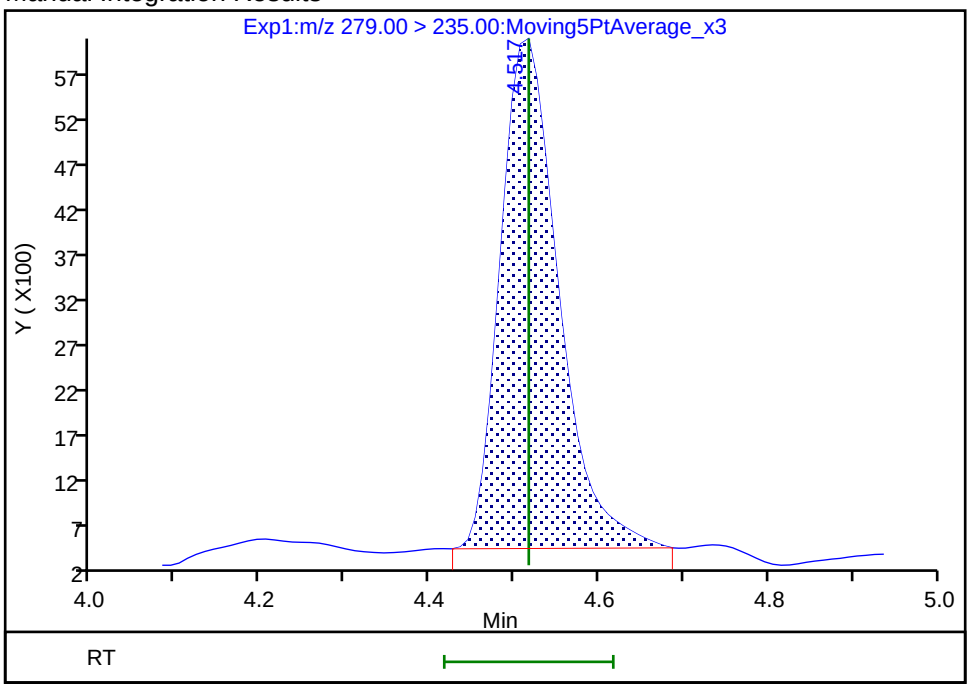
Processing Integration Results

RT: 4.52
Area: 29160
Amount: 0.193854
Amount Units: ng/ml



Manual Integration Results

RT: 4.52
Area: 26949
Amount: 0.181856
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:15:54

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

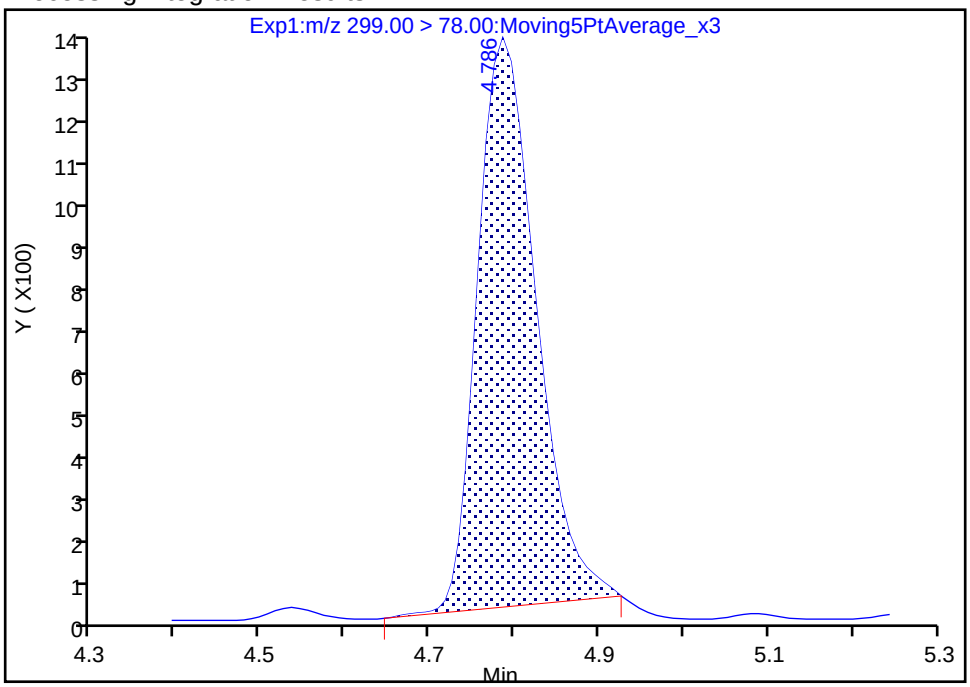
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

110 FBSA, CAS: 30334-69-1

Signal: 1

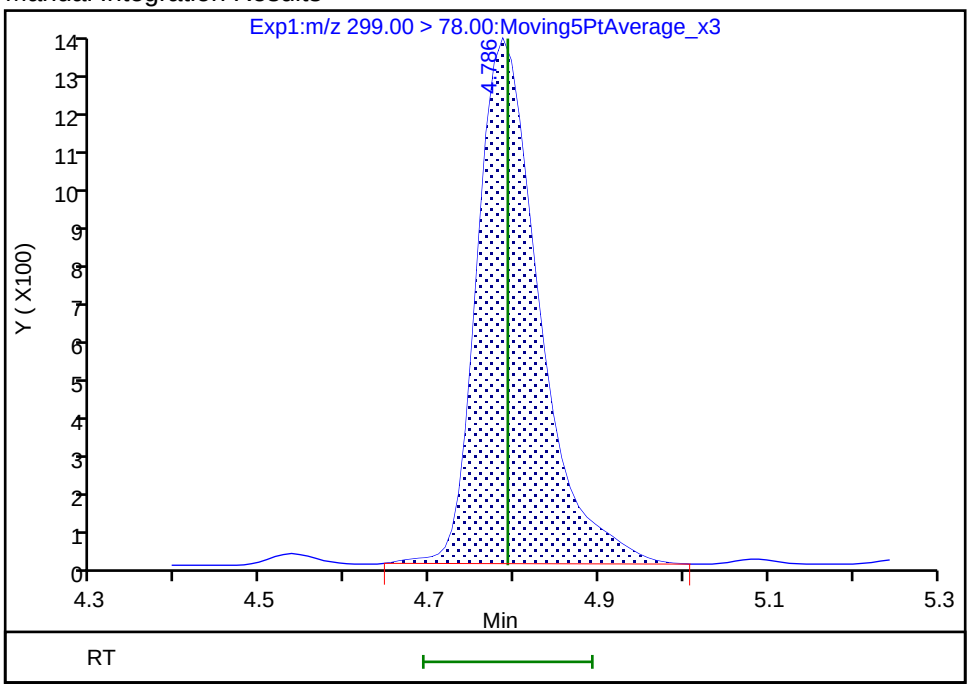
Processing Integration Results

RT: 4.79
Area: 6514
Amount: 0.198813
Amount Units: ng/ml



Manual Integration Results

RT: 4.79
Area: 7051
Amount: 0.212713
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:16:07

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

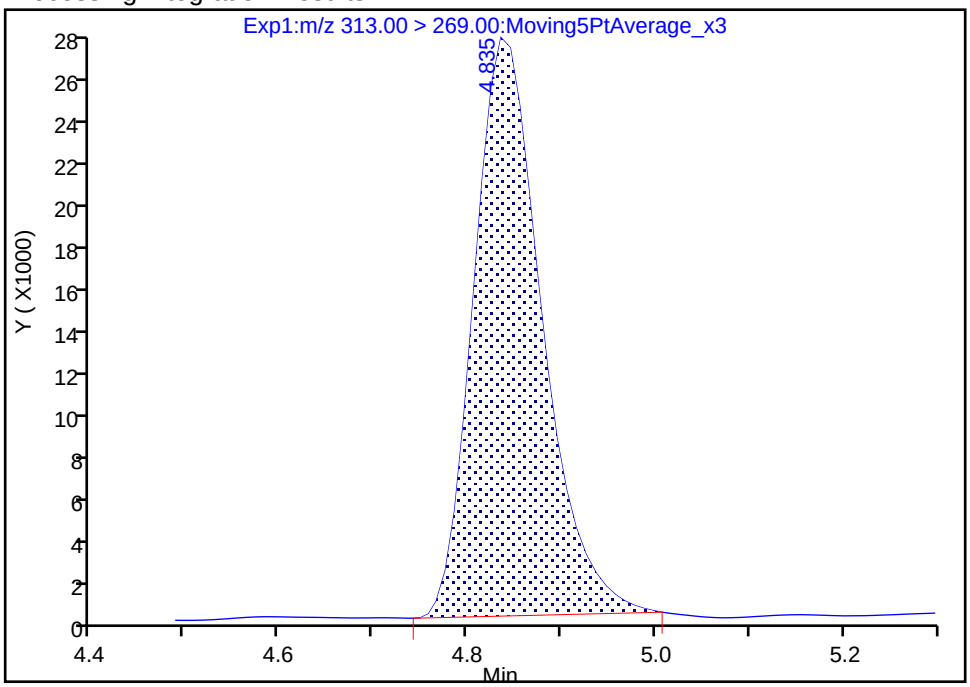
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

26 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

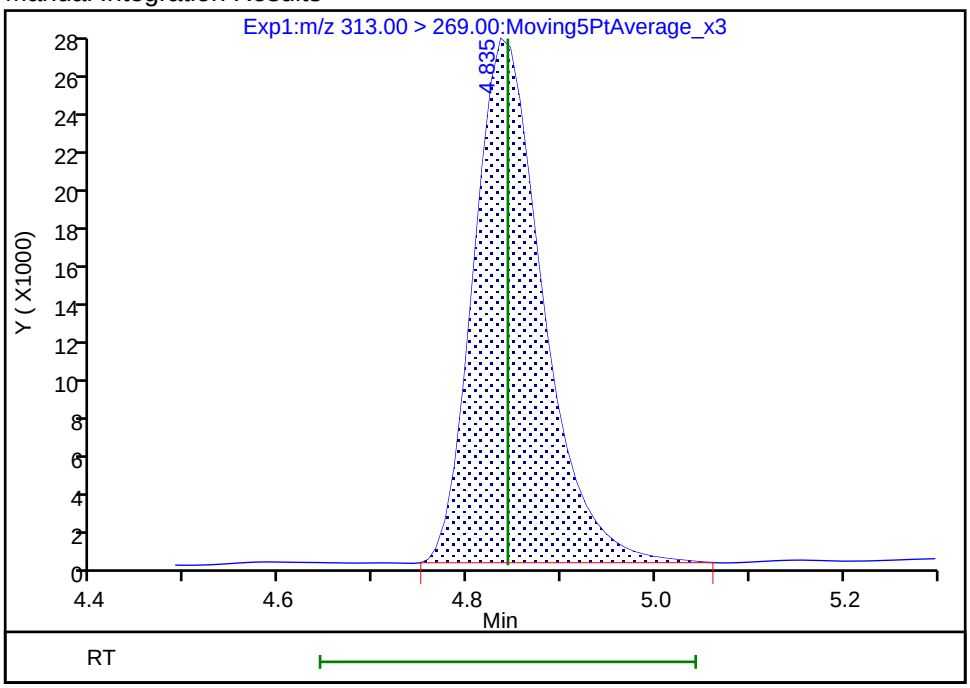
Processing Integration Results

RT: 4.84
Area: 138340
Amount: 0.200147
Amount Units: ng/ml



Manual Integration Results

RT: 4.84
Area: 140474
Amount: 0.202787
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:16:17
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

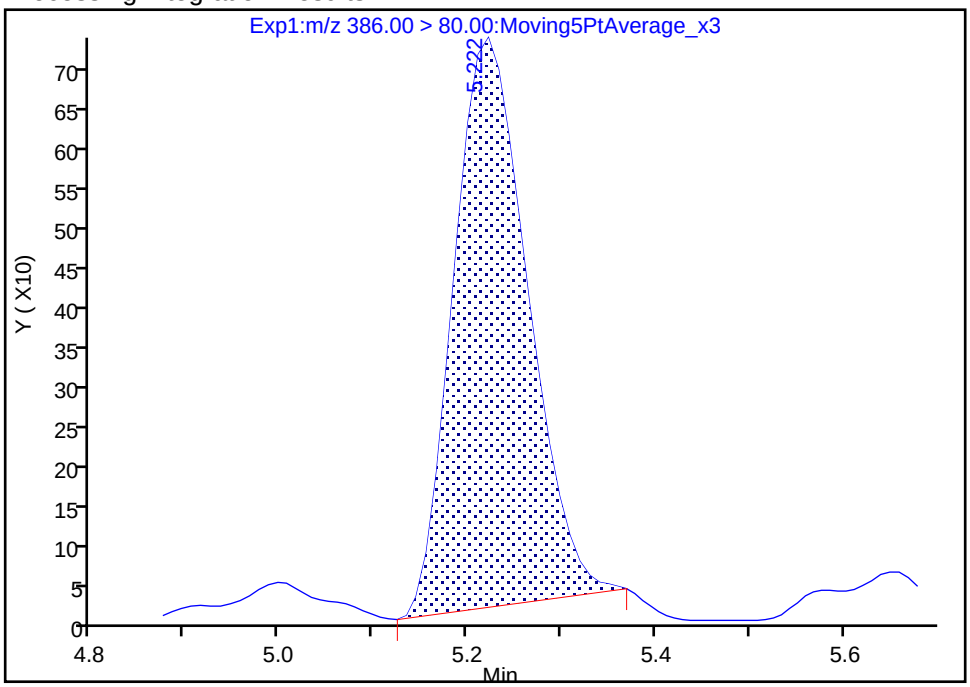
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

108 FBSEE, CAS: 34455-00-0

Signal: 2

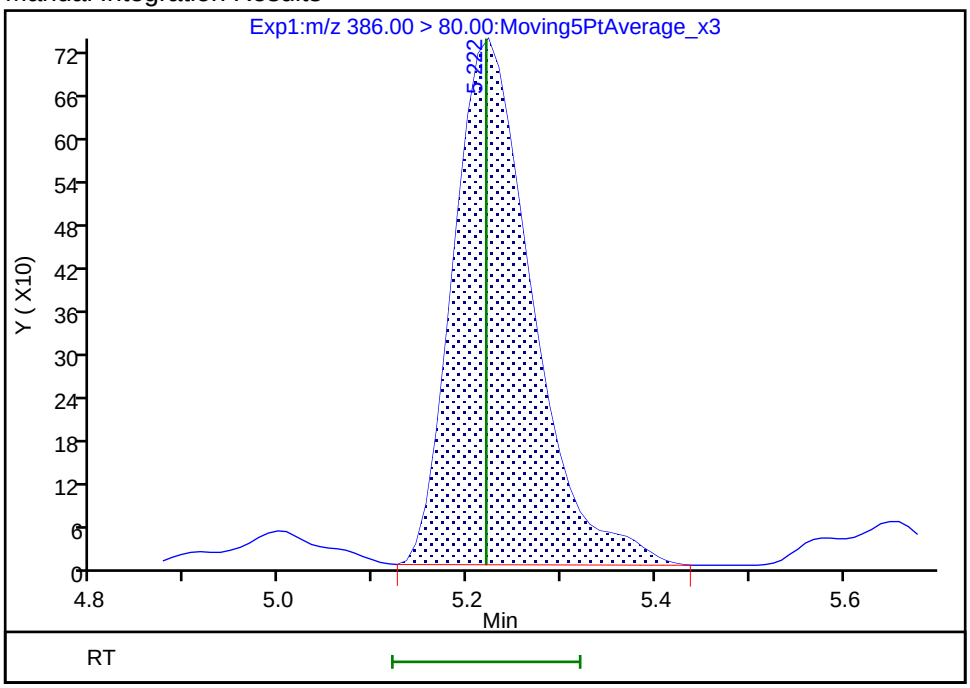
Processing Integration Results

RT: 5.22
Area: 3951
Amount: 0.199829
Amount Units: ng/ml



Manual Integration Results

RT: 5.22
Area: 4302
Amount: 0.215439
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:16:29

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

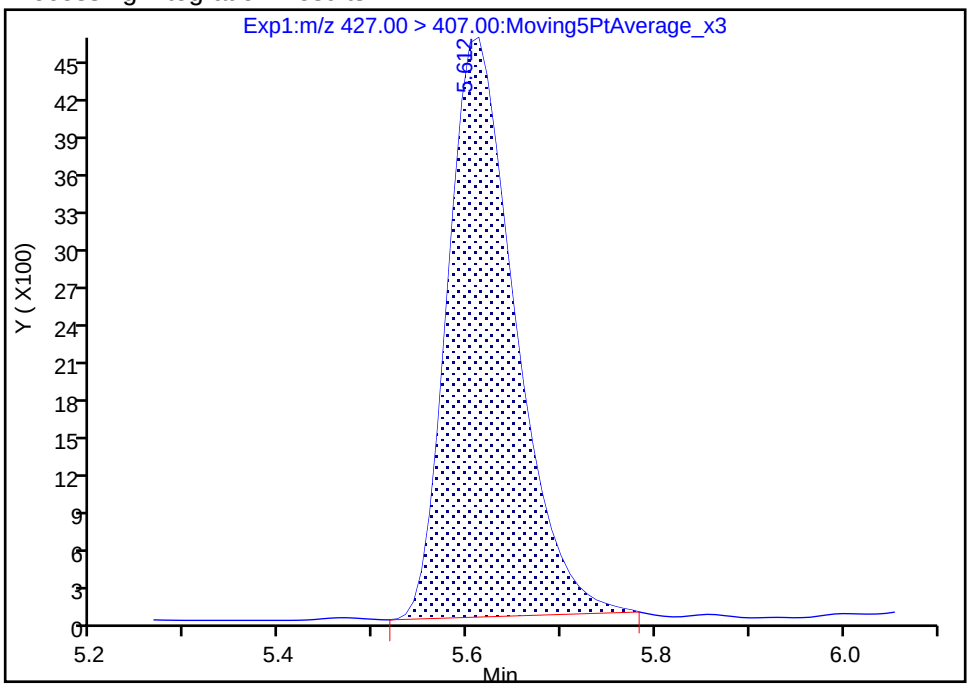
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

50 6:2 FTS, CAS: 27619-97-2

Signal: 1

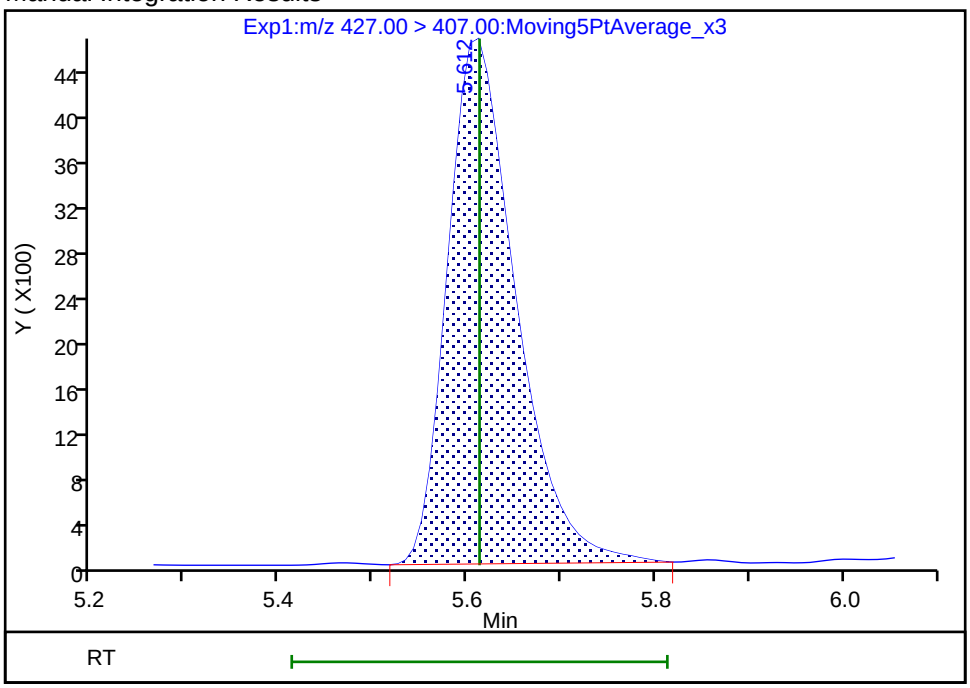
Processing Integration Results

RT: 5.61
Area: 23048
Amount: 0.169288
Amount Units: ng/ml



Manual Integration Results

RT: 5.61
Area: 23418
Amount: 0.171655
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:16:48

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

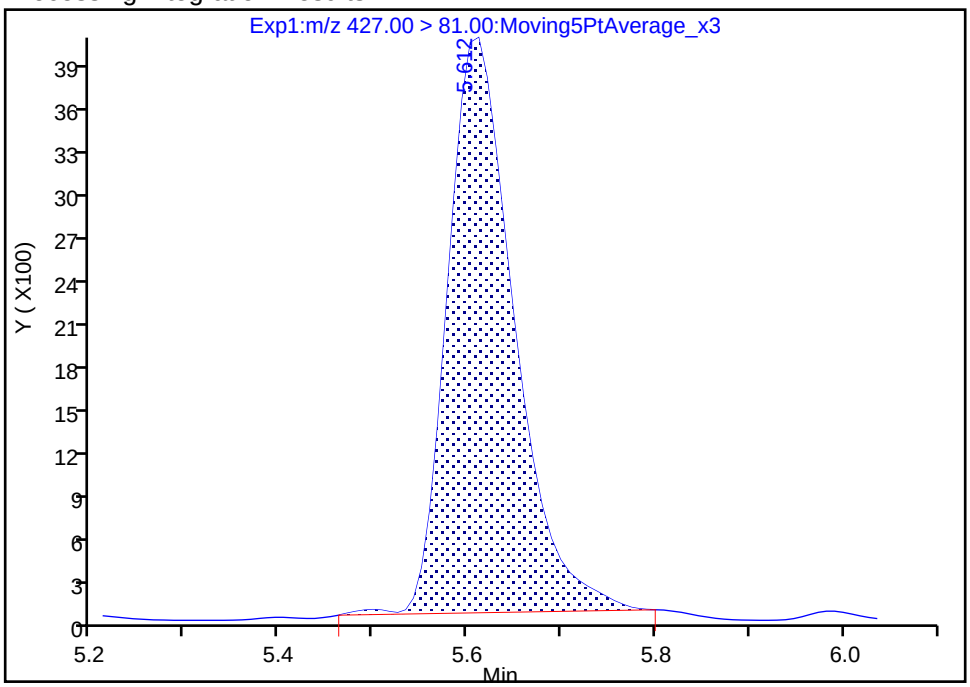
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

50 6:2 FTS, CAS: 27619-97-2

Signal: 2

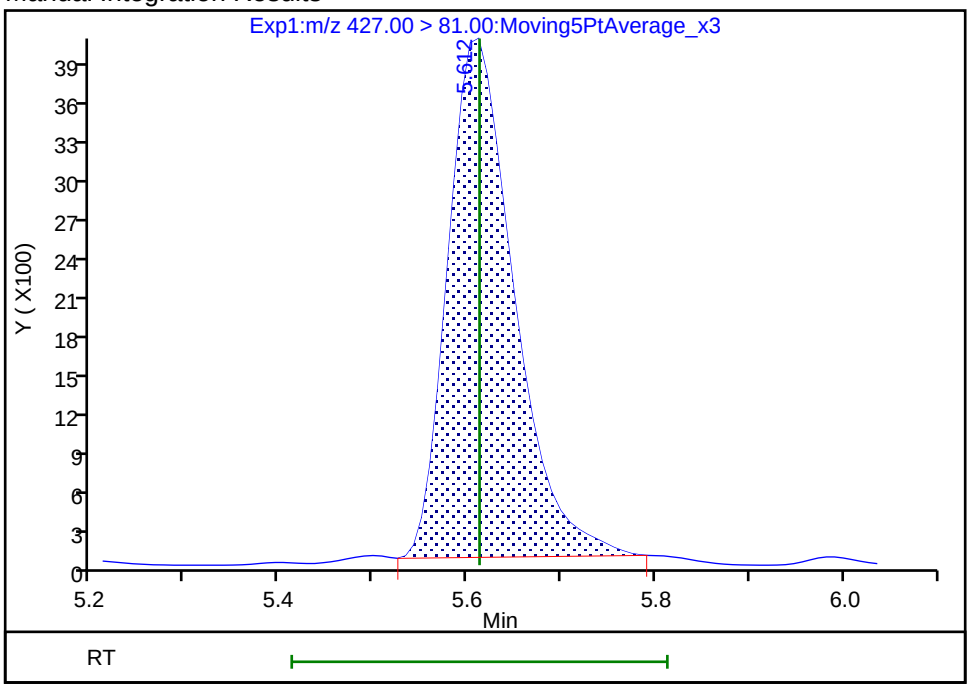
Processing Integration Results

RT: 5.61
Area: 19891
Amount: 0.169288
Amount Units: ng/ml



Manual Integration Results

RT: 5.61
Area: 19702
Amount: 0.171655
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:16:54

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

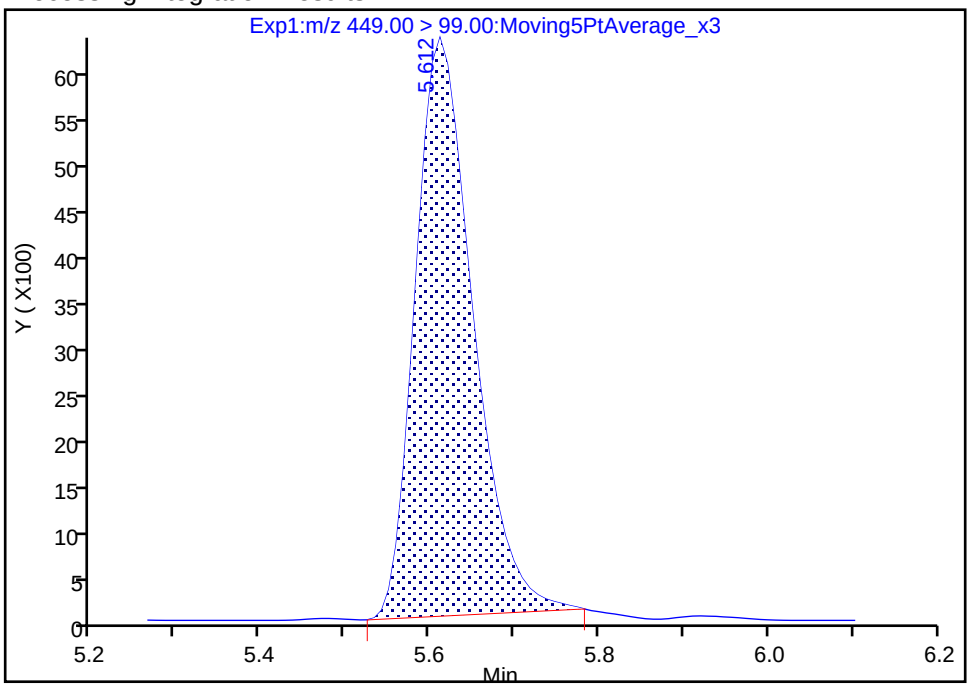
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

51 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

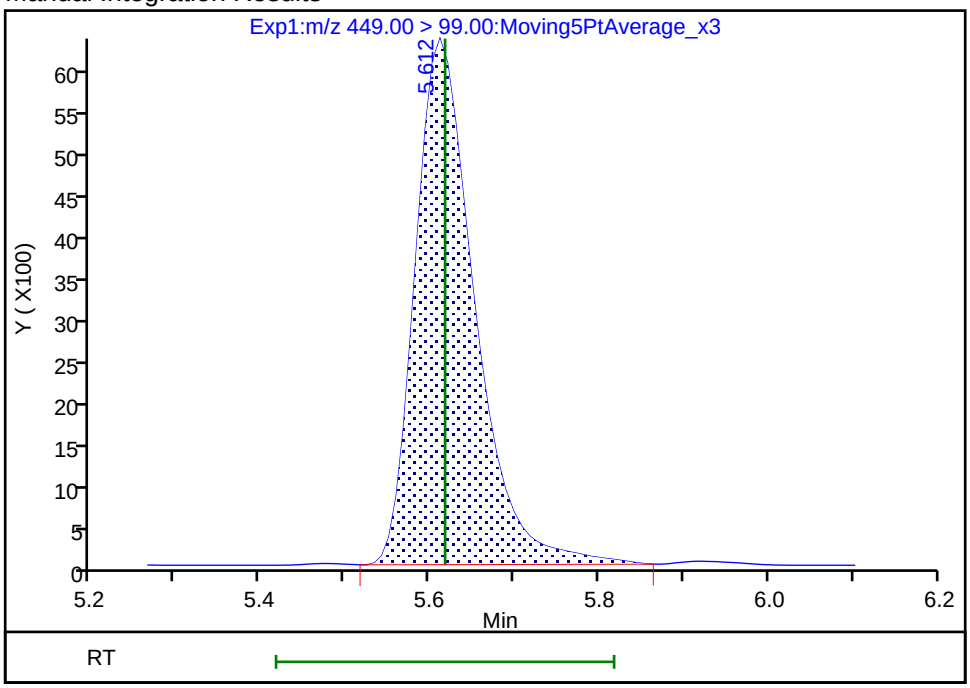
Processing Integration Results

RT: 5.61
Area: 30011
Amount: 0.173419
Amount Units: ng/ml



Manual Integration Results

RT: 5.61
Area: 31133
Amount: 0.173419
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:17:02
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

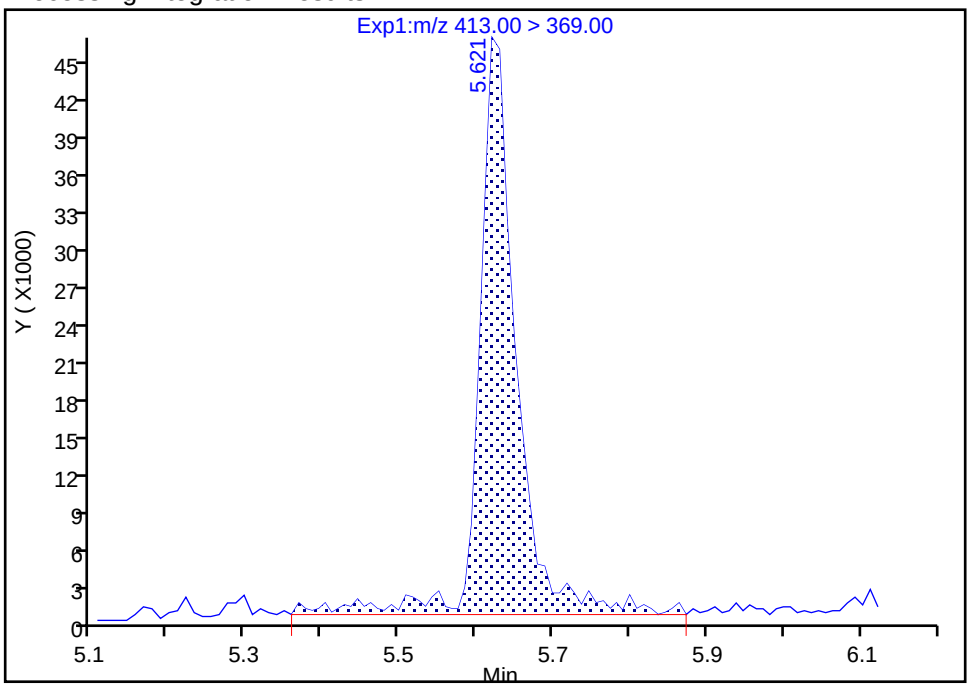
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

53 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

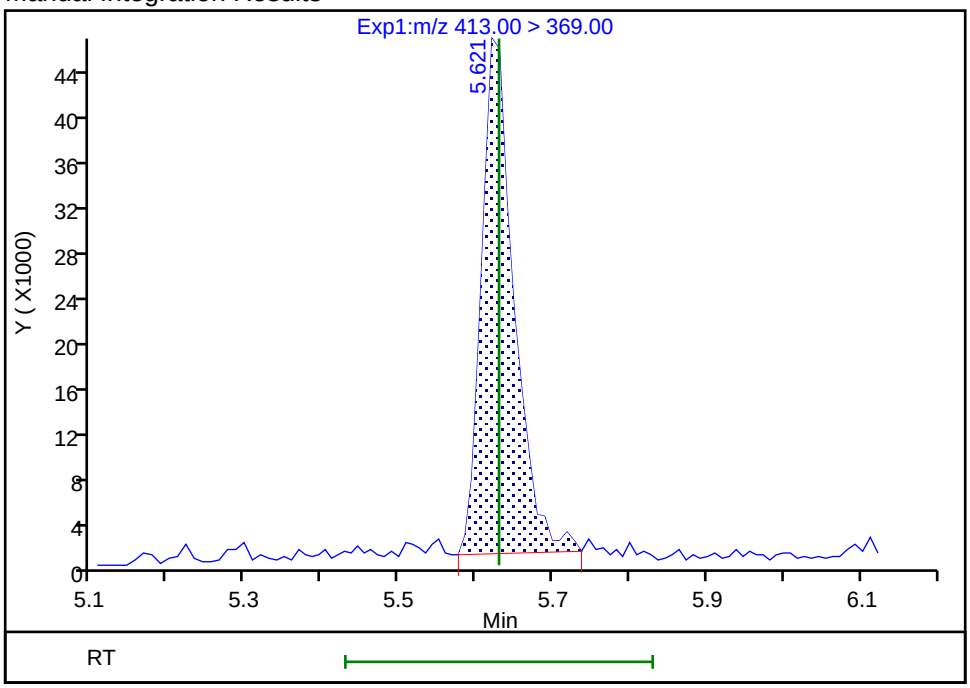
Processing Integration Results

RT: 5.62
Area: 154527
Amount: 0.220719
Amount Units: ng/ml



Manual Integration Results

RT: 5.62
Area: 132947
Amount: 0.194171
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:17:10
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

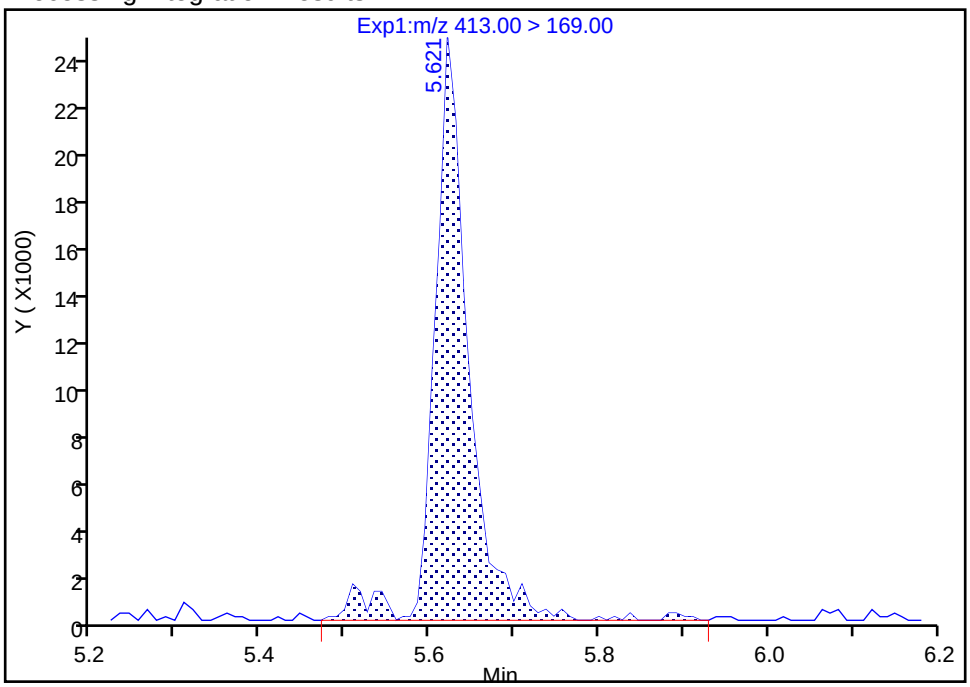
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

53 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

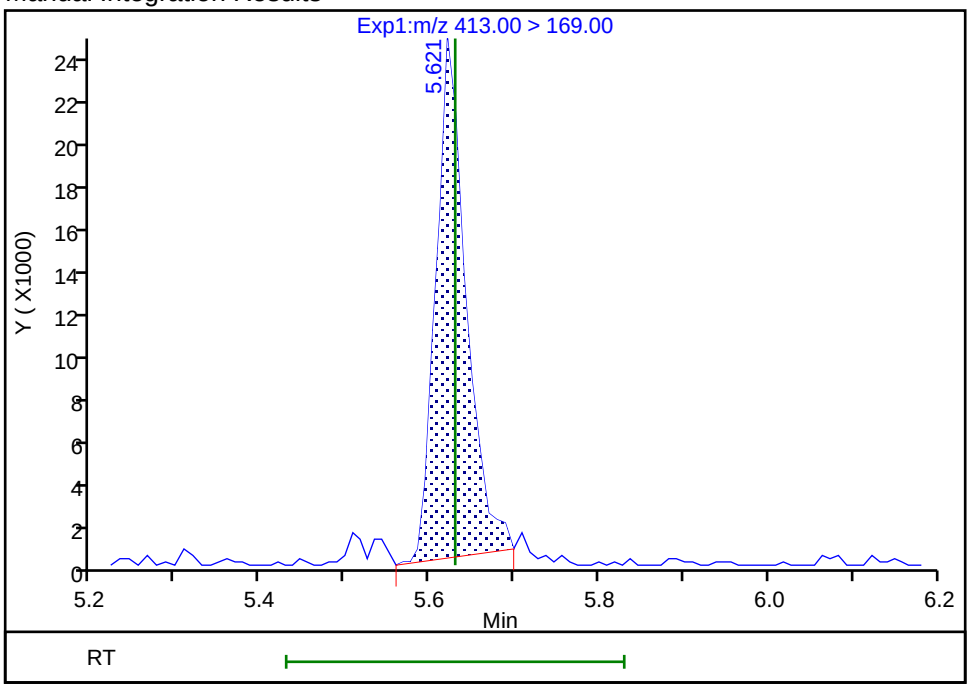
Processing Integration Results

RT: 5.62
Area: 70834
Amount: 0.220719
Amount Units: ng/ml



Manual Integration Results

RT: 5.62
Area: 60796
Amount: 0.194171
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:17:18

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

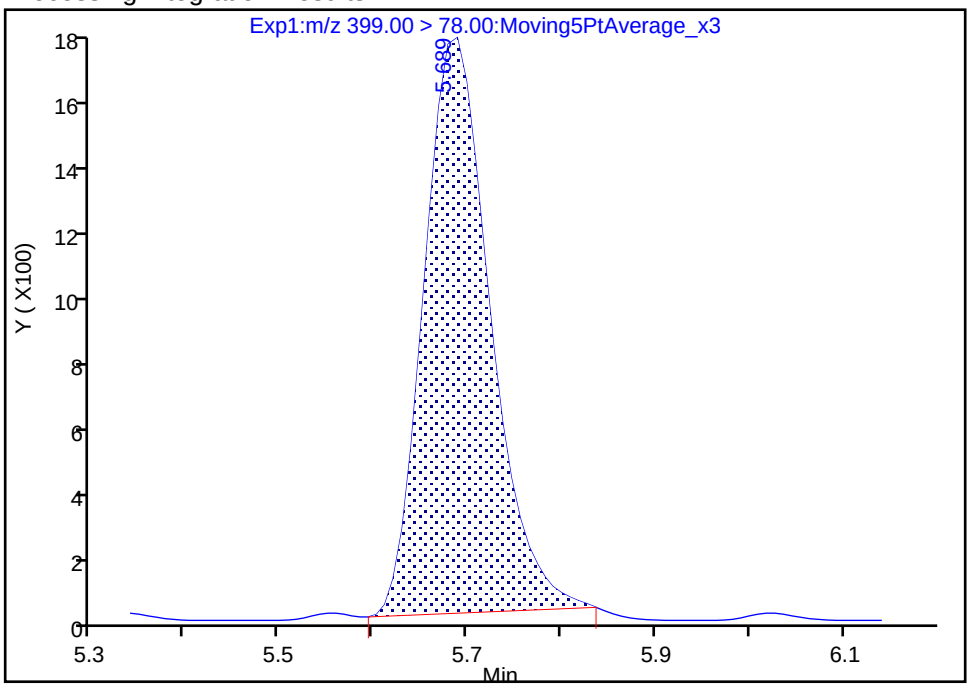
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

106 FHxSA, CAS: 41997-13-1

Signal: 1

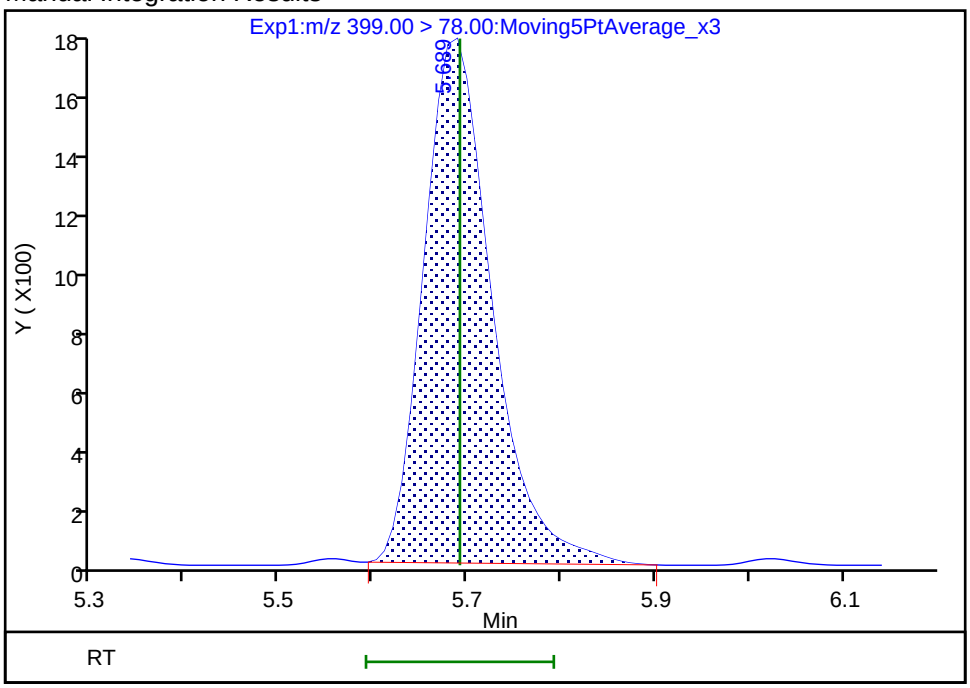
Processing Integration Results

RT: 5.69
Area: 8252
Amount: 0.195940
Amount Units: ng/ml



Manual Integration Results

RT: 5.69
Area: 8550
Amount: 0.207942
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:17:28

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

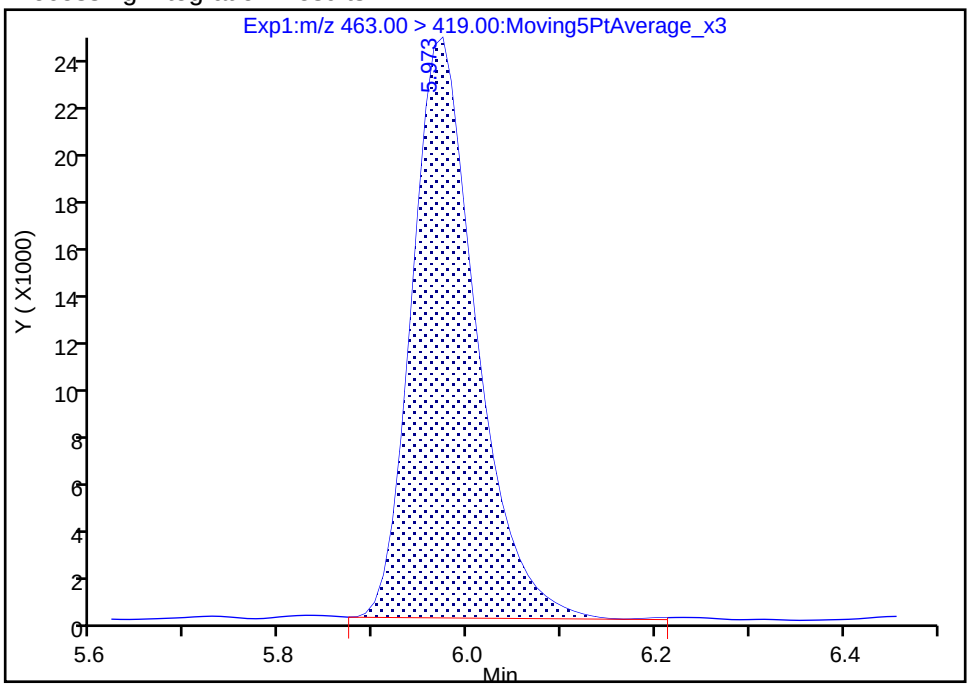
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

61 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

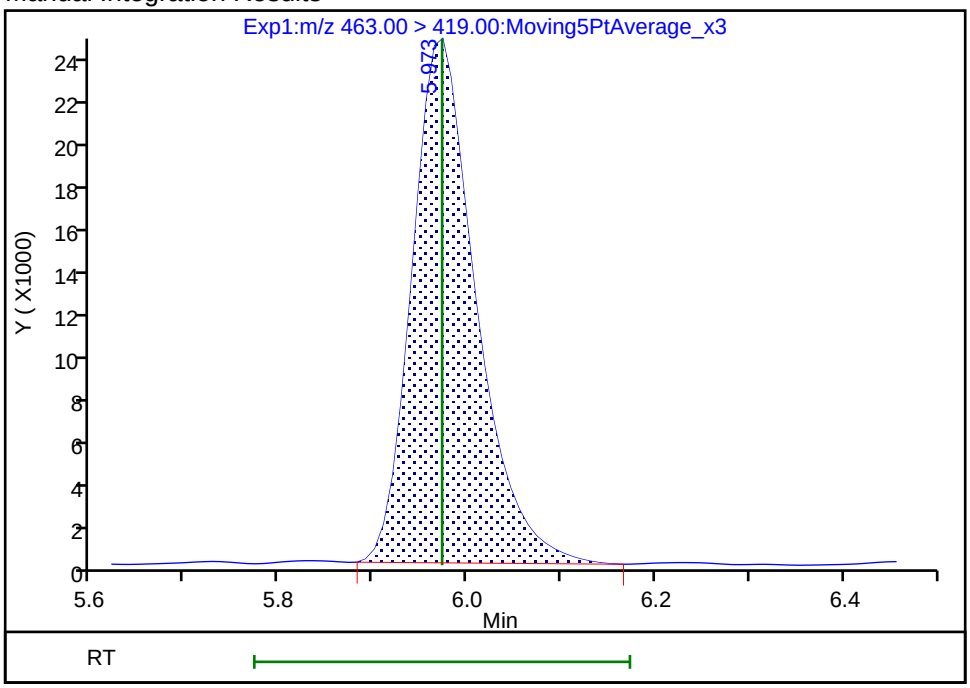
Processing Integration Results

RT: 5.97
Area: 115162
Amount: 0.200329
Amount Units: ng/ml



Manual Integration Results

RT: 5.97
Area: 114944
Amount: 0.200004
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:17:39
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

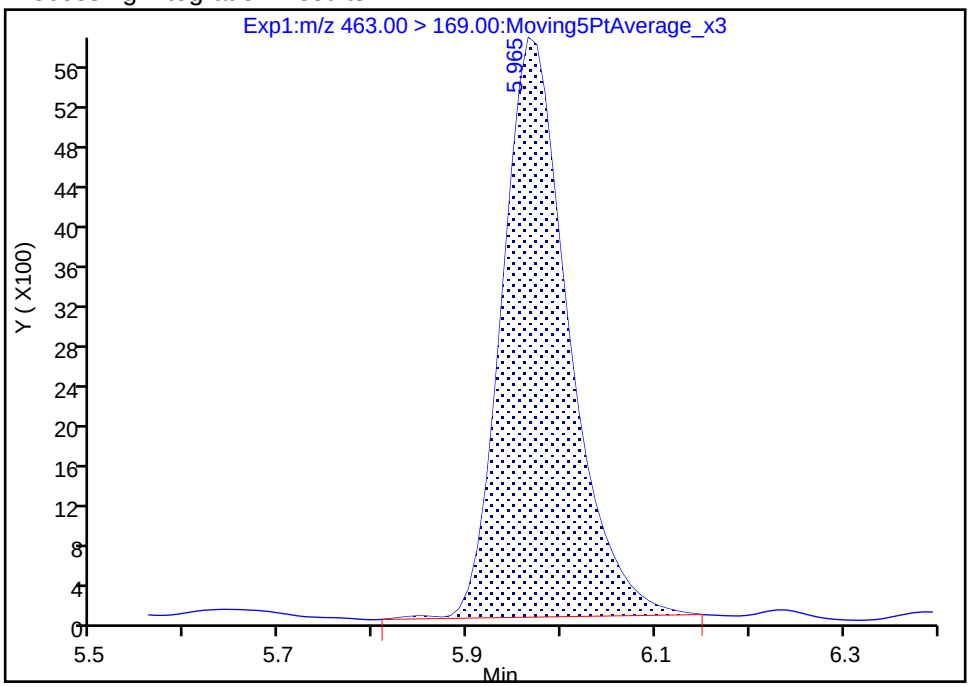
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

61 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

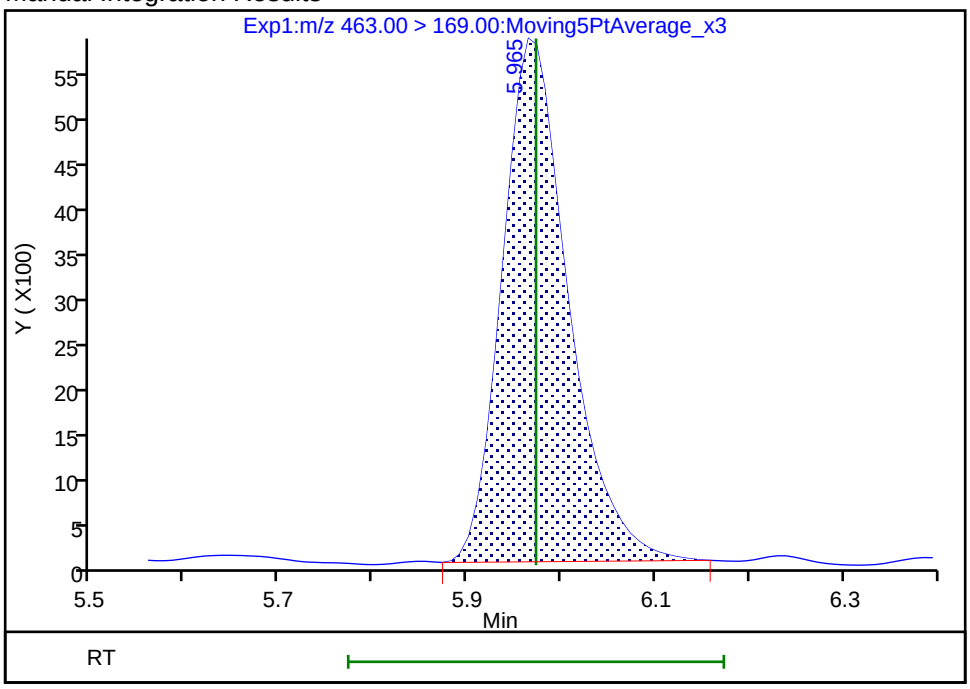
Processing Integration Results

RT: 5.96
Area: 28806
Amount: 0.200329
Amount Units: ng/ml



Manual Integration Results

RT: 5.96
Area: 28679
Amount: 0.200004
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:17:46
Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

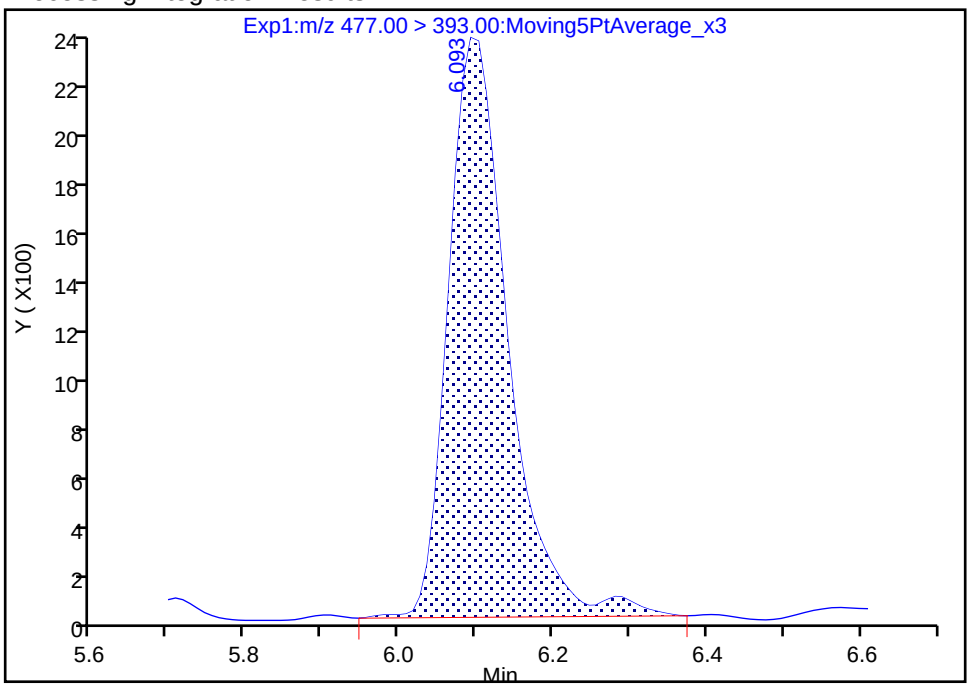
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

65 8:2 FTCA, CAS: 27854-31-5

Signal: 1

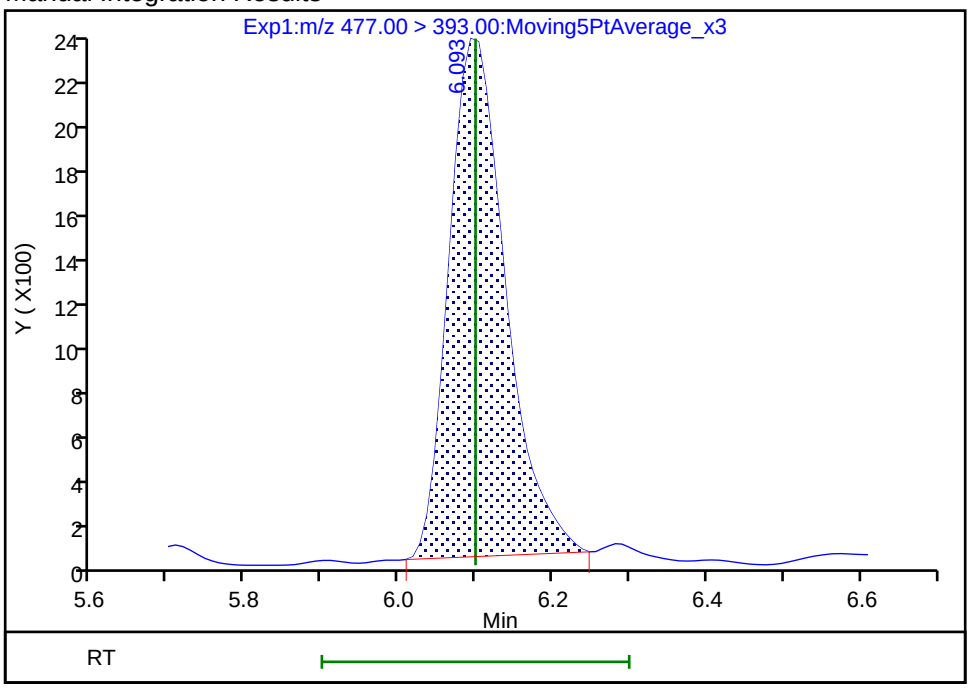
Processing Integration Results

RT: 6.09
Area: 12849
Amount: 0.196793
Amount Units: ng/ml



Manual Integration Results

RT: 6.09
Area: 12078
Amount: 0.186558
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:17:56

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

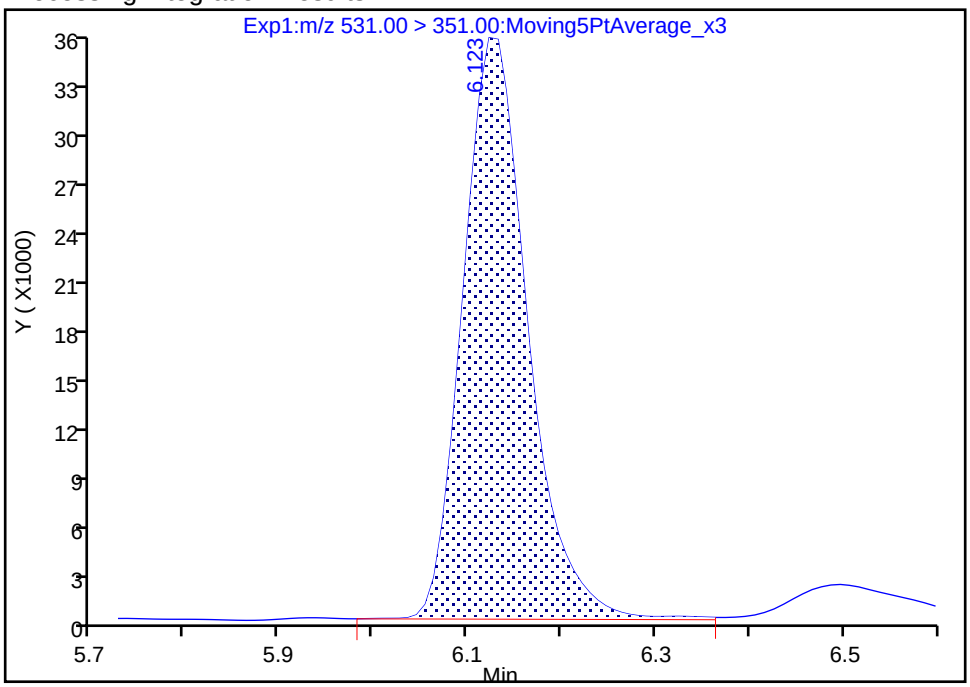
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

67 9ClFOS, CAS: 756426-58-1

Signal: 1

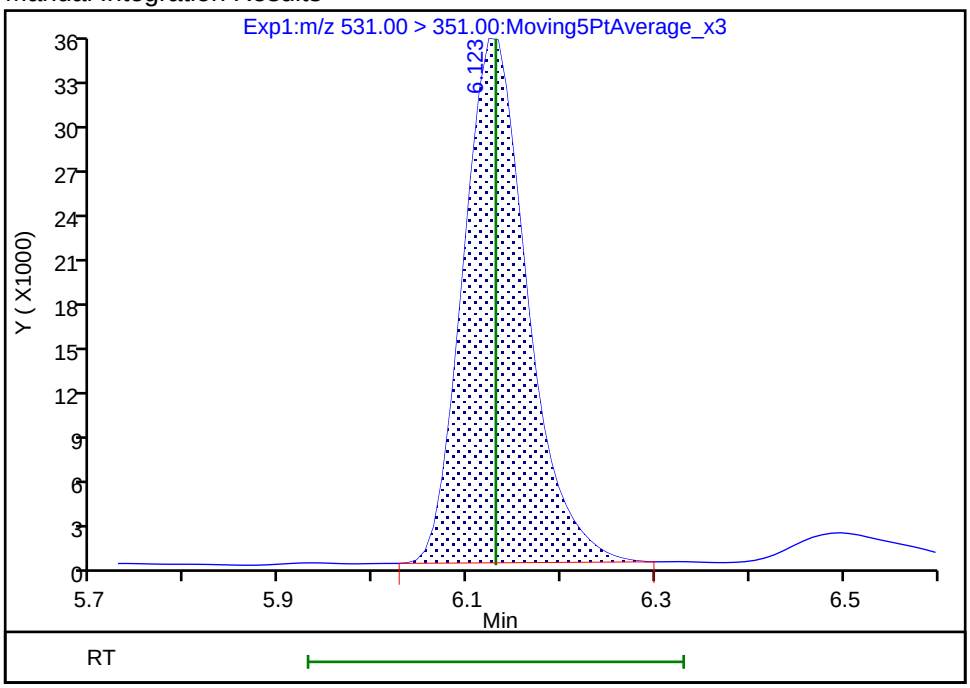
Processing Integration Results

RT: 6.12
Area: 172726
Amount: 0.186200
Amount Units: ng/ml



Manual Integration Results

RT: 6.12
Area: 170142
Amount: 0.183808
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:18:13

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

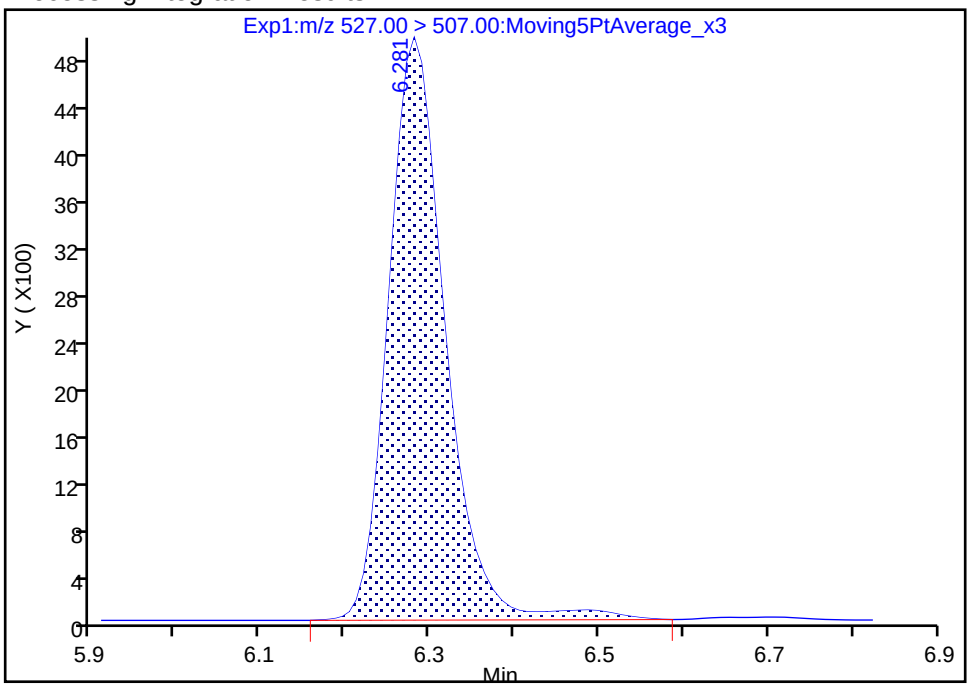
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

72 8:2 FTS, CAS: 39108-34-4

Signal: 1

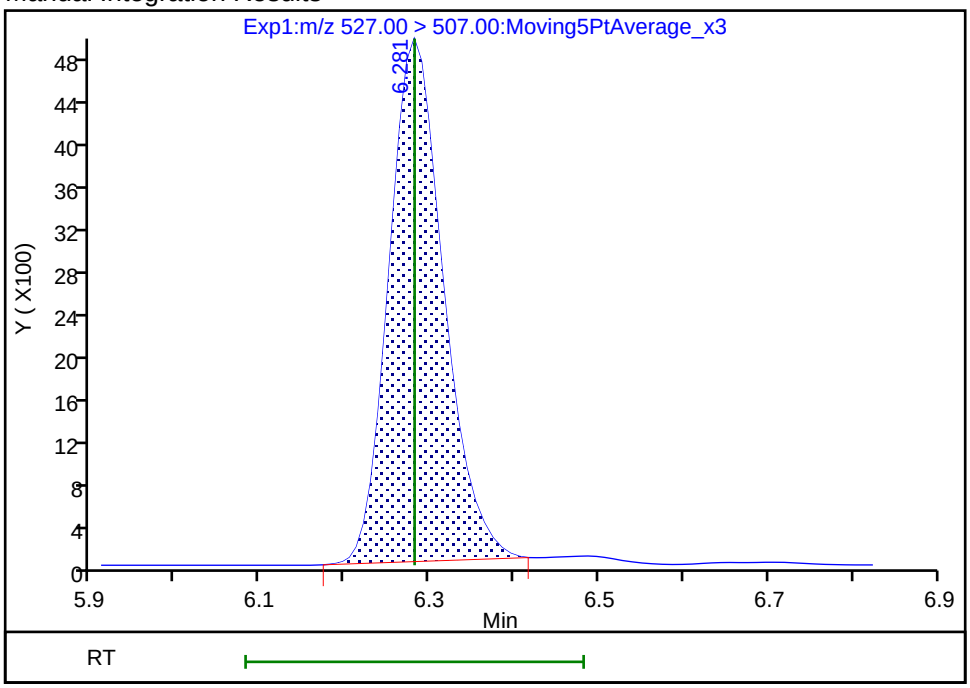
Processing Integration Results

RT: 6.28
Area: 23087
Amount: 0.203526
Amount Units: ng/ml



Manual Integration Results

RT: 6.28
Area: 22048
Amount: 0.195703
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:18:21

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

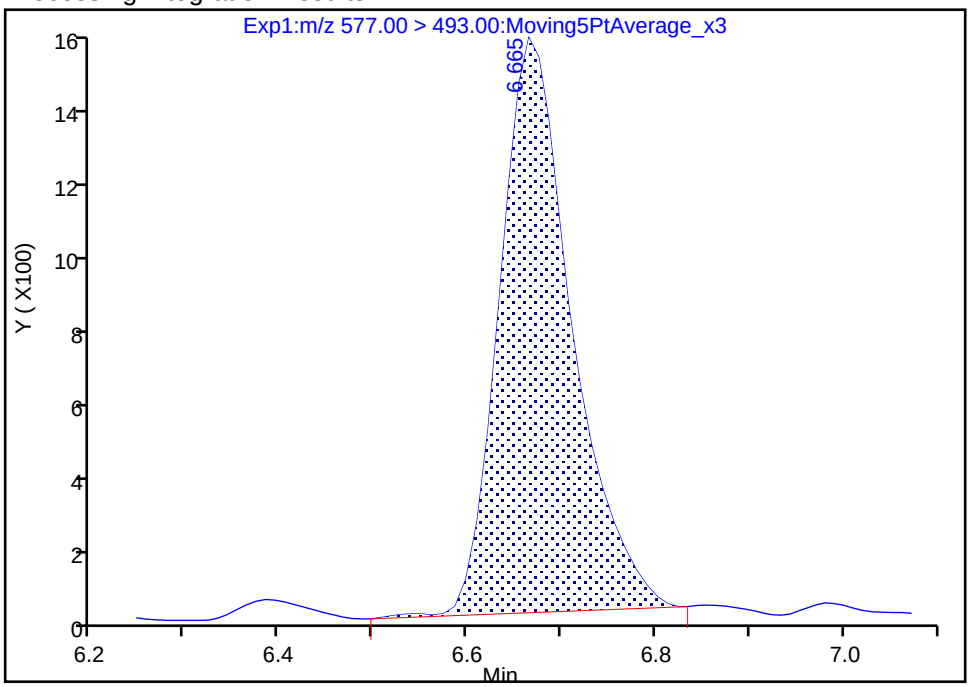
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

86 10:2 FTCA, CAS: 53826-13-4

Signal: 1

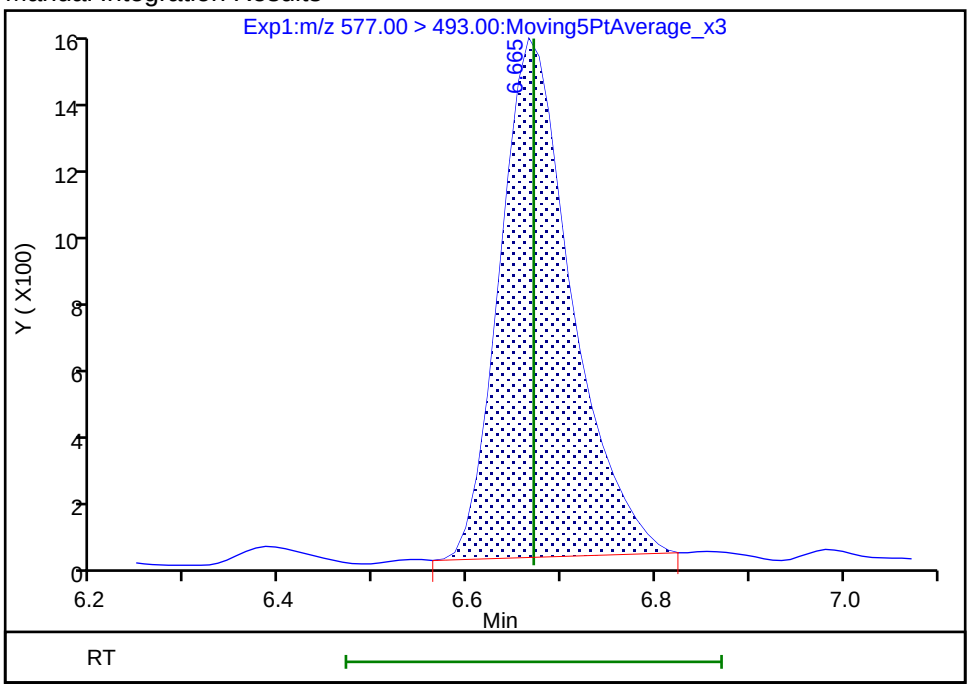
Processing Integration Results

RT: 6.67
Area: 8244
Amount: 0.199680
Amount Units: ng/ml



Manual Integration Results

RT: 6.67
Area: 8185
Amount: 0.198454
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:18:36

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

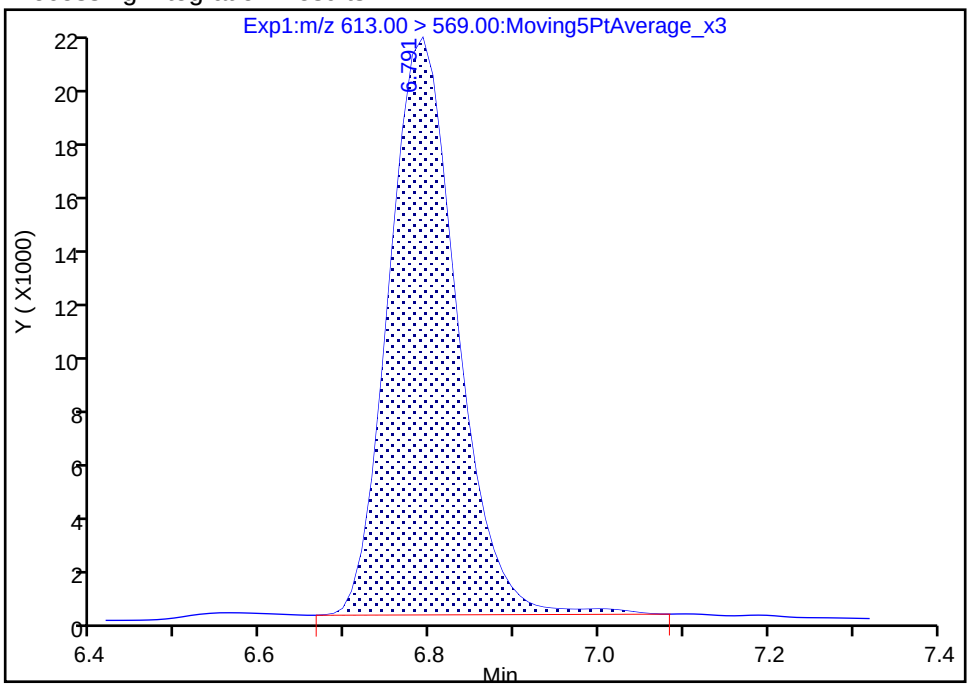
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

88 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

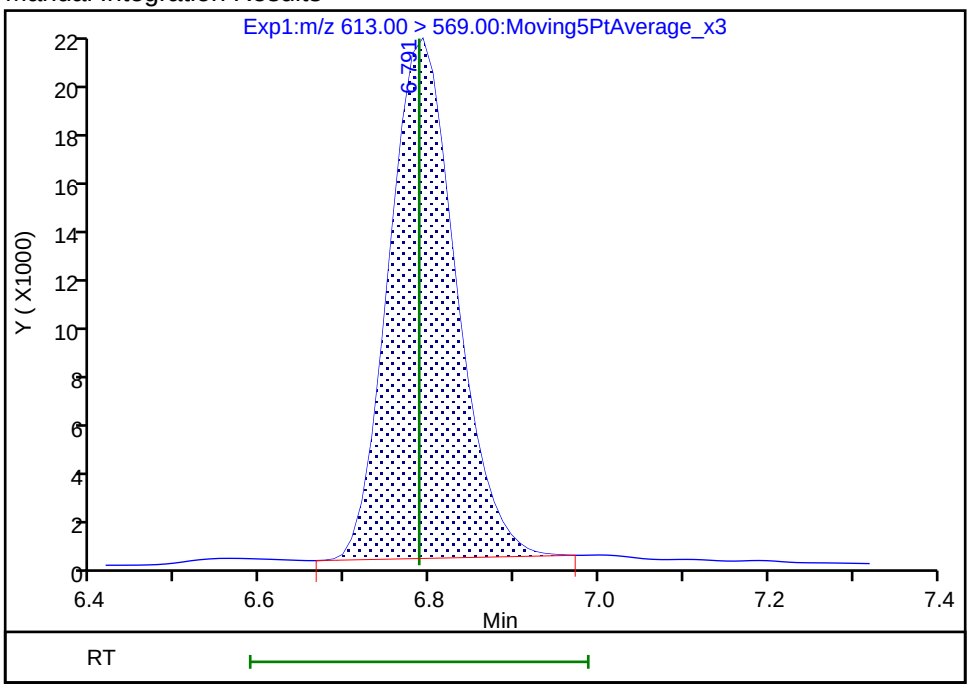
Processing Integration Results

RT: 6.79
Area: 119586
Amount: 0.202564
Amount Units: ng/ml



Manual Integration Results

RT: 6.79
Area: 117099
Amount: 0.198950
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:18:44

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

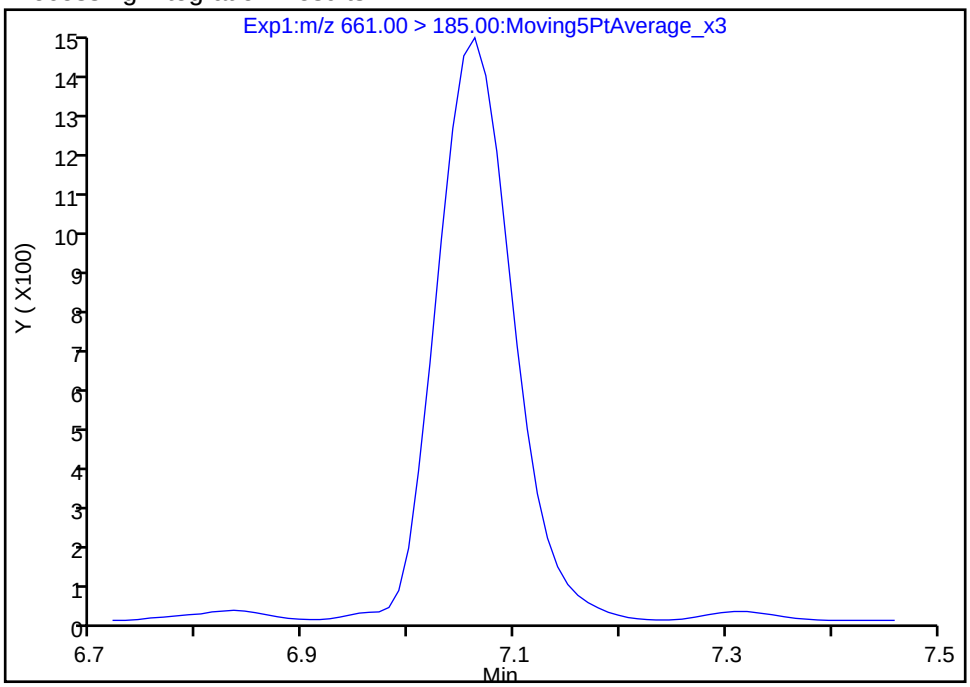
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

105 HFPOTeA, CAS: 51445-02-4

Signal: 1

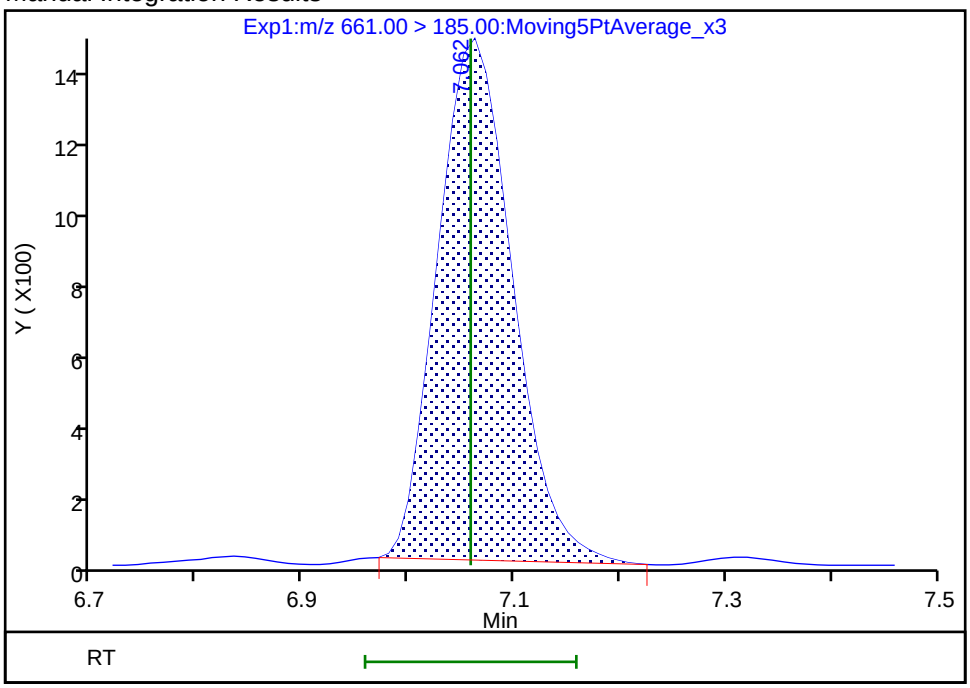
Not Detected
Expected RT: 7.06

Processing Integration Results



Manual Integration Results

RT: 7.06
Area: 7062
Amount: 2.149711
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:18:57
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

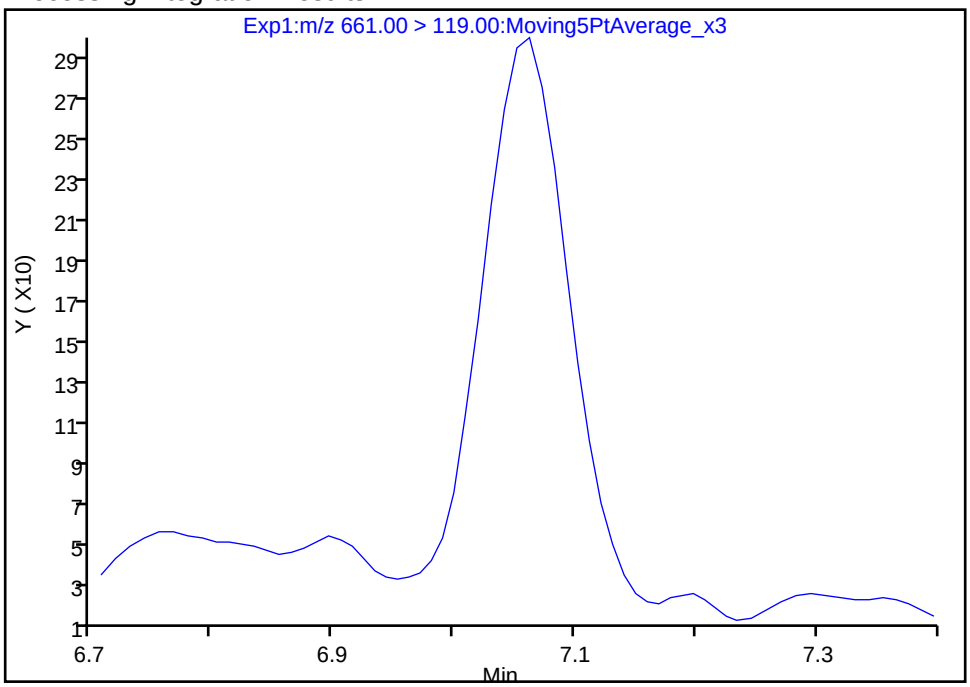
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

105 HFPOTeA, CAS: 51445-02-4

Signal: 2

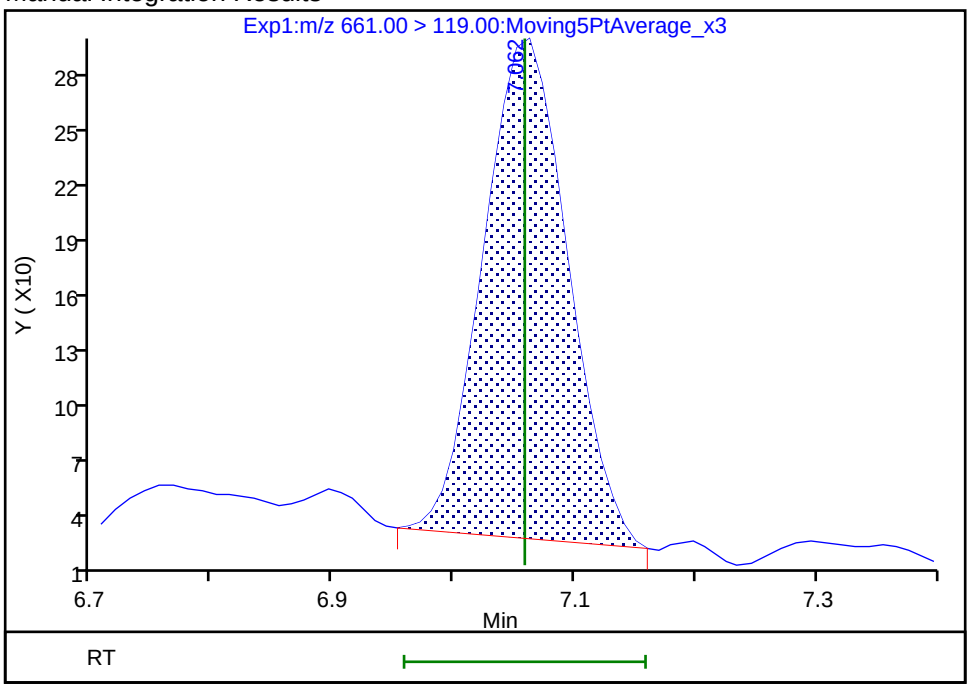
Processing Integration Results

Not Detected
Expected RT: 7.06



Manual Integration Results

RT: 7.06
Area: 1309
Amount: 2.149711
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:19:04
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

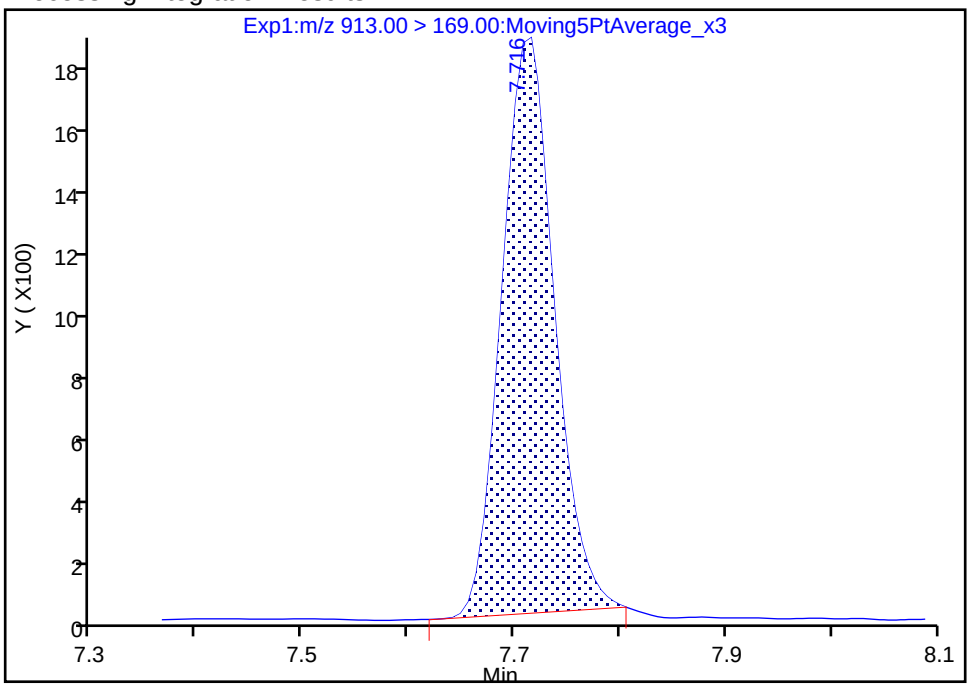
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-01.d				
Injection Date:	01-Mar-2022 21:15:20	Instrument ID:	30728		
Lims ID:	IC CAL 1				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

104 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

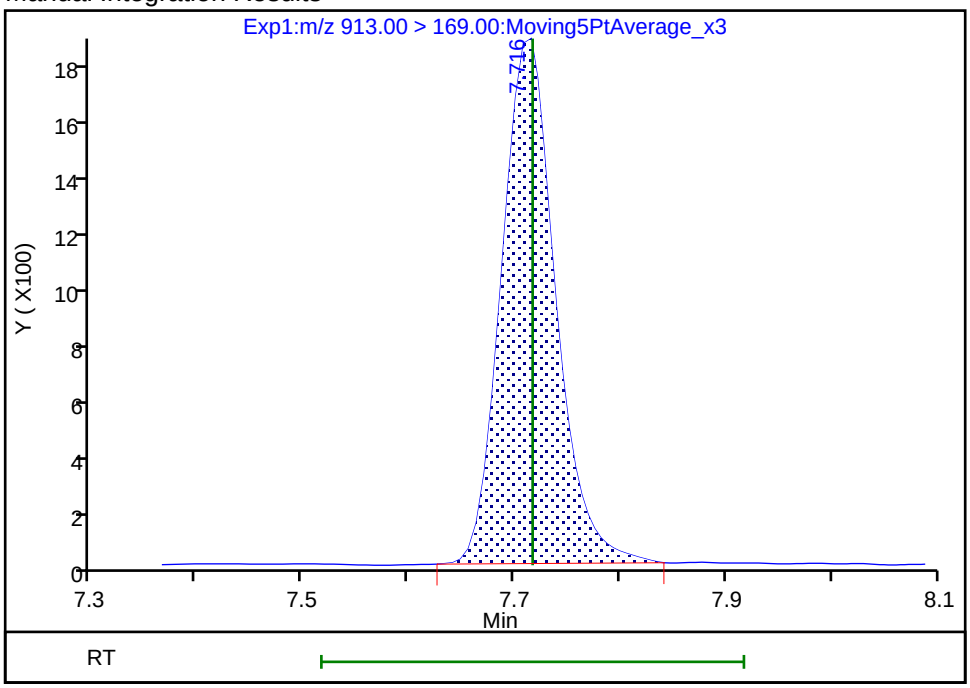
Processing Integration Results

RT: 7.72
Area: 6464
Amount: 0.192989
Amount Units: ng/ml



Manual Integration Results

RT: 7.72
Area: 6682
Amount: 0.192989
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:19:17

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-02.d
Lims ID: IC CAL 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 01-Mar-2022 21:26:25 ALS Bottle#: 20003 Worklist Smp#: 2
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL 2
Misc. Info.: Plate: 1 Rack: 1 410-0051412-002
Operator ID: US19_USR_INS20261 Instrument ID: 30728
Sublist: chrom-PFAS_30728_XList*sub16

Method: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 01-Mar-2022 23:52:49 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1606

First Level Reviewer: polaskia Date: 01-Mar-2022 23:21:28
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.065	1.065	0.0	0.279	96849	0.4611		94.1	1614	
1 MTP										
175.00 > 97.00	1.526	1.518	0.008	0.400	34035	0.4467		89.3	1091	
2 PPF Acid										M
163.00 > 119.00	1.871	1.874	-0.003	0.490	172380	0.4673		93.5	729	M
3 PFMOAA										
179.00 > 85.00	2.891	2.891	0.0	0.758	148613	0.4718		94.4	1255	
4 R-PSDA										
441.00 > 241.00	3.788	3.792	-0.004	0.849	10348	0.4222		84.4	599	
5 R-EVE										
405.00 > 217.00	3.795	3.793	0.002	0.995	30037	0.4188		83.8	2306	
7 Perfluorobutanoic acid										M
213.00 > 169.00	3.816	3.816	0.0	1.000	315369	0.4653		93.1	1110	M
D 6 13C4 PFBA										
217.00 > 172.00	3.816	3.816	0.0	1.000	7872169	10.1		101	152698	
* 8 13C3-PFBA										
216.00 > 172.00	3.816	3.817	-0.001		3615761	5.00			9035	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.816	3.817	-0.001	0.855	42000	0.4497		89.9	2076	
10 PMPA										
229.00 > 185.00	3.955	3.956	-0.001	1.036	180957	0.4501		90.0	2370	
11 PFPrS										
249.00 > 99.00	4.017	4.020	-0.003	1.053	72977	0.4037		88.1	3752	
12 NVHOS										
297.00 > 135.00	4.056	4.060	-0.004	0.908	78574	0.4831		96.6	3945	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 PFECA F										
229.00 > 85.00	4.085	4.082	0.003	1.070	358947	0.4806		96.1	16594	
14 PFO2HxA										
245.00 > 85.00	4.281	4.286	-0.005	1.122	135519	0.4573		91.5	6318	
15 3:3 FTCA										
241.00 > 177.00	4.396	4.403	-0.007	0.998	22680	0.4614		92.3	1383	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.407	4.404	0.003	1.000	343592	0.4755		95.1	1888	
D 17 13C5 PFPeA										
268.00 > 223.00	4.407	4.404	0.003	1.155	6221927	9.83		98.3	144343	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.456	4.460	-0.004	0.998	243048	0.4155	Target=3.14	93.9	5586	
299.00 > 99.00	4.456	4.460	-0.004	0.998	77408		3.14(1.57-4.71)	93.9	3189	
D 19 13C3 PFBS										
302.00 > 80.00	4.464	4.462	0.002	1.170	5624354	8.79		94.5	389309	
20 PEPA										M
279.00 > 235.00	4.520	4.517	0.003	1.184	65242	0.4647		92.9	1220	M
21 PFECA A										
279.00 > 85.00	4.539	4.543	-0.004	1.017	286411	0.4650		93.0	11790	
22 PES										
315.00 > 135.00	4.640	4.638	0.002	1.039	722344	0.4176		93.8	39268	
23 PFECA B										
201.00 > 85.00	4.771	4.771	0.0	1.069	466168	0.4912	Target=1.81	98.2	15913	
295.00 > 201.00	4.771	4.771	0.0	1.069	253943		1.84(0.90-2.71)	98.2	13022	
110 FBSA										
299.00 > 78.00	4.790	4.792	-0.002	1.073	14226	0.4764		95.3	979	
24 4:2 FTS										
327.00 > 307.00	4.800	4.803	-0.003	0.998	124258	0.4680	Target=1.33	100	8496	
327.00 > 81.00	4.800	4.803	-0.003	0.998	96119		1.29(0.66-1.99)	100	3554	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.810	4.806	0.004	0.854	935823	9.76		104	31643	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.840	4.843	-0.003	0.998	304932	0.4760	Target=12.64	95.2	4603	
313.00 > 119.00	4.840	4.843	-0.003	0.998	24753		12.32(6.32-18.96)	95.2	965	
D 27 13C5 PFHxA										
318.00 > 273.00	4.850	4.846	0.004	0.861	8264970	10.5		105	266583	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.860	4.863	-0.003	1.089	250358	0.4502	Target=3.66	96.0	16603	
349.00 > 99.00	4.860	4.863	-0.003	1.089	63774		3.93(1.83-5.49)	96.0	4228	
29 PFO3OA										
311.00 > 85.00	4.899	4.903	-0.004	1.284	170558	0.4678		93.6	10885	
30 HFPO-DA										
329.00 > 285.00	4.981	4.978	0.003	1.000	103989	0.4375		87.5	1717	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.981	4.983	-0.002	0.885	1924782	10.4		104	126850	
32 Hydro-EVE Acid										
427.00 > 283.00	5.202	5.201	0.001	1.363	501951	0.4638		92.8	32569	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
33 R-PSDCA										
397.00 > 217.00	5.213	5.209	0.004	1.168	718502	0.4821		96.4	22136	
108 FBSEE										
386.00 > 166.00	5.224	5.220	0.004	1.170	16288	0.5083	Target=1.76	102	974	
386.00 > 80.00	5.224	5.220	0.004	1.170	9642		1.69(0.88-2.64)	102	610	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.257	5.254	0.003	1.000	241011	0.4266	Target=3.57	93.5	445	
399.00 > 99.00	5.246	5.254	-0.008	0.998	68718		3.51(1.78-5.35)	93.5	121	
D 37 13C3 PFHxS										
402.00 > 80.00	5.257	5.254	0.003	0.934	5508806	9.83		104	340195	
D 38 13C4 PFHpA										
367.00 > 322.00	5.257	5.255	0.002	0.934	9659262	11.4		114	254867	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.257	5.254	0.003	1.000	409412	0.4626	Target=3.54	92.5	3791	
363.00 > 169.00	5.246	5.254	-0.008	0.998	110094		3.72(1.77-5.31)	92.5	5034	
34 Hydro-PS Acid										
463.00 > 263.00	5.267	5.246	0.021	1.180	474505	0.4692		93.8	99636	
39 DONA										
377.00 > 251.00	5.300	5.303	-0.003	1.008	479158	0.4288		90.8	12925	
40 PFECA G										
379.00 > 185.00	5.321	5.322	-0.001	1.395	651779	0.5132		103	32049	
41 5:3 FTCA										
341.00 > 237.00	5.342	5.338	0.004	1.016	74593	0.4515	Target=3.04	90.3	3683	
341.00 > 217.00	5.332	5.338	-0.006	1.014	24911		2.99(1.52-4.55)	90.3	1609	
42 6:2 FTUCA										M
357.00 > 293.00	5.361	5.359	0.002	1.000	282423	0.4616		92.3	6418	M
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.361	5.361	0.0	0.952	4936493	10.6		106	169787	
44 6:2 FTCA										
377.00 > 293.00	5.378	5.378	0.0	1.000	37153	0.4335		86.7	1588	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.378	5.379	-0.001	0.955	828987	11.4		114	43512	
46 PFO4DA										
377.00 > 85.00	5.437	5.435	0.002	1.425	220912	0.4977		99.5	1196	
47 PS Acid										
443.00 > 147.00	5.480	5.479	0.001	1.228	172192	0.4798		96.0	12238	
48 EVE Acid										
407.00 > 263.00	5.499	5.500	-0.001	1.441	520953	0.4680		93.6	36919	
49 PFECHS										
461.00 > 381.00	5.568	5.569	-0.001	1.059	303699	0.3993	Target=1.56	86.4	15806	
461.00 > 99.00	5.568	5.569	-0.001	1.059	206937		1.47(0.78-2.34)	86.4	11046	
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.621	5.618	0.003	1.069	244684	0.4371	Target=3.73	91.8	16896	
449.00 > 99.00	5.612	5.618	-0.006	1.068	64195		3.81(1.87-5.60)	91.8	4480	
50 6:2 FTS										
427.00 > 407.00	5.612	5.613	-0.001	1.000	61655	0.4574	Target=1.19	96.5	4378	
427.00 > 81.00	5.612	5.613	-0.001	1.000	49346		1.25(0.60-1.79)	96.5	3343	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 52 M2-6:2 FTS										
429.00 > 81.00	5.612	5.614	-0.002	0.997	351712	10.2		108	24092	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.630	5.630	0.0	1.000	319815	0.4755	Target=2.20	95.1	15562	
413.00 > 169.00	5.621	5.630	-0.009	0.998	129471		2.47(1.10-3.30)	95.1	23348	
* 55 13C2 PFOA										
415.00 > 370.00	5.630	5.631	-0.001		3399824	5.00			173806	
D 54 13C8 PFOA										
421.00 > 376.00	5.630	5.631	-0.001	1.000	9010326	10.8		108	261888	
106 FHxSA										
399.00 > 78.00	5.689	5.690	-0.001	1.082	15365	0.4136		82.7	1018	
56 TAF										
443.00 > 85.00	5.883	5.879	0.004	1.542	210054	0.5003		100	14501	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.957	5.954	0.003	1.000	249394	0.4105	Target=4.38	88.7	314	
499.00 > 99.00	5.948	5.954	-0.006	0.999	60212		4.14(2.19-6.58)	88.7	129	
* 59 13C4 PFOS										
503.00 > 80.00	5.957	5.955	0.002		2998605	4.78			129779	
D 58 13C8 PFOS										
507.00 > 80.00	5.957	5.955	0.002	1.000	5942811	9.78		102	80561	
61 Perfluorononanoic acid										
463.00 > 419.00	5.974	5.973	0.001	1.000	266736	0.4979	Target=3.95	99.6	7144	
463.00 > 169.00	5.965	5.973	-0.008	0.999	62508		4.27(1.97-5.92)	99.6	3412	
D 60 13C9 PFNA										
472.00 > 427.00	5.974	5.975	-0.001	1.003	6149718	10.3		103	435614	
109 HFPO-TrA										M
496.00 > 185.00	6.074	6.068	0.006	1.219	24558	8.42		105	1654	M
62 7:3 FTCA										
441.00 > 337.00	6.083	6.077	0.006	1.131	81790	0.4063		81.3	5378	
63 8:2 FTUCA										
457.00 > 393.00	6.083	6.084	-0.001	1.000	235826	0.4793		95.9	9749	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.083	6.085	-0.002	0.969	5217524	10.6		106	262879	
65 8:2 FTCA										
477.00 > 393.00	6.103	6.099	0.004	1.000	27841	0.4621		92.4	1830	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.103	6.102	0.001	0.972	603445	10.9		109	41022	
67 9ClFOS										
531.00 > 351.00	6.133	6.130	0.003	1.030	380501	0.4354		93.6	5460	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.256	6.254	0.002	1.050	260017	0.4317	Target=4.33	89.9	19339	
549.00 > 99.00	6.256	6.254	0.002	1.050	59533		4.37(2.16-6.49)	89.9	4438	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.281	6.279	0.002	1.000	316722	0.4889	Target=7.98	97.8	6377	
513.00 > 169.00	6.281	6.279	0.002	1.000	37637		8.42(3.99-11.97)	97.8	2022	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
72 8:2 FTS										
527.00 > 507.00	6.281	6.282	-0.001	0.999	53379	0.5031	Target=1.01	105	3908	
527.00 > 81.00	6.281	6.282	-0.001	0.999	47957		1.11(0.50-1.51)	105	2084	
* 70 13C2 PFDA										
515.00 > 470.00	6.281	6.282	-0.001		4017398	5.00			286798	
D 71 13C6 PFDA										
519.00 > 474.00	6.281	6.282	-0.001	1.000	7702903	10.0		100	549793	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.290	6.285	0.005	1.001	178767	8.99		93.8	12552	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.374	6.371	0.003	1.000	478394	0.4789		95.8	18849	
D 74 13C8 FOSA										
506.00 > 78.00	6.374	6.375	-0.001	1.015	10070283	10.2		102	488532	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.426	6.428	-0.002	1.023	2018527	9.36		93.6	77444	
76 NMeFOSAA										M
570.00 > 419.00	6.437	6.429	0.007	1.002	80842	0.4541	Target=1.69	90.8	8748	M
570.00 > 483.00	6.426	6.429	-0.003	1.000	46770		1.73(0.85-2.54)	90.8	92.8	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.527	6.522	0.005	1.096	247176	0.4167	Target=4.28	86.4	15414	
599.00 > 99.00	6.516	6.522	-0.006	1.094	57446		4.30(2.14-6.42)	86.4	3686	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.551	6.550	0.001	0.998	288107	0.4638	Target=7.28	92.8	3126	
563.00 > 169.00	6.551	6.550	0.001	0.998	36638		7.86(3.64-10.92)	92.8	2136	
D 80 13C7 PFUnA										
570.00 > 525.00	6.563	6.557	0.006	1.045	8339694	10.3		103	250888	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.574	6.569	0.005	1.047	1539115	10.0		100.0	68763	
82 NEtFOSAA										
584.00 > 419.00	6.574	6.570	0.004	1.000	69081	0.4675	Target=1.63	93.5	23782	
584.00 > 526.00	6.574	6.570	0.004	1.000	40857		1.69(0.82-2.45)	93.5	46.9	
83 10:2 FTUCA										
557.00 > 493.00	6.654	6.654	0.0	0.998	184950	0.4439		88.8	11361	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.665	6.660	0.005	1.061	4334198	10.0		100	201120	
84 11ClFOS										
631.00 > 451.00	6.665	6.660	0.005	1.119	262589	0.4071		87.6	16479	
86 10:2 FTCA										
577.00 > 493.00	6.675	6.670	0.005	1.000	19043	0.4839		96.8	1229	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.675	6.670	0.005	1.063	404633	10.1		101	24966	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.791	6.787	0.004	0.998	263793	0.4878	Target=4.76	97.6	7989	
613.00 > 169.00	6.791	6.787	0.004	0.998	60004		4.40(2.38-7.14)	97.6	2769	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.803	6.796	0.007	1.083	5927934	9.59		95.9	270802	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
90 10:2 FTS										
627.00 > 607.00	6.813	6.810	0.003	1.083	33807	0.4289	Target=0.75	89.0	2147	
627.00 > 81.00	6.813	6.810	0.003	1.083	48877		0.69(0.38-1.13)	89.0	3029	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.813	6.813	0.0	1.085	1627285	10.1		101	14586	
92 N-MeFOSE-M										
616.00 > 59.00	6.823	6.820	0.003	1.002	72340	0.4380		87.6	1361	
94 NMeFOSA										
512.00 > 169.00	6.834	6.829	0.005	1.000	43226	0.4491		89.8	2719	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.834	6.829	0.005	1.088	986591	9.63		96.3	19175	
95 PFDoS										
699.00 > 80.00	6.971	6.967	0.004	1.170	220332	0.4158		85.9	11552	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.980	6.973	0.007	1.111	1860126	10.2		102	31564	
97 N-EtFOSE-M										
630.00 > 59.00	6.980	6.981	-0.001	1.000	83874	0.4480		89.6	2770	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.999	6.995	0.004	1.114	921737	9.68		96.8	20869	
100 N-EtFOSA-M										
526.00 > 169.00	6.999	6.996	0.003	1.000	45163	0.4687		93.7	2271	
99 Perfluorotridecanoic acid										
663.00 > 619.00	6.999	6.996	0.003	1.029	223812	0.4770	Target=4.11	95.4	5105	
663.00 > 169.00	6.999	6.996	0.003	1.029	54383		4.12(2.06-6.17)	95.4	3790	
105 HFPOTeA										
661.00 > 185.00	7.062	7.058	0.004	1.418	21276	6.82	Target=4.76	86.1	1418	
661.00 > 119.00	7.062	7.058	0.004	1.418	4635		4.59(2.38-7.14)	86.1	306	
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.188	7.181	0.007	1.000	194470	0.4832	Target=4.34	96.6	4399	
713.00 > 169.00	7.178	7.181	-0.003	0.999	45938		4.23(2.17-6.50)	96.6	3190	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.188	7.184	0.004	1.144	4558412	9.16		91.6	233355	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.490	7.483	0.007	1.042	132310	0.4985	Target=5.44	99.7	4559	
813.00 > 169.00	7.480	7.483	-0.003	1.041	24331		5.44(2.72-8.16)	99.7	1705	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.722	7.717	0.005	1.074	93212	0.4885	Target=6.37	97.7	6694	
913.00 > 169.00	7.716	7.717	-0.001	1.073	14021		6.65(3.18-9.55)	97.7	1342	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD2_00013 Amount Added: 200.00 Units: uL

Report Date: 01-Mar-2022 23:52:51 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-02.d

Injection Date: 01-Mar-2022 21:26:25 Instrument ID: 30728

Lims ID: IC CAL 2

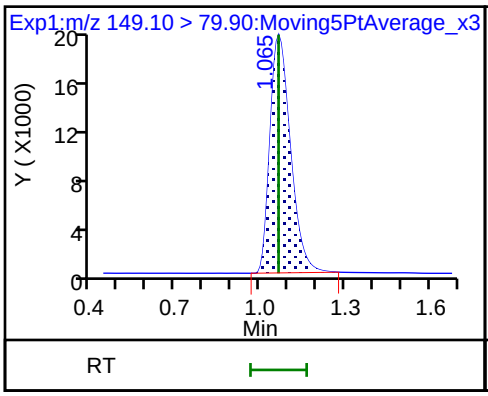
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20003 Worklist Smp#: 2

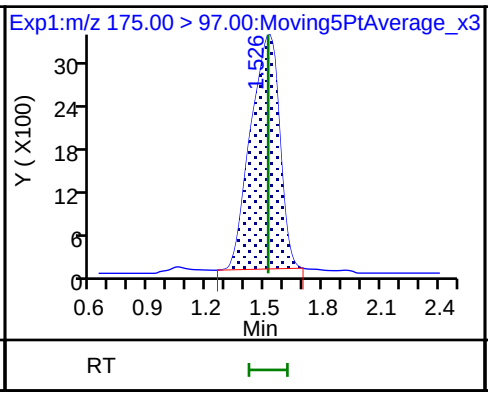
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

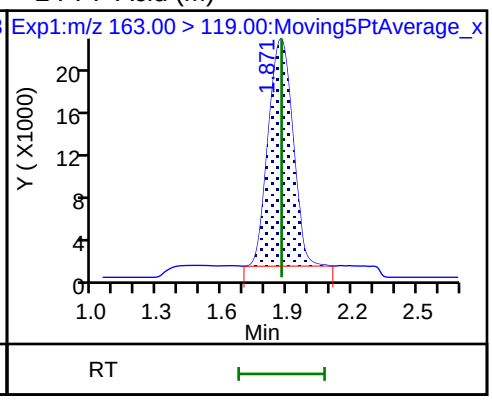
107 Sodium trifluoromethanesulfonate



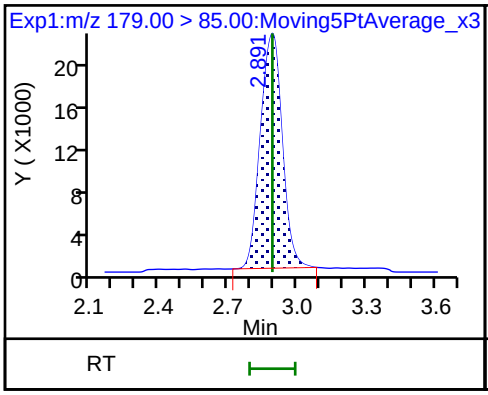
1 MTP



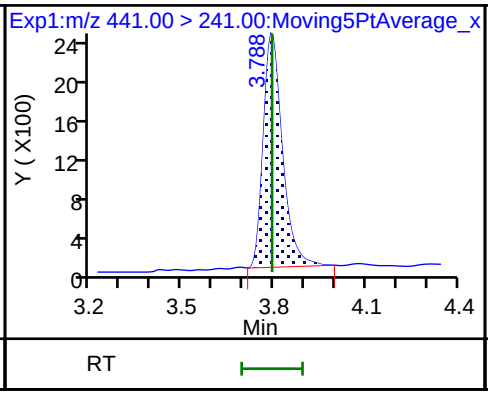
2 PPF Acid (M)



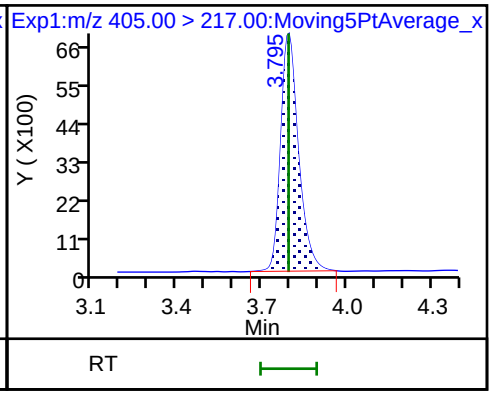
3 PFMOAA



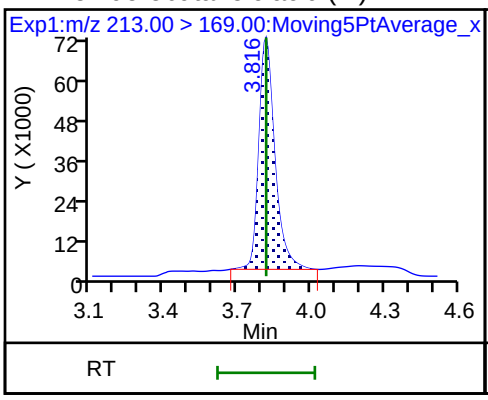
4 R-PSDA



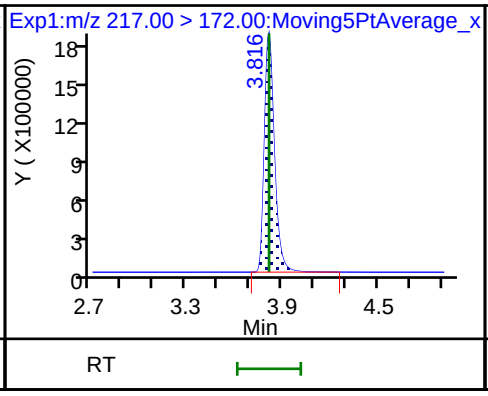
5 R-EVE



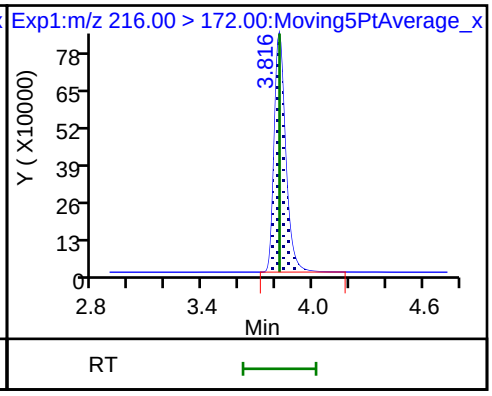
7 Perfluorobutanoic acid (M)



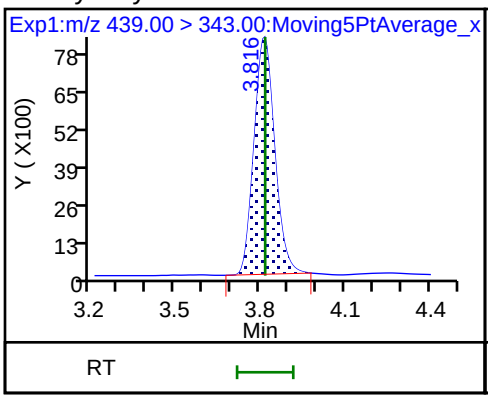
D 6 13C4 PFBA



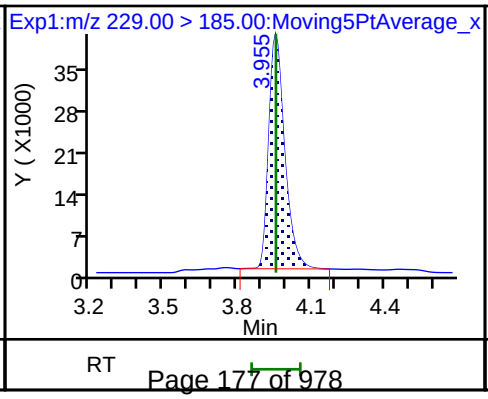
* 8 13C3-PFBA



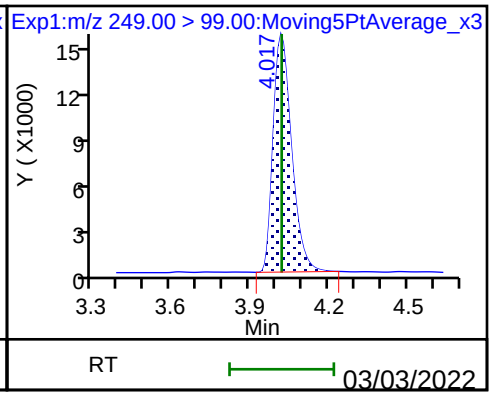
9 Hydrolyzed PSDA



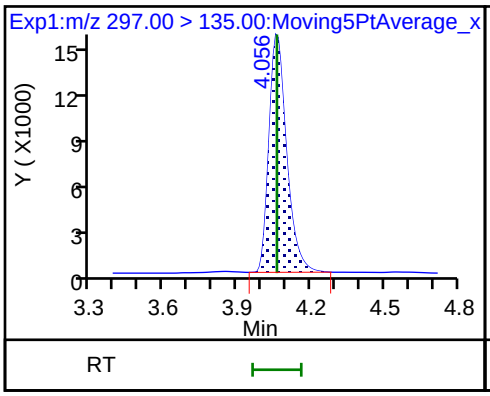
10 PMPA



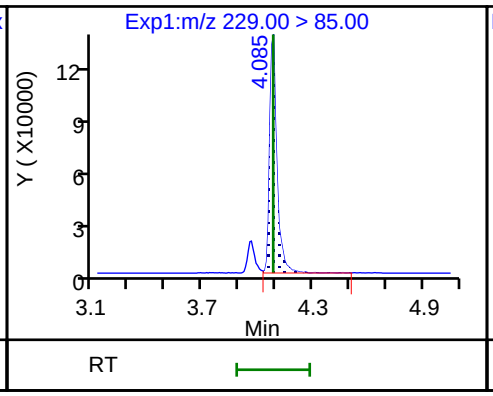
11 PFPrS



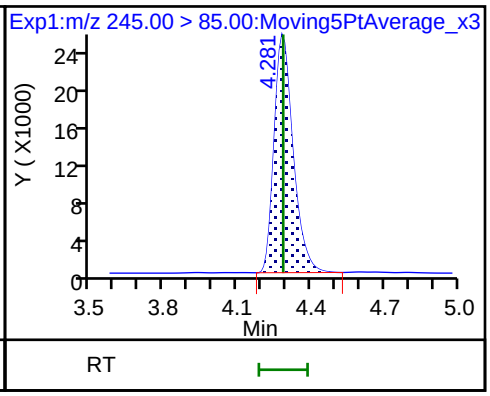
12 NVHOS



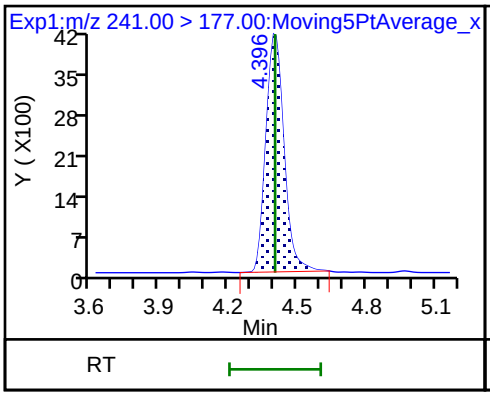
13 PFECA F



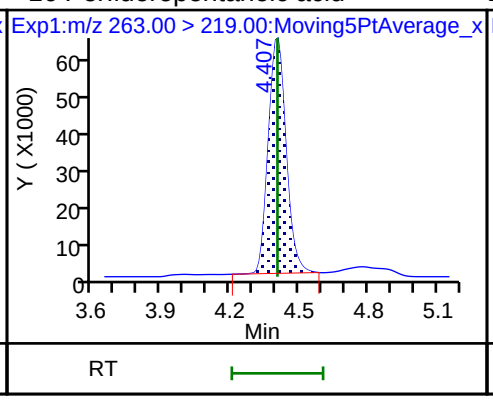
14 PFO2HxA



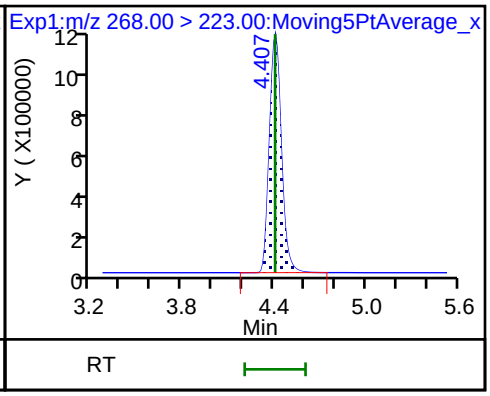
15 3:3 FTCA



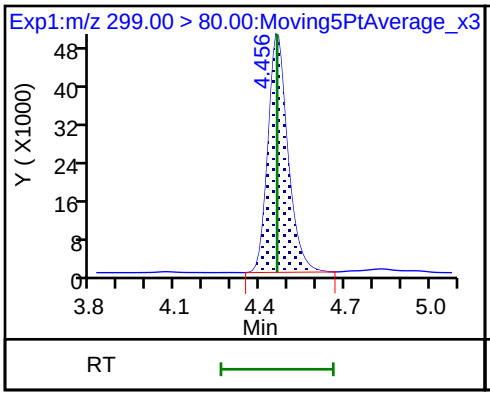
16 Perfluoropentanoic acid



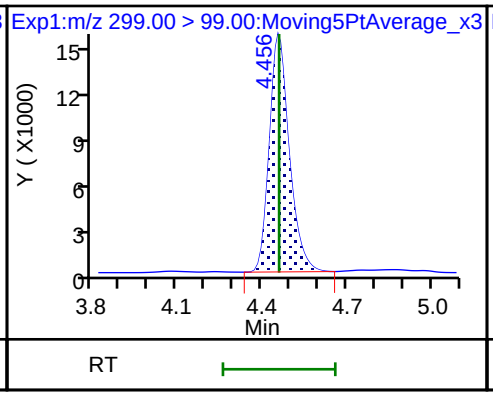
D 17 13C5 PFPeA



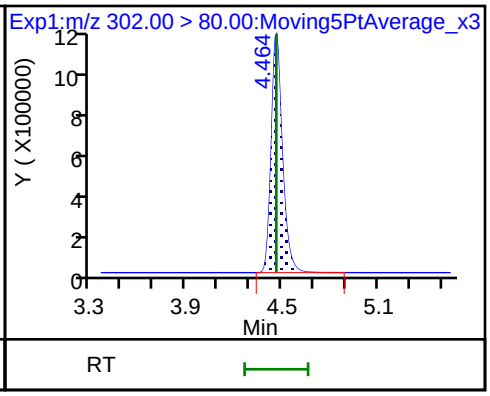
18 Perfluorobutanesulfonic acid



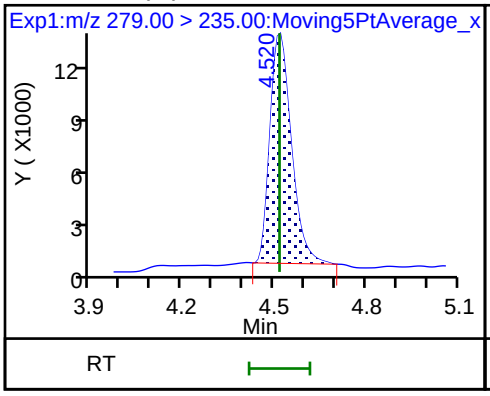
18 Perfluorobutanesulfonic acid



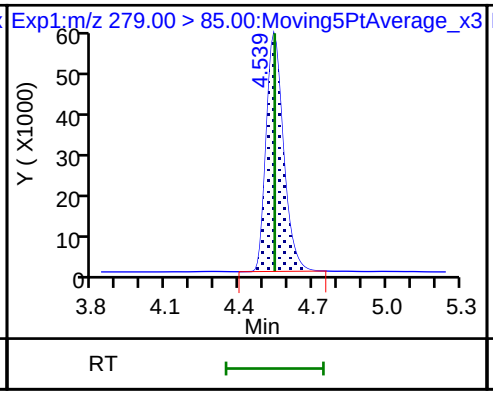
D 19 13C3 PFBS



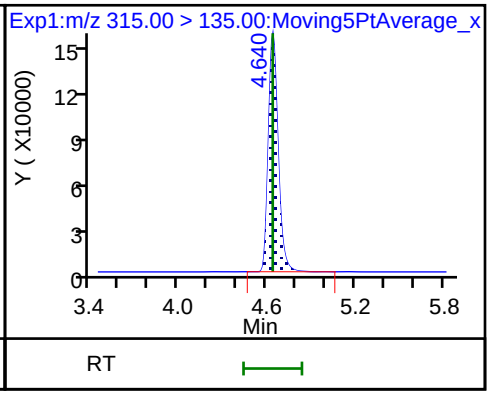
20 PEPA (M)



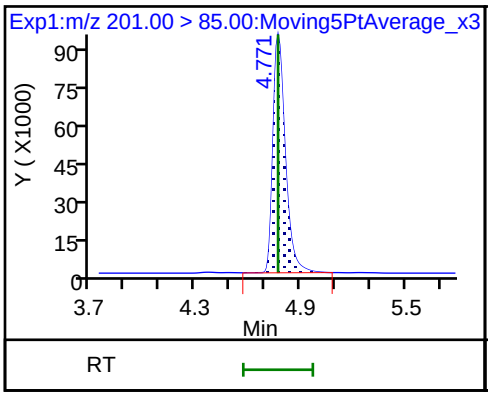
21 PFECA A



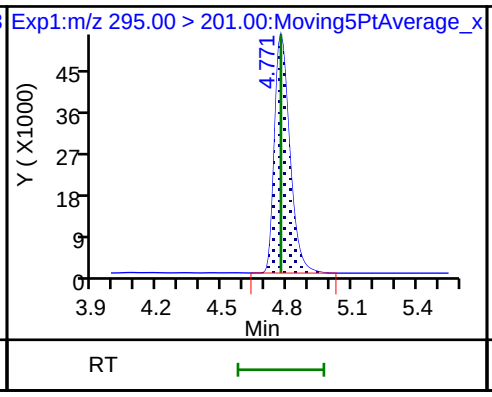
22 PES



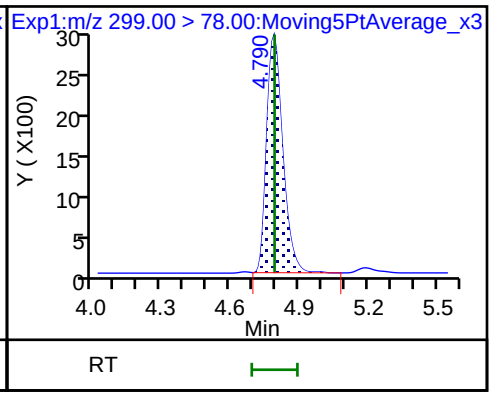
23 PFECA B



23 PFECA B



110 FBSA



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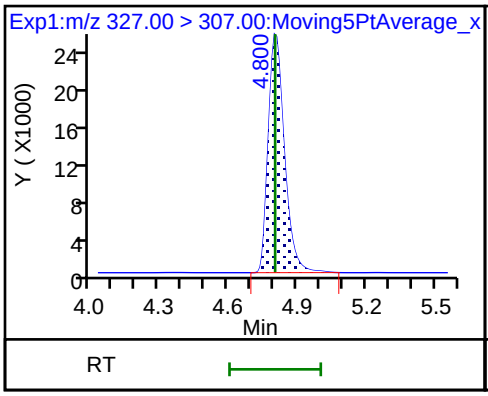
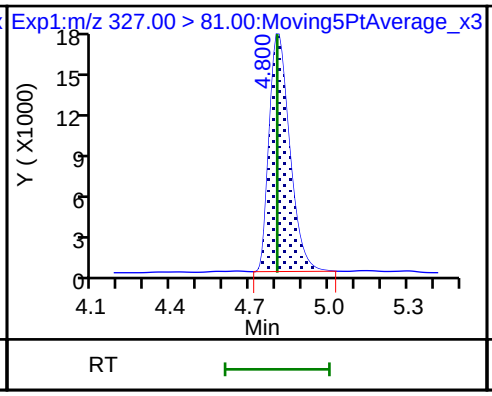
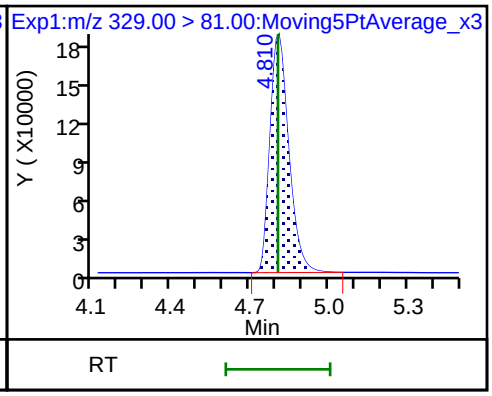


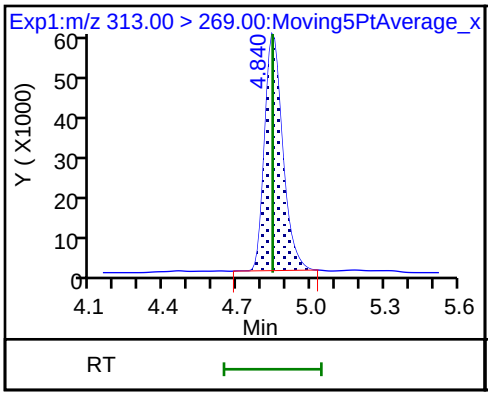
24 4:2 FTS



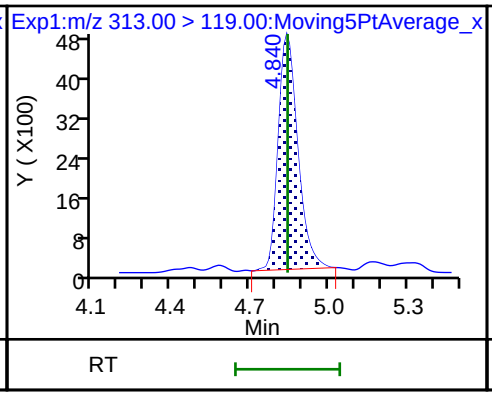
D 25 M2-4:2 FTS



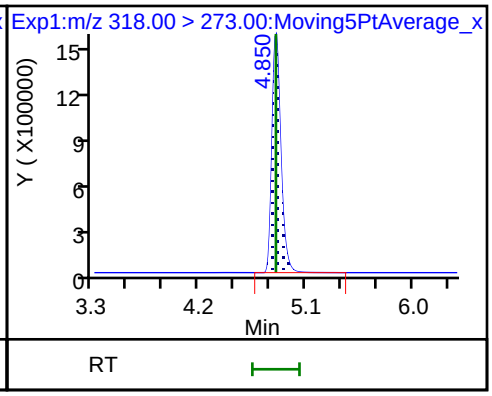
26 Perfluorohexanoic acid



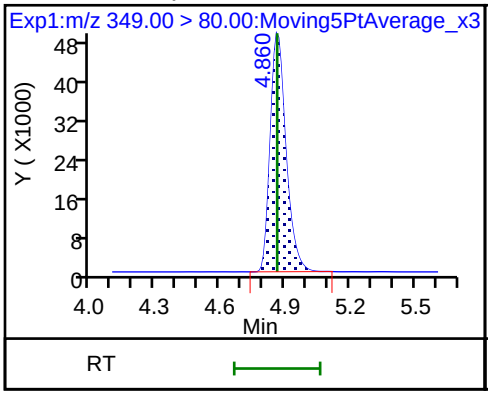
26 Perfluorohexanoic acid



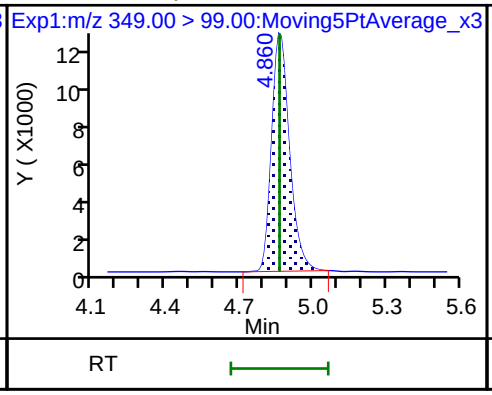
D 27 13C5 PFHxA



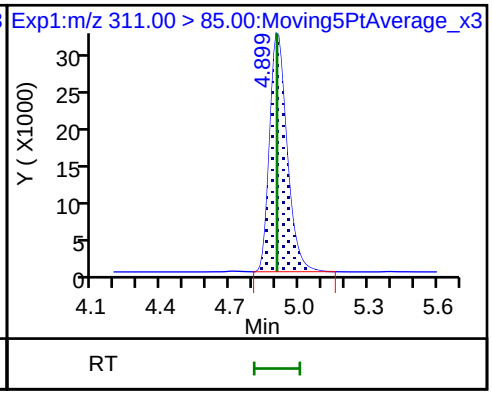
28 Perfluoropentanesulfonic acid



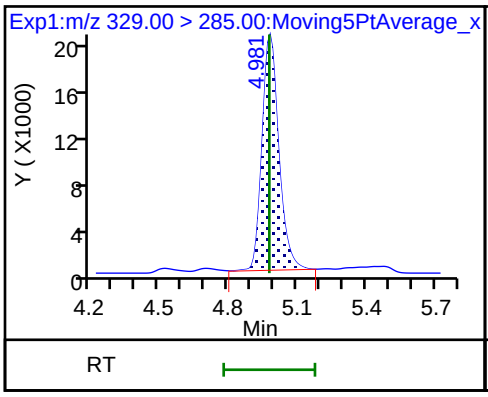
28 Perfluoropentanesulfonic acid



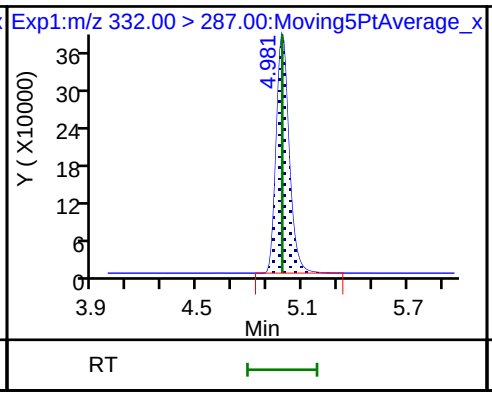
29 PFO3OA



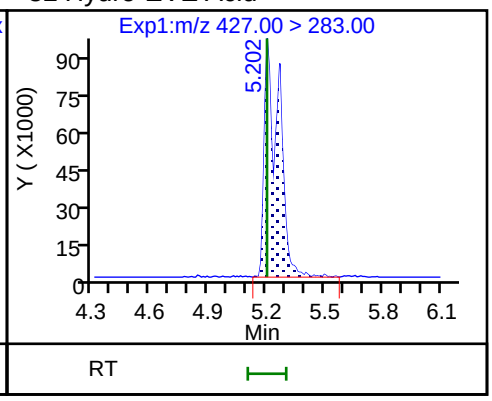
30 HFPO-DA



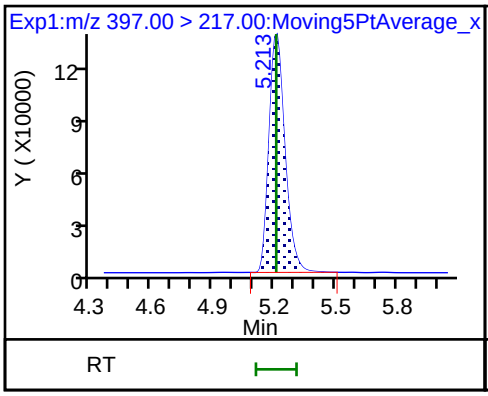
D 31 13C3 HFPO-DA



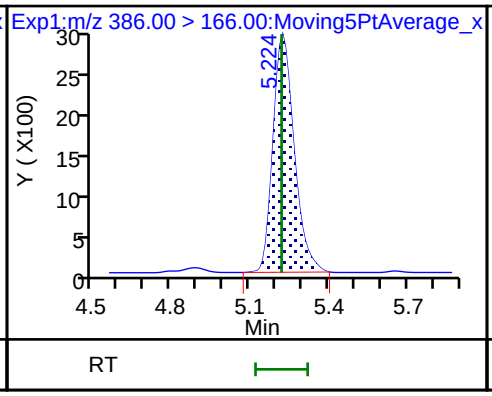
32 Hydro-EVE Acid



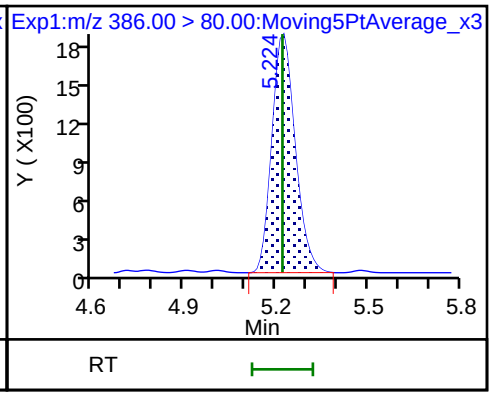
33 R-PSDCA



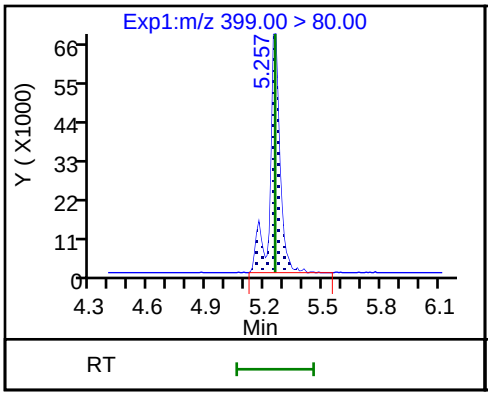
108 FBSEE



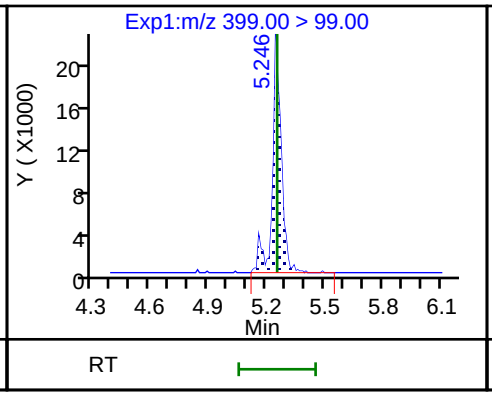
108 FBSEE



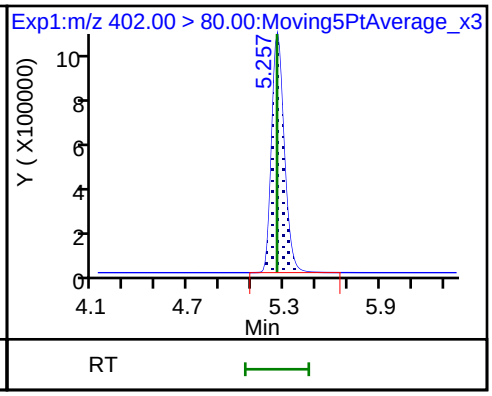
35 Perfluorohexanesulfonic acid



35 Perfluorohexanesulfonic acid



D 37 13C3 PFHxS



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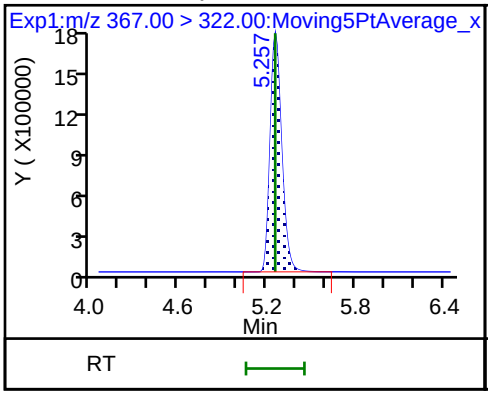
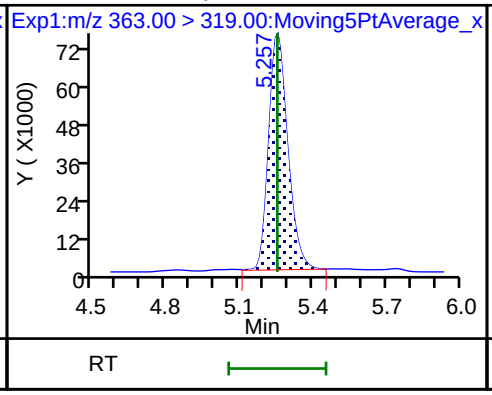
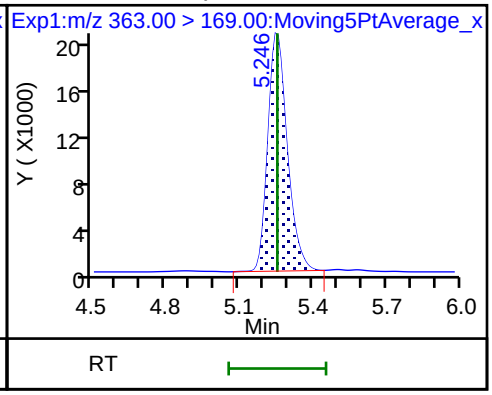


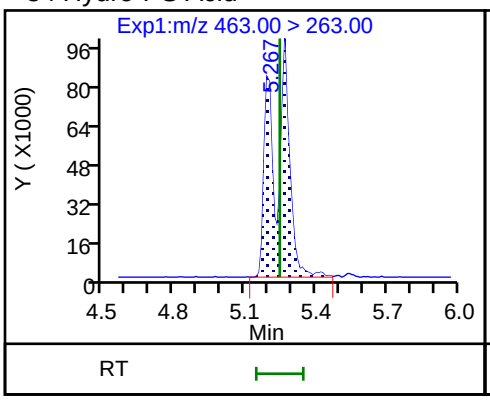
36 Perfluoroheptanoic acid



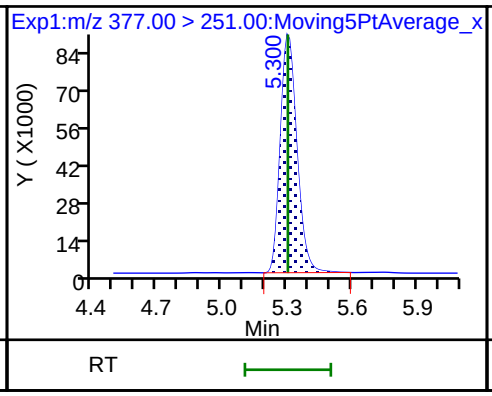
36 Perfluoroheptanoic acid



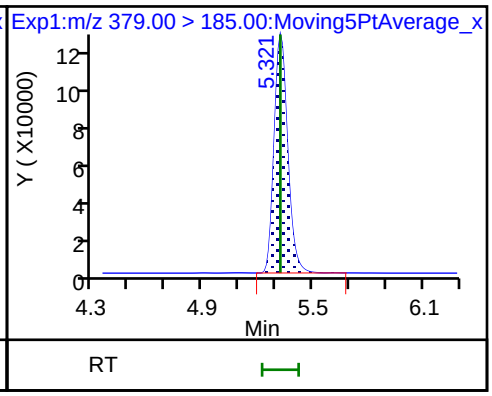
34 Hydro-PS Acid



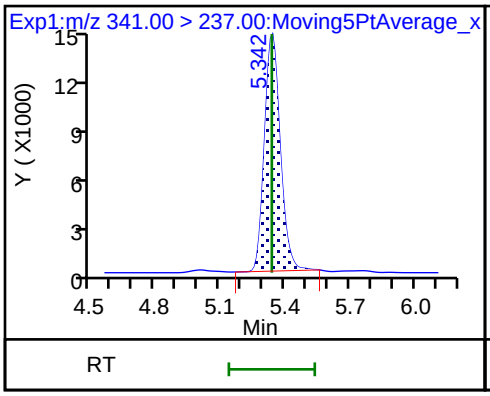
39 DONA



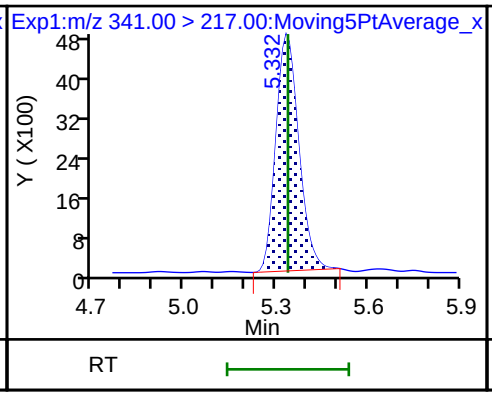
40 PFECA G



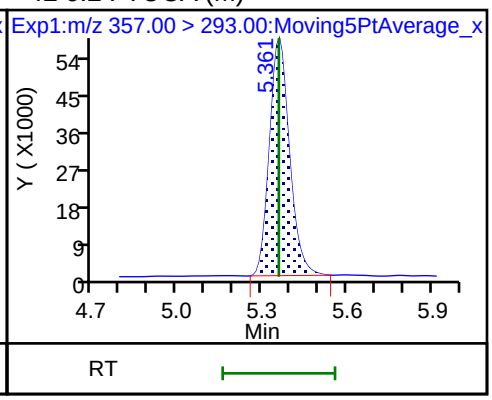
41 5:3 FTCA



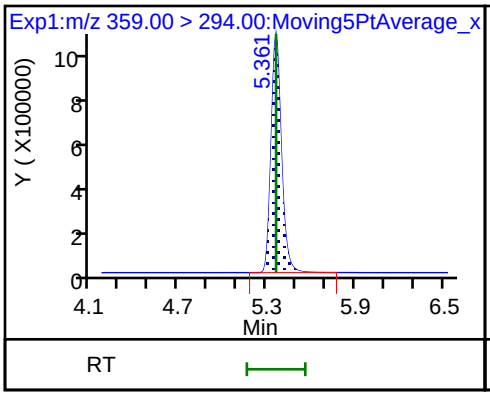
41 5:3 FTCA



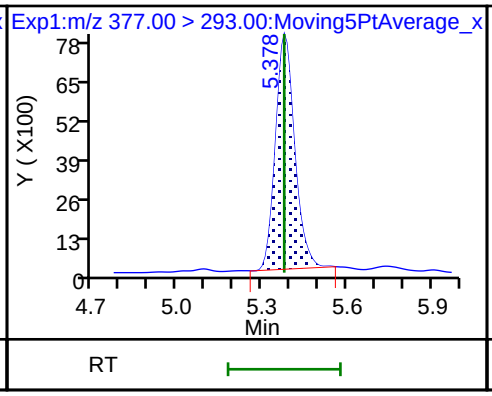
42 6:2 FTUCA (M)



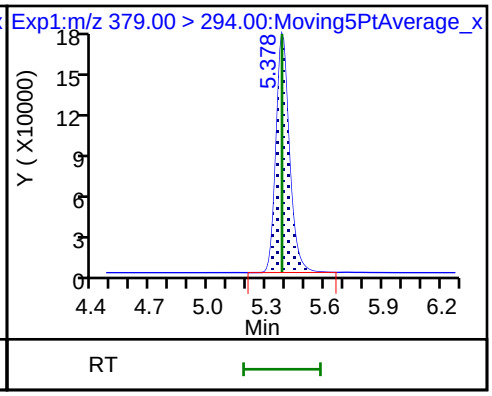
D 43 13C-6:2 FTUCA



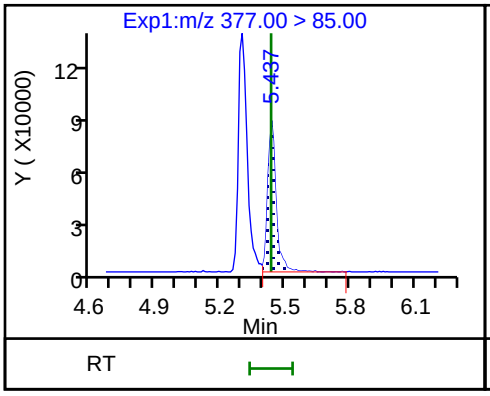
44 6:2 FTCA



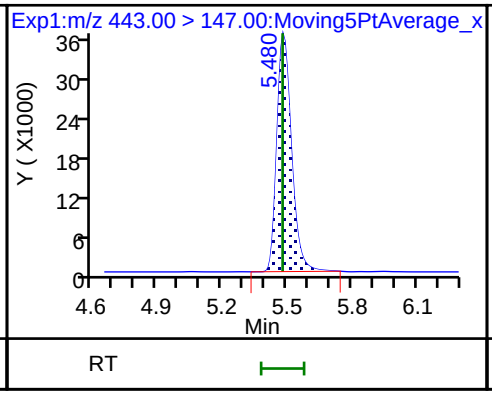
D 45 13C-6:2 FTCA



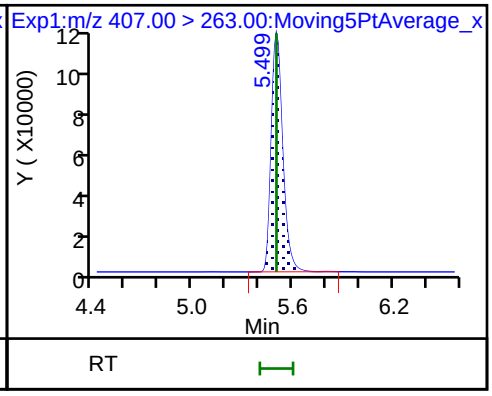
46 PFO4DA



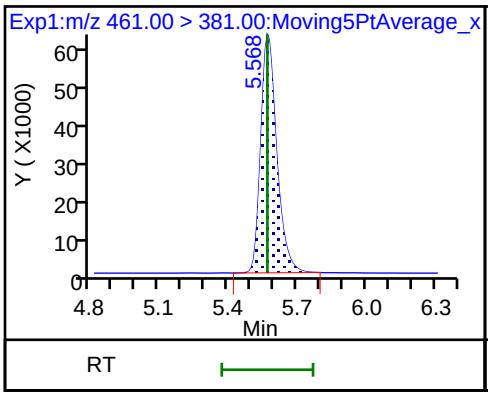
47 PS Acid



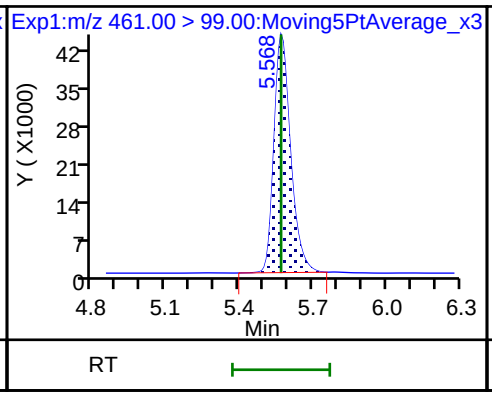
48 EVE Acid



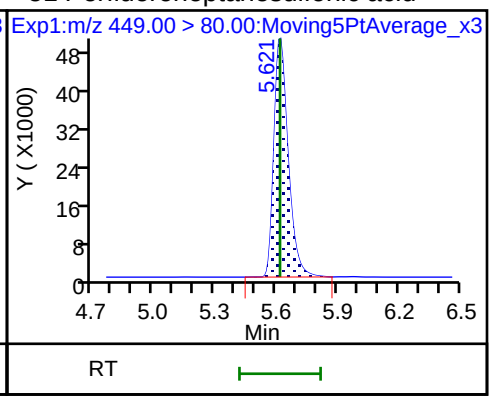
49 PFECHS



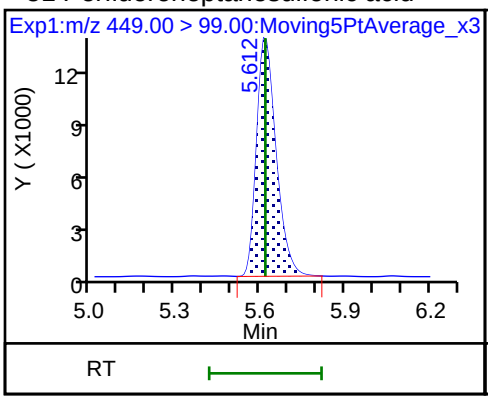
49 PFECHS



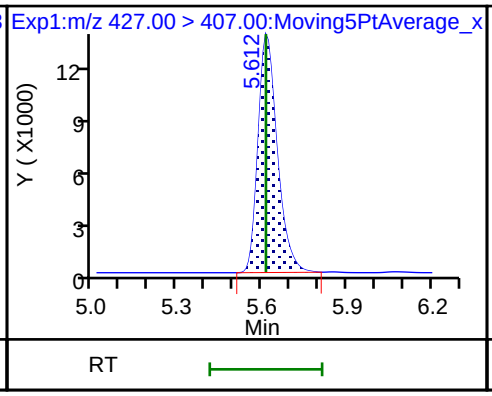
51 Perfluoroheptanesulfonic acid



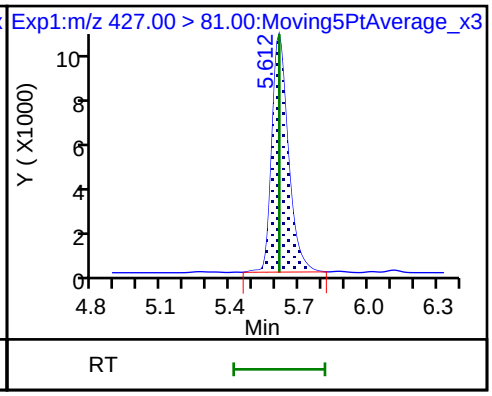
51 Perfluoroheptanesulfonic acid



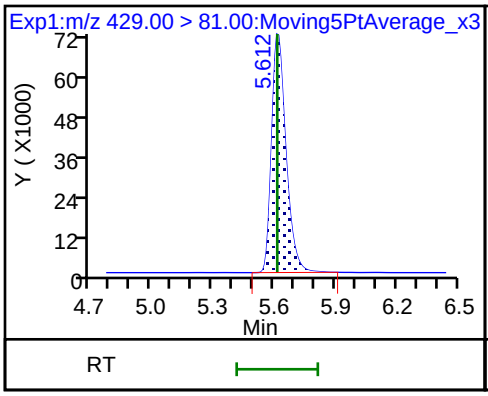
50 6:2 FTS



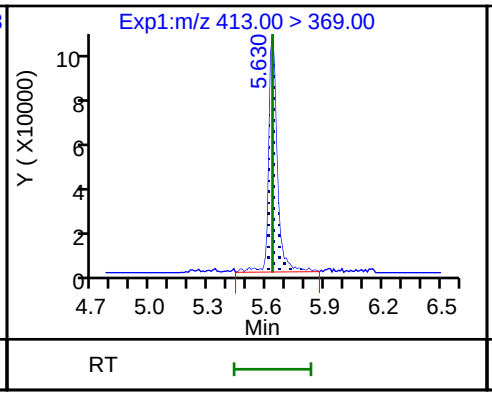
50 6:2 FTS



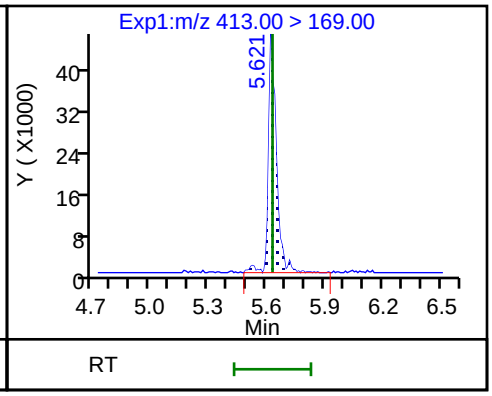
D 52 M2-6:2 FTS



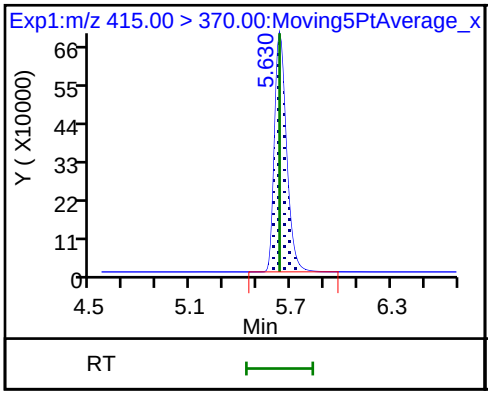
53 Perfluorooctanoic acid



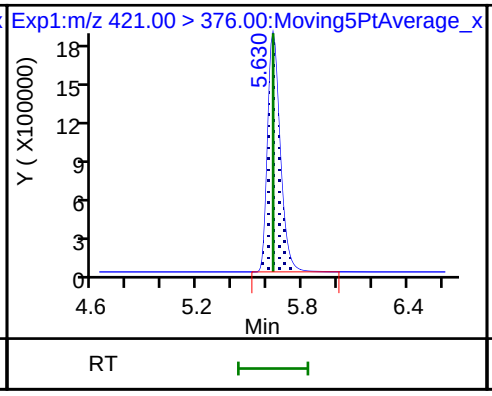
53 Perfluorooctanoic acid



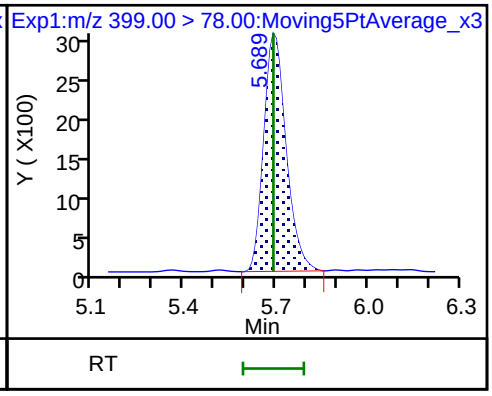
* 55 13C2 PFOA



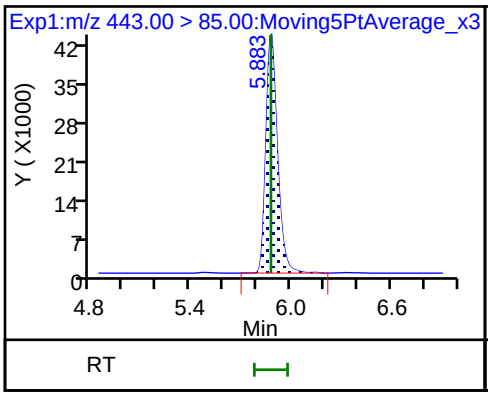
D 54 13C8 PFOA



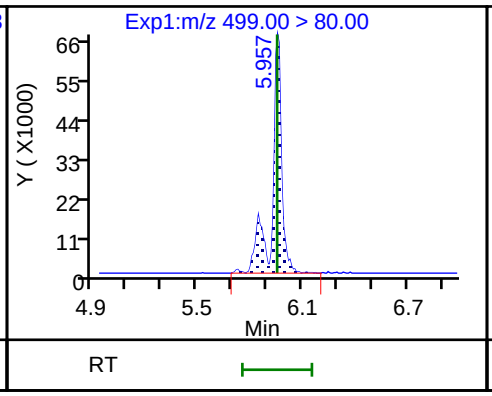
106 FHxSA



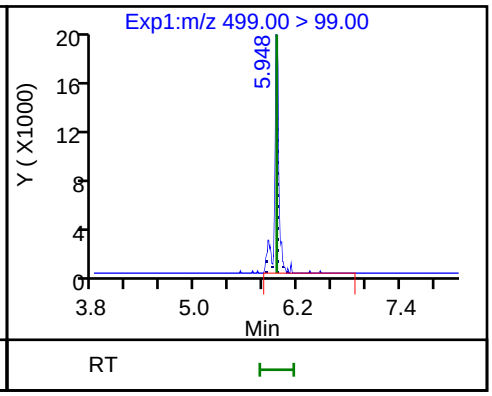
56 TAF



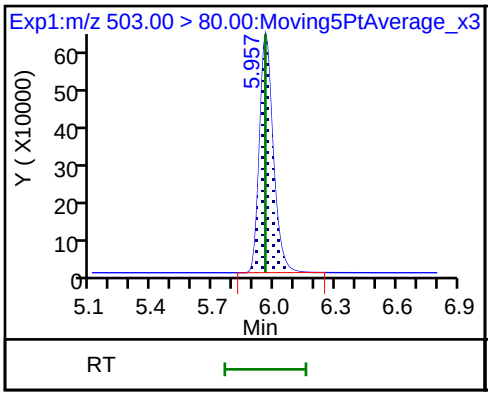
57 Perfluorooctanesulfonic acid



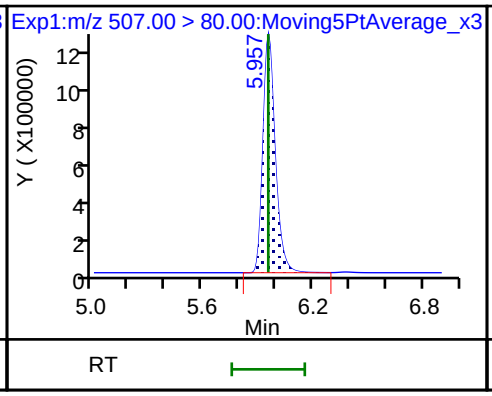
57 Perfluorooctanesulfonic acid



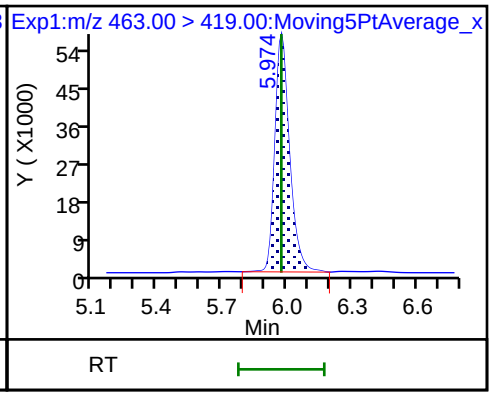
* 59 13C4 PFOS



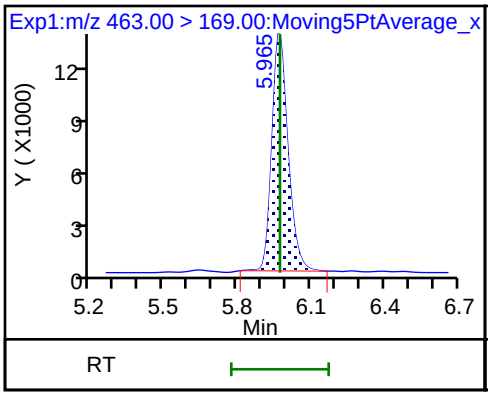
D 58 13C8 PFOS



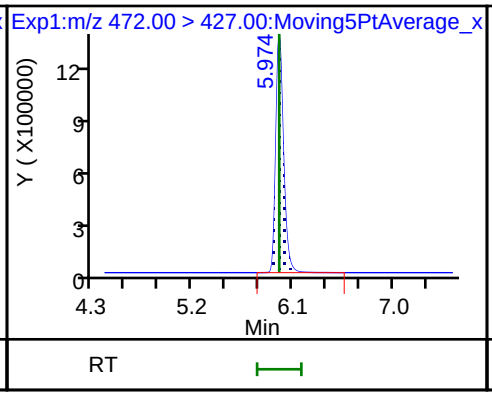
61 Perfluorononanoic acid



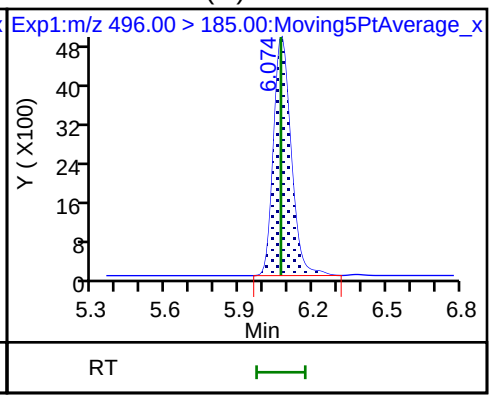
61 Perfluorononanoic acid



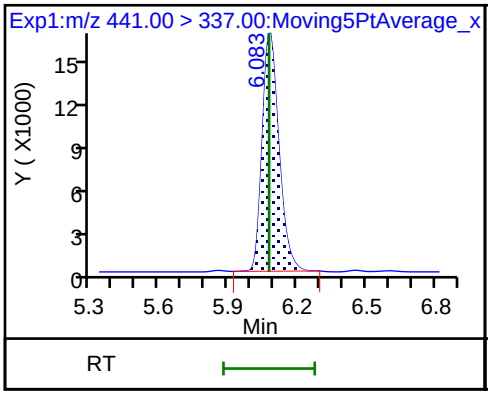
D 60 13C9 PFNA



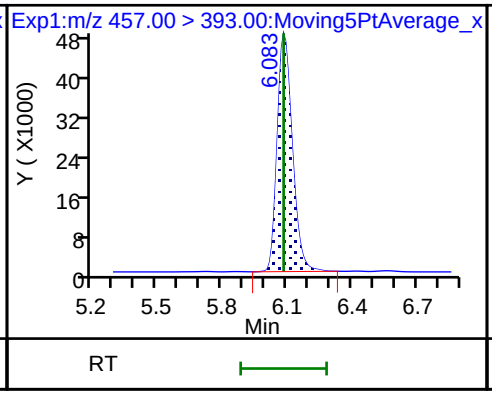
109 HFPO-TrA (M)



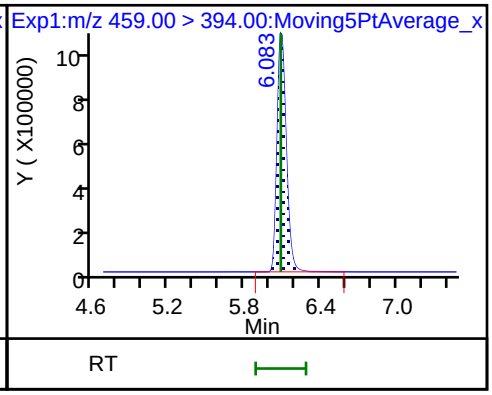
62 7:3 FTCA



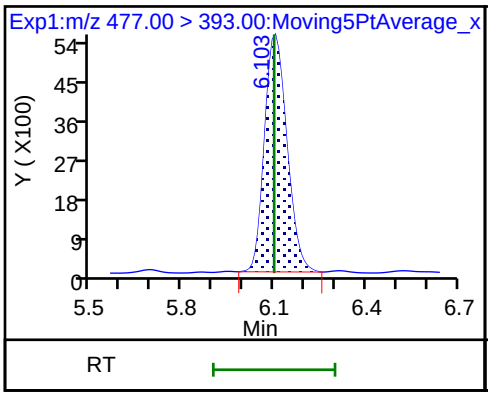
63 8:2 FTUCA



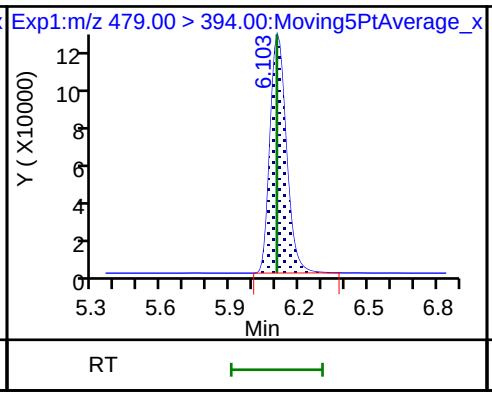
D 64 13C-8:2 FTUCA



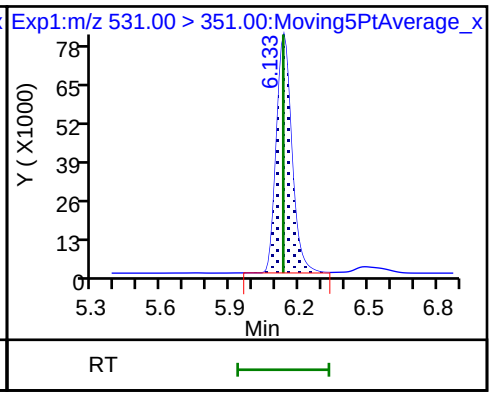
65 8:2 FTCA



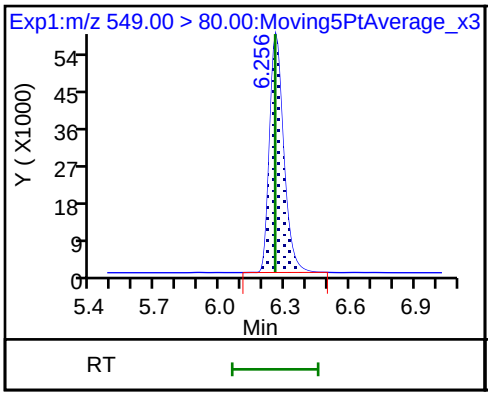
D 66 13C-8:2 FTCA



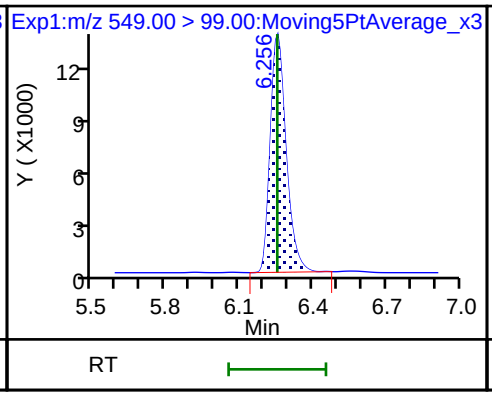
67 9ClFOS



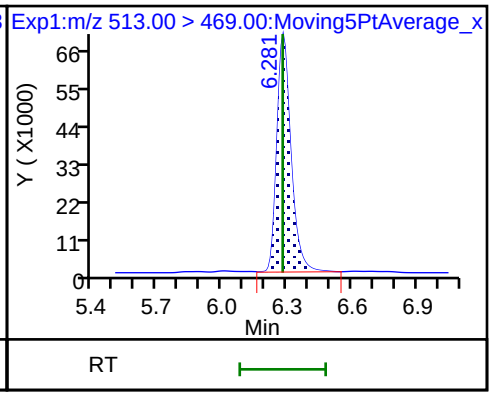
68 Perfluorononanesulfonic acid



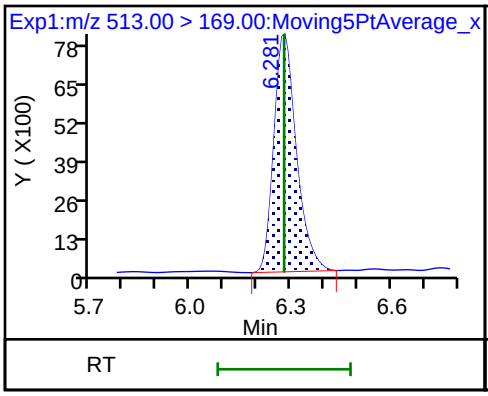
68 Perfluorononanesulfonic acid



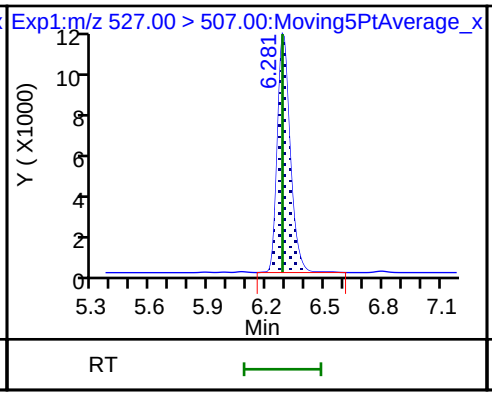
69 Perfluorodecanoic acid



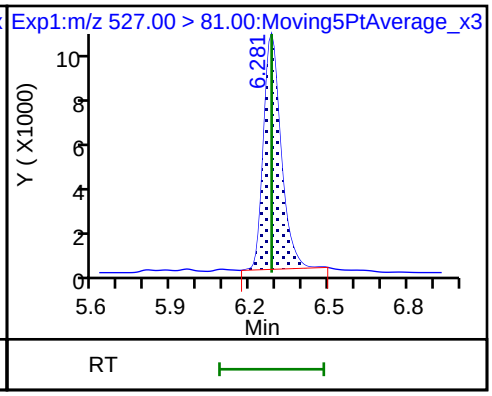
69 Perfluorodecanoic acid



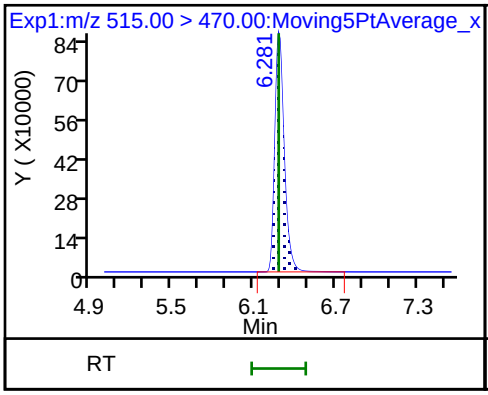
72 8:2 FTS



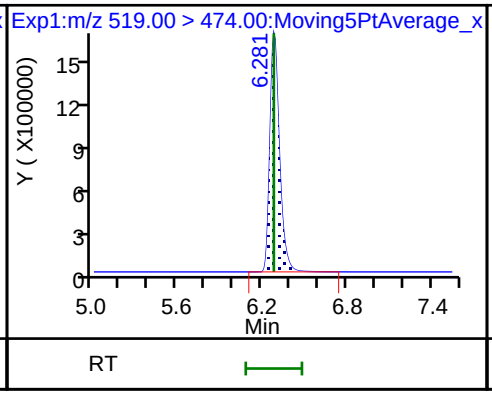
72 8:2 FTS



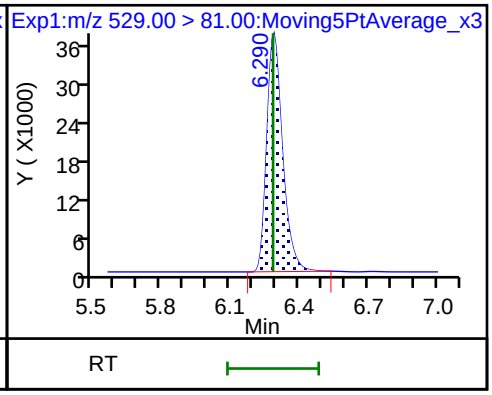
* 70 13C2 PFDA



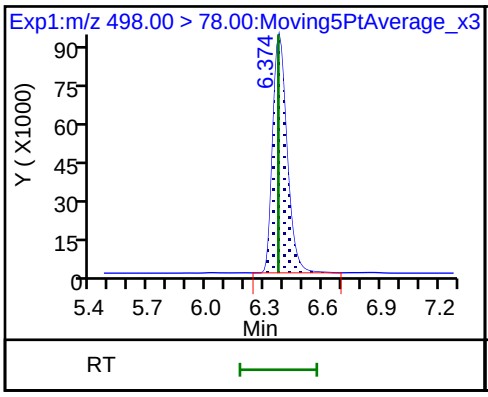
D 71 13C6 PFDA



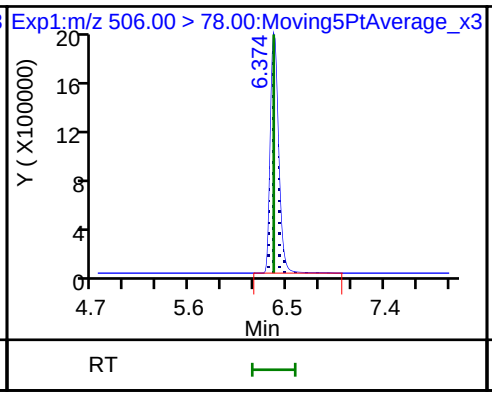
D 73 M2-8:2 FTS



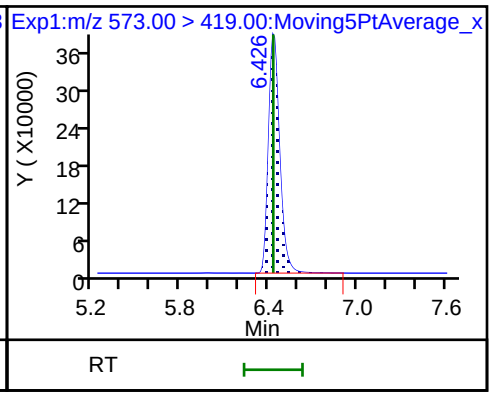
75 Perfluorooctanesulfonamide



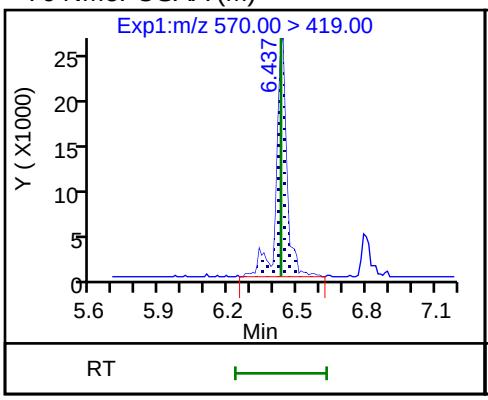
D 74 13C8 FOSA



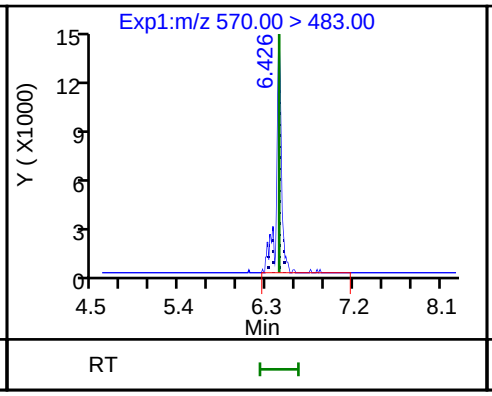
D 77 d3-NMeFOSAA



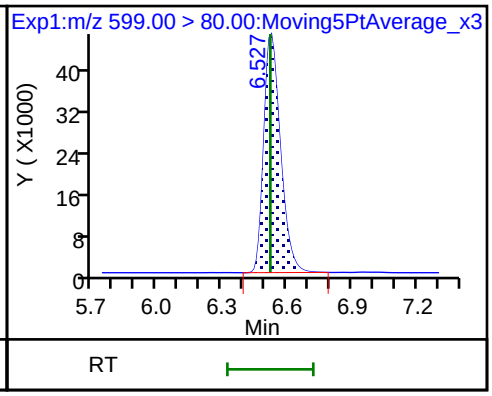
76 NMeFOSAA (M)



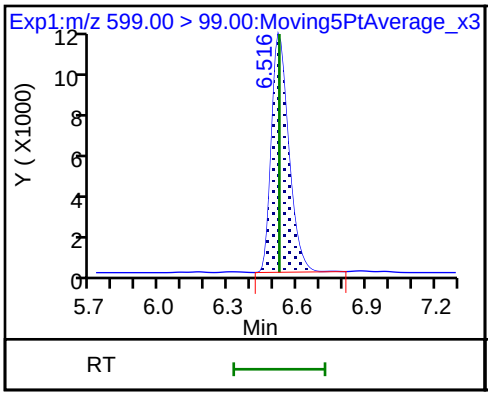
76 NMeFOSAA



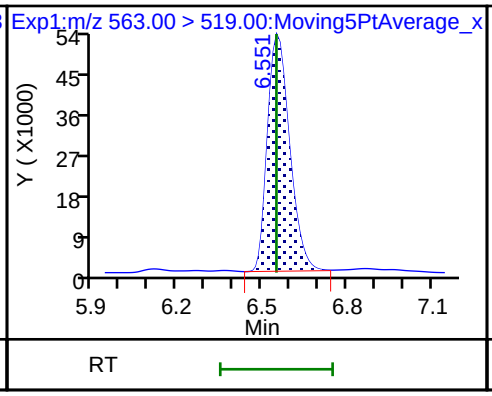
78 Perfluorodecanesulfonic acid



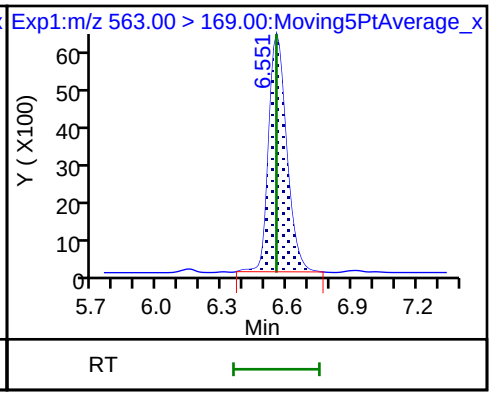
78 Perfluorodecanesulfonic acid



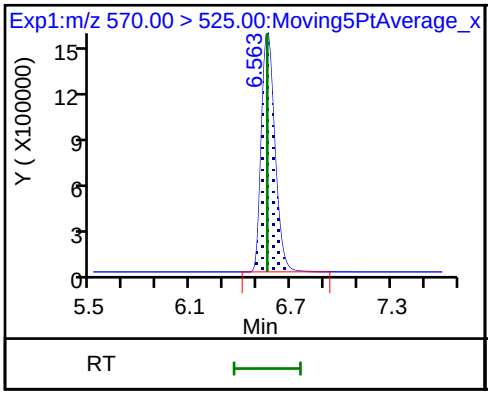
79 Perfluoroundecanoic acid



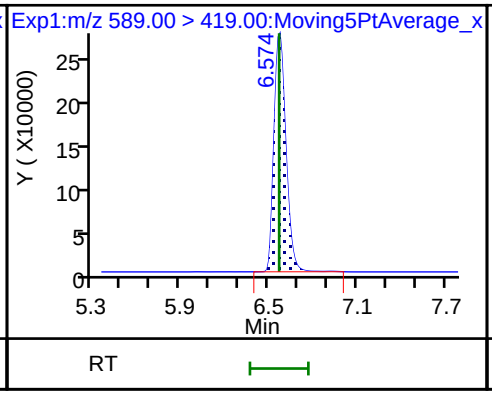
79 Perfluoroundecanoic acid



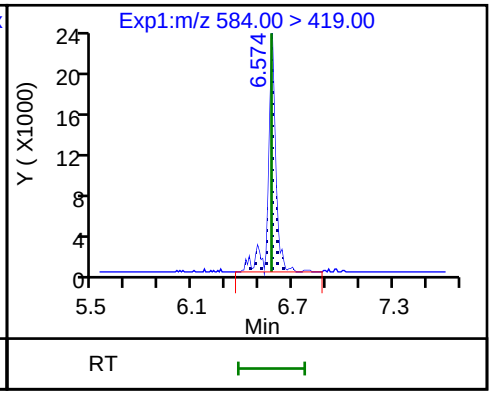
D 80 13C7 PFUnA



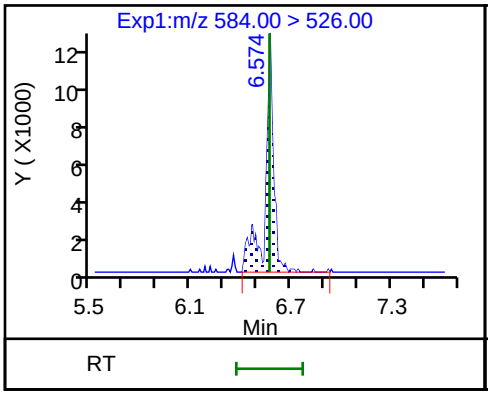
D 81 d5-NEtFOSAA



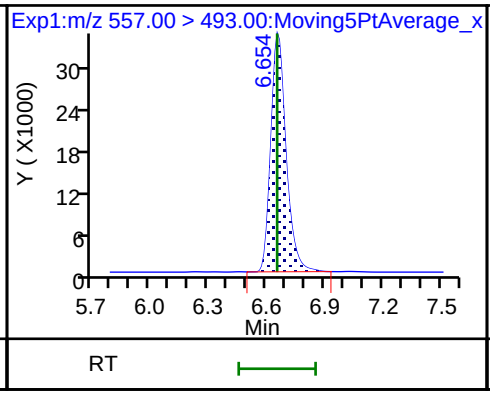
82 NEtFOSAA



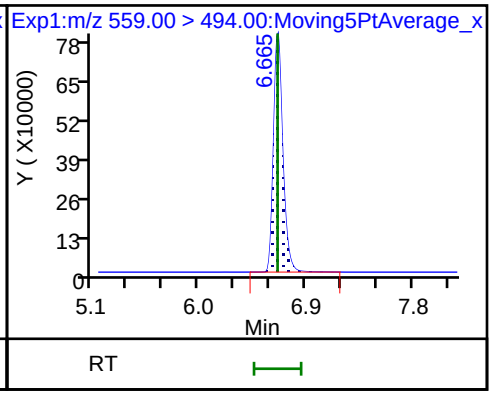
82 NEtFOSAA



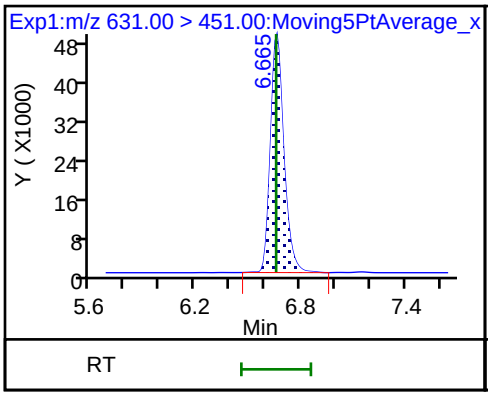
83 10:2 FTUCA



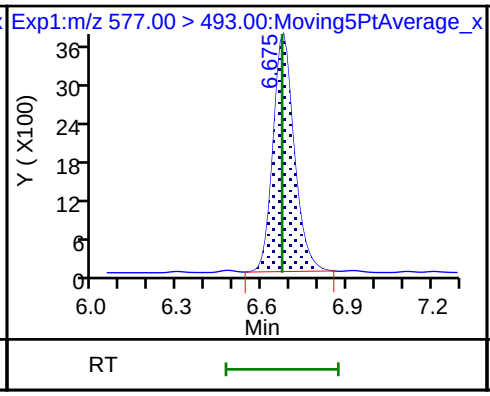
D 85 13C-10:2 FTUCA



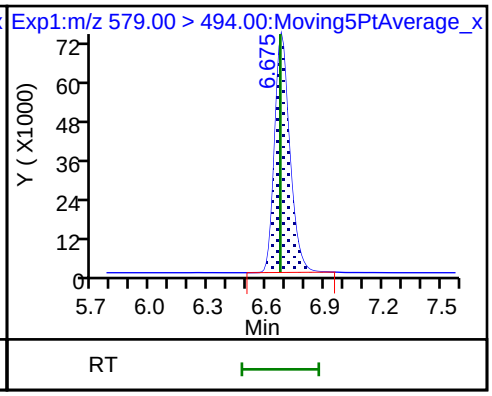
84 11ClFOS



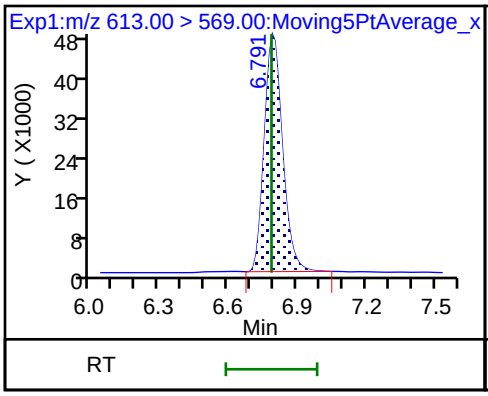
86 10:2 FTCA



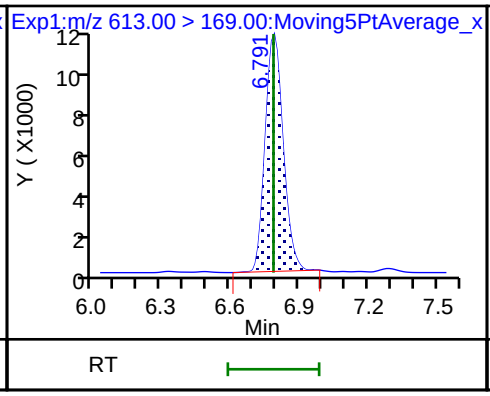
D 87 13C-10:2 FTCA



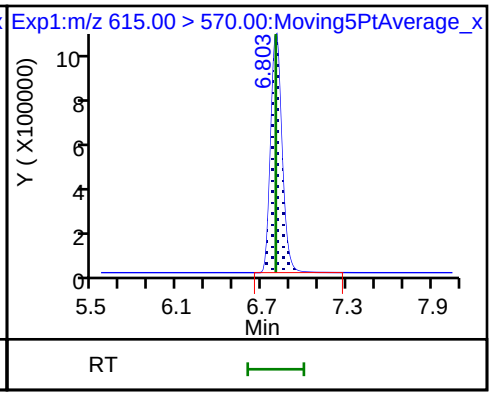
88 Perfluorododecanoic acid



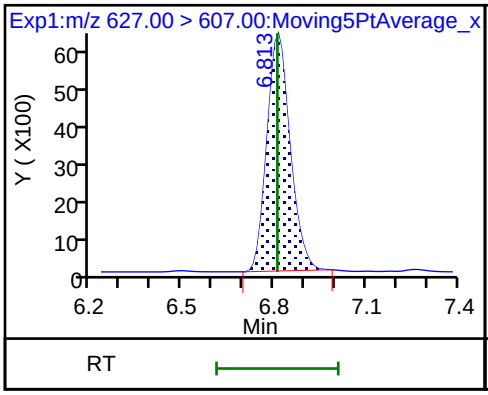
88 Perfluorododecanoic acid



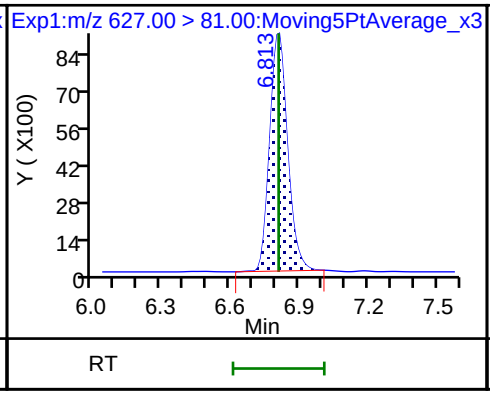
D 89 13C2-PFDoDA



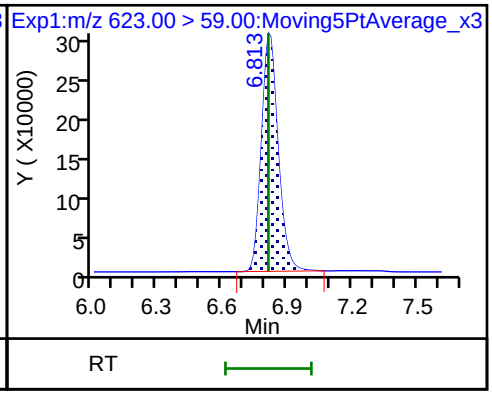
90 10:2 FTS



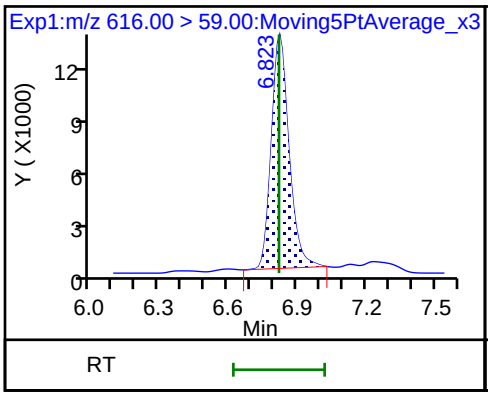
90 10:2 FTS



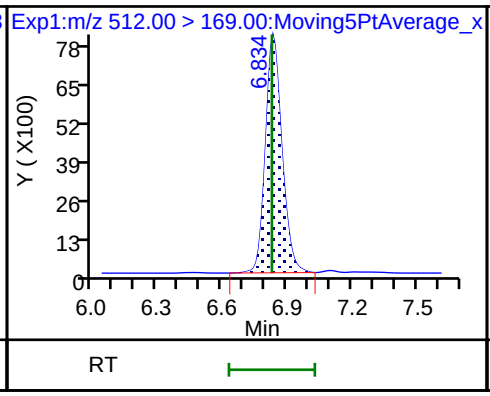
D 91 d7-N-MeFOSE-M



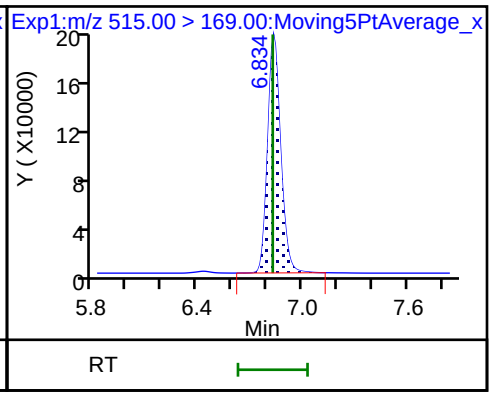
92 N-MeFOSE-M



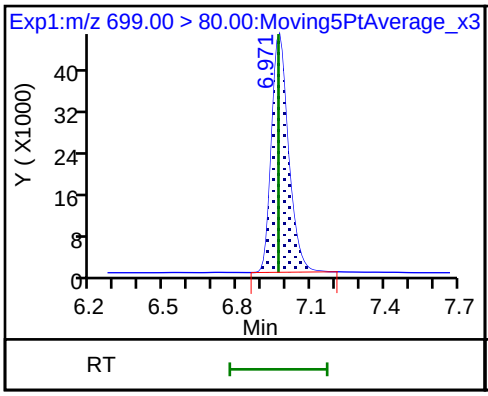
94 NMeFOSA



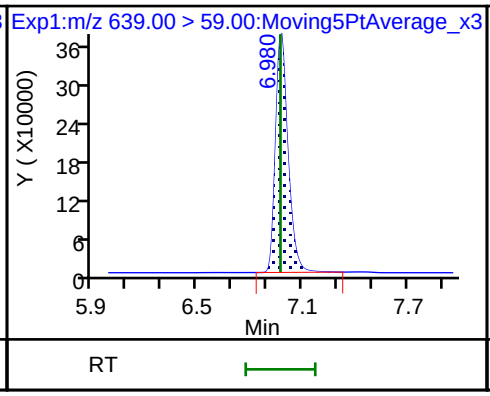
D 93 d3-NMePFOSA



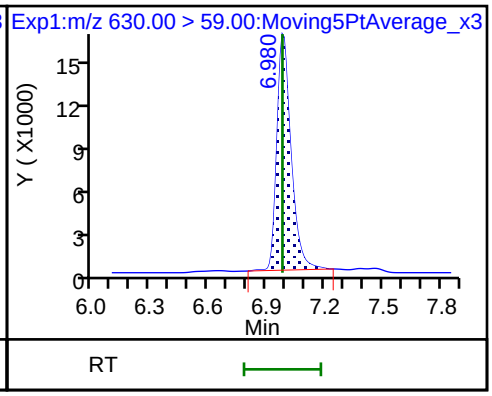
95 PFDoS



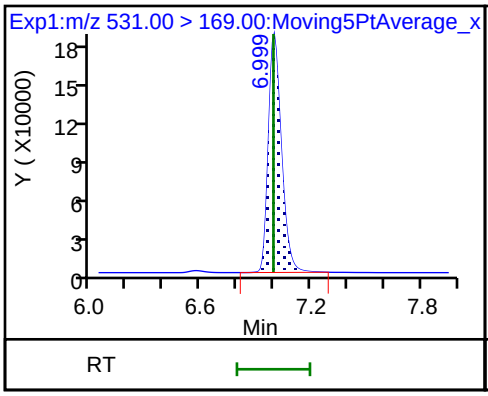
D 96 d9-N-EtFOSE-M



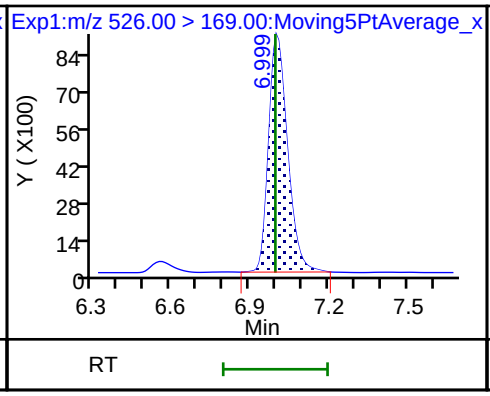
97 N-EtFOSE-M



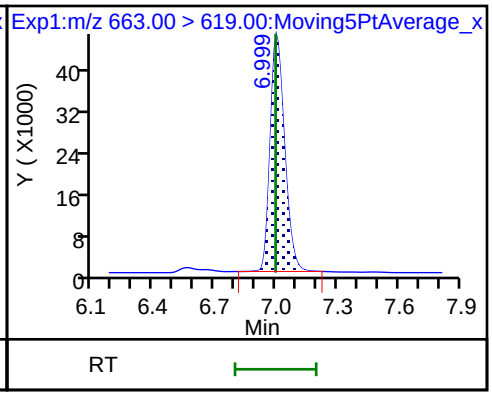
D 98 d5-NEtPFOSA



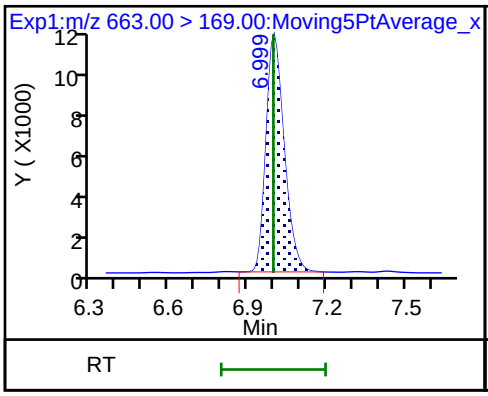
100 N-EtFOSA-M



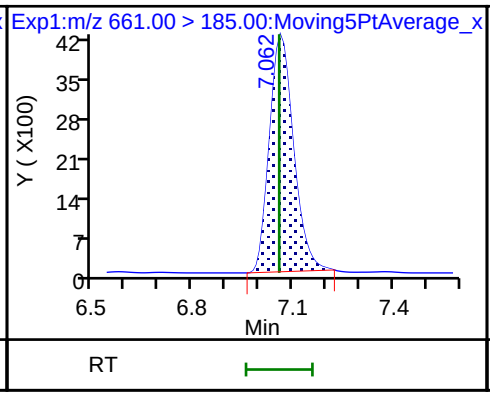
99 Perfluorotridecanoic acid



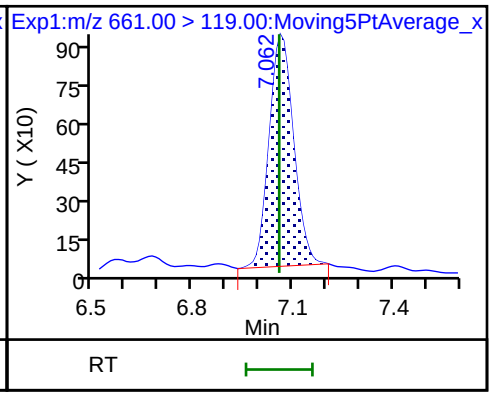
99 Perfluorotridecanoic acid



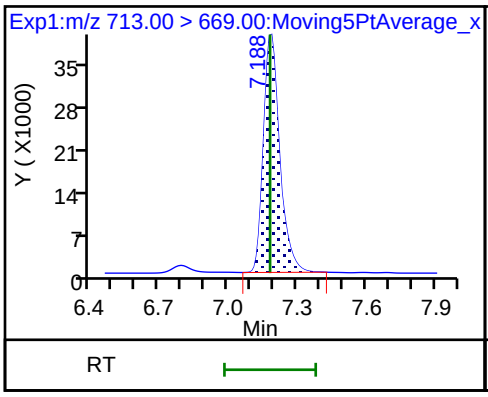
105 HFPOTeA



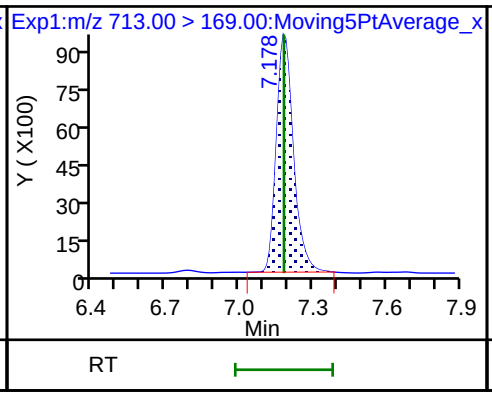
105 HFPOTeA



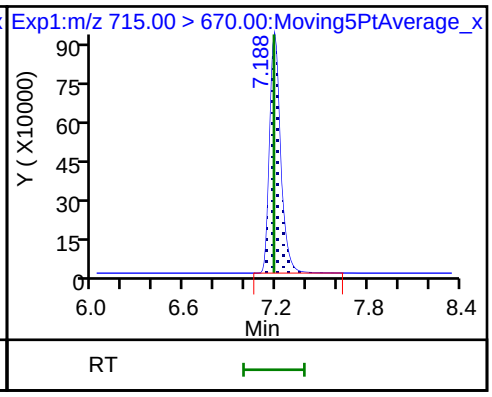
101 Perfluorotetradecanoic acid



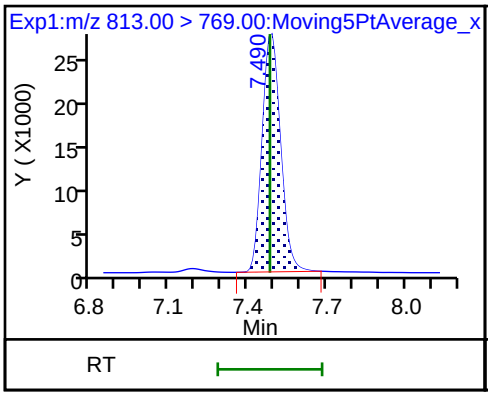
101 Perfluorotetradecanoic acid



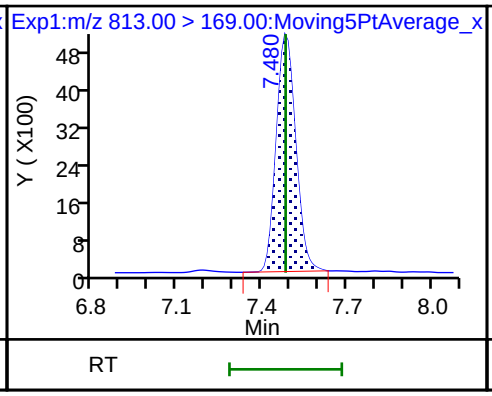
D 102 13C2 PFTeDA



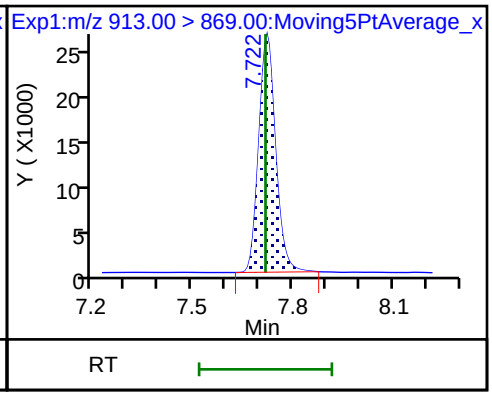
103 Perfluorohexadecanoic acid



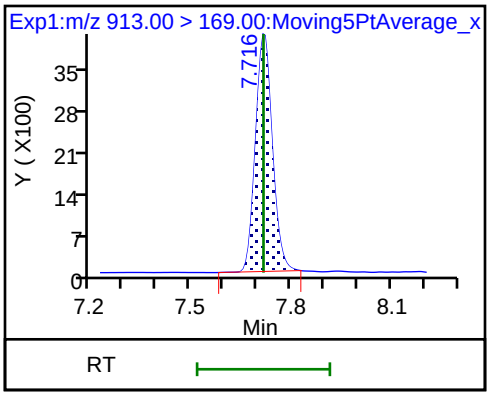
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

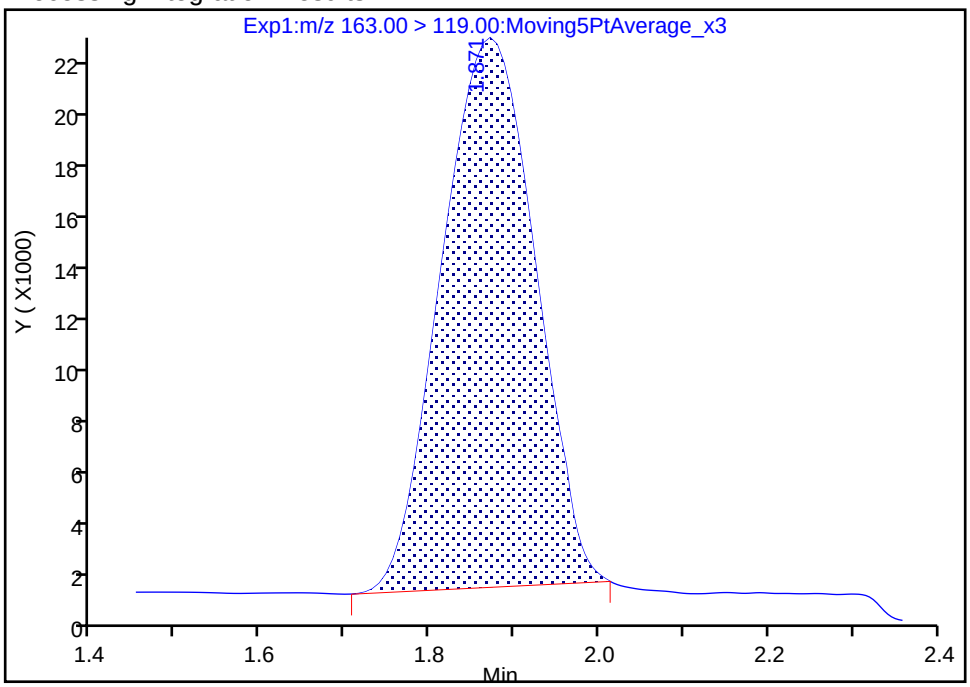
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-02.d				
Injection Date:	01-Mar-2022 21:26:25	Instrument ID:	30728		
Lims ID:	IC CAL 2				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

2 PPF Acid, CAS: 422-64-0

Signal: 1

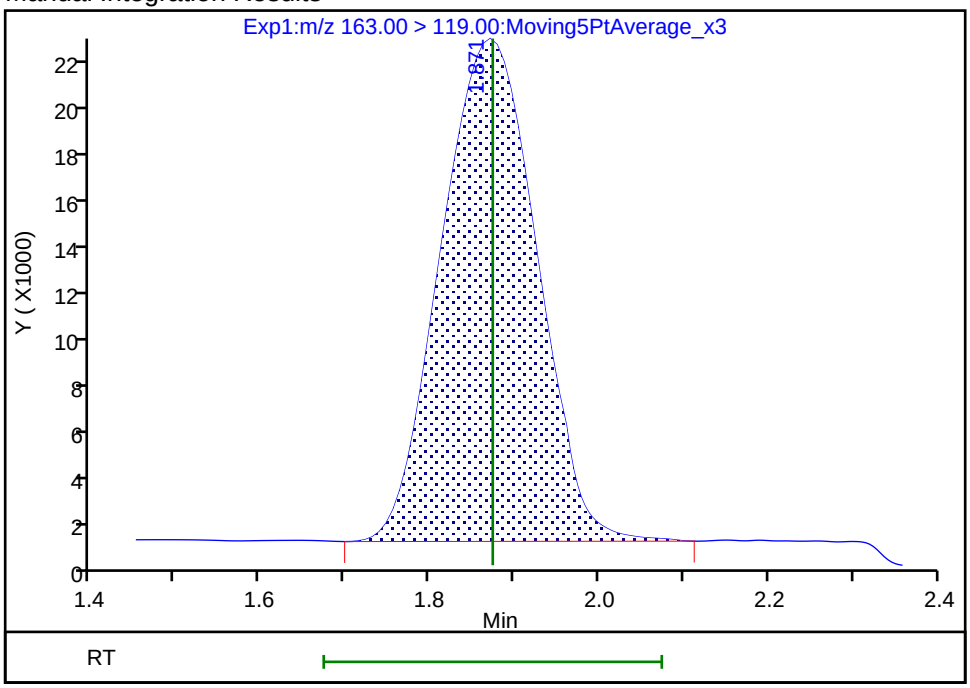
Processing Integration Results

RT: 1.87
Area: 166959
Amount: 0.455389
Amount Units: ng/ml



Manual Integration Results

RT: 1.87
Area: 172380
Amount: 0.467281
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:20:00
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

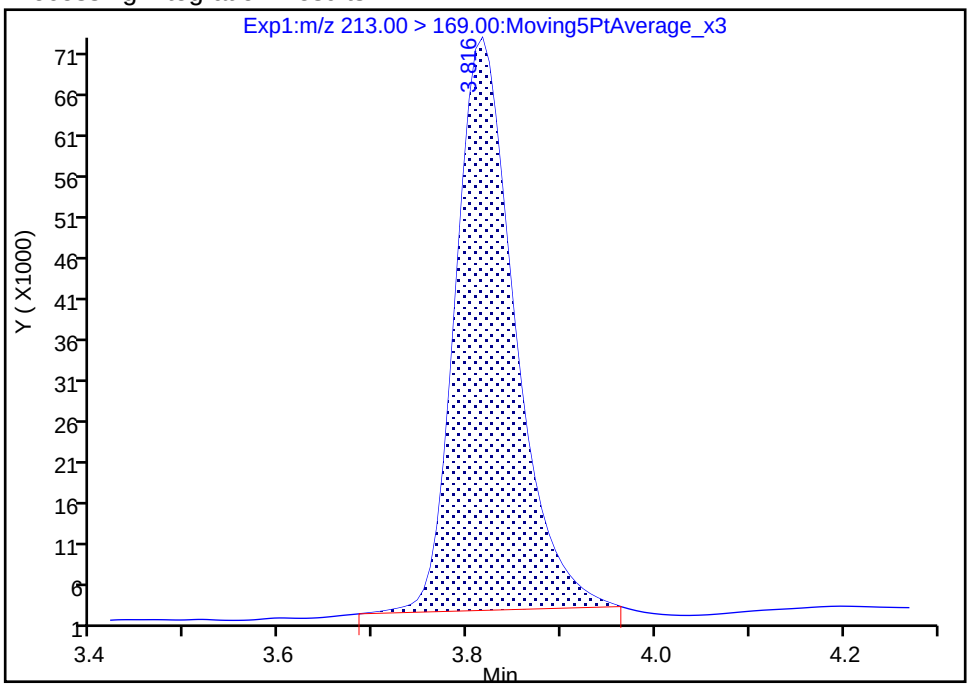
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-02.d				
Injection Date:	01-Mar-2022 21:26:25	Instrument ID:	30728		
Lims ID:	IC CAL 2				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

7 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

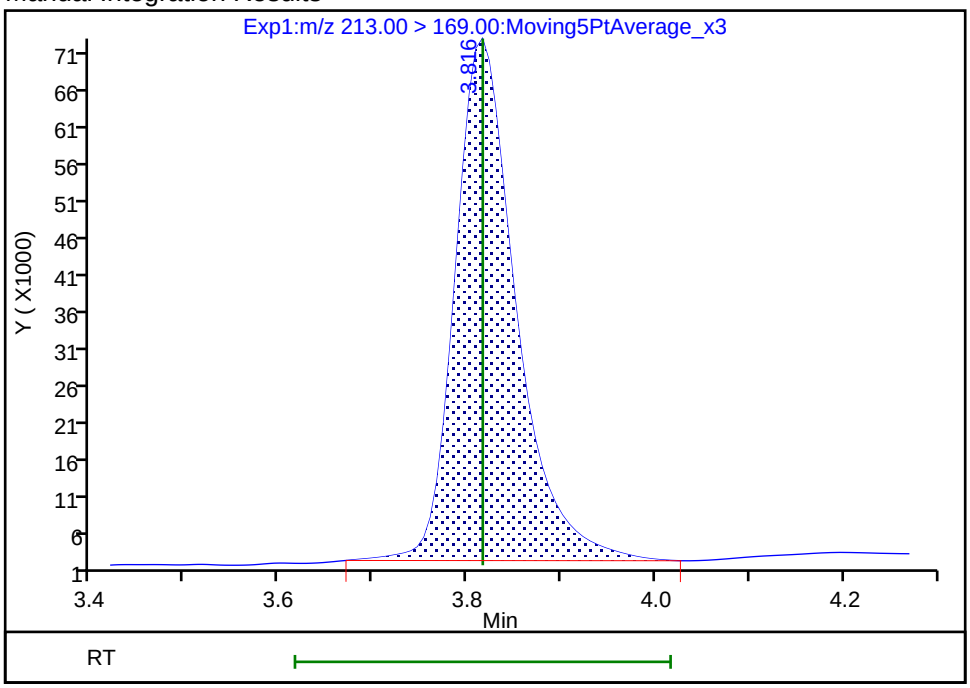
Processing Integration Results

RT: 3.82
Area: 303795
Amount: 0.450434
Amount Units: ng/ml



Manual Integration Results

RT: 3.82
Area: 315369
Amount: 0.465313
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:20:09
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

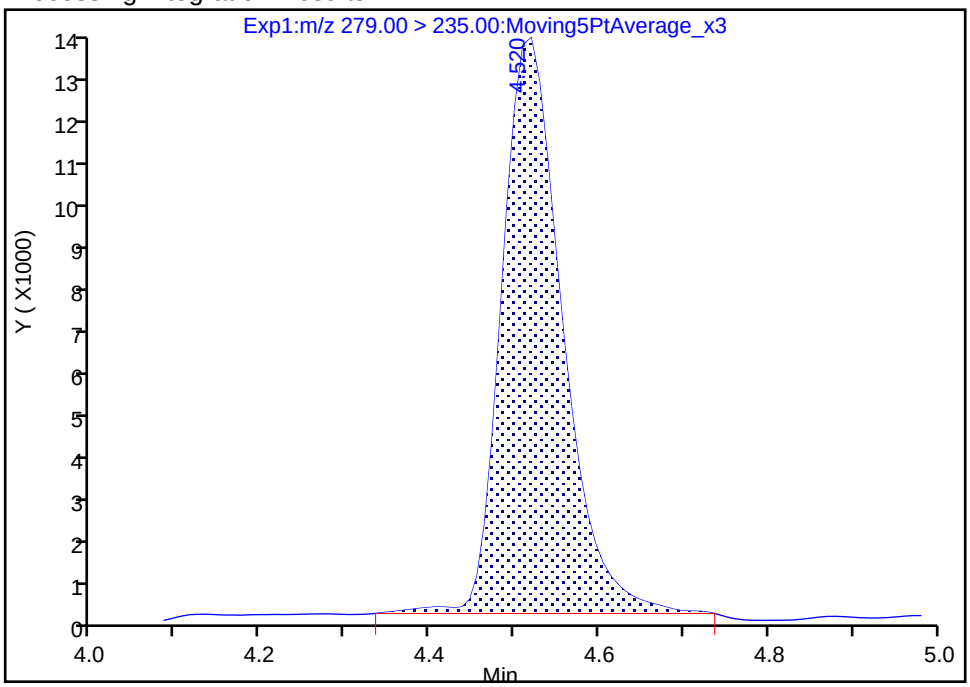
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-02.d				
Injection Date:	01-Mar-2022 21:26:25	Instrument ID:	30728		
Lims ID:	IC CAL 2				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

20 PEPA, CAS: 267239-61-2

Signal: 1

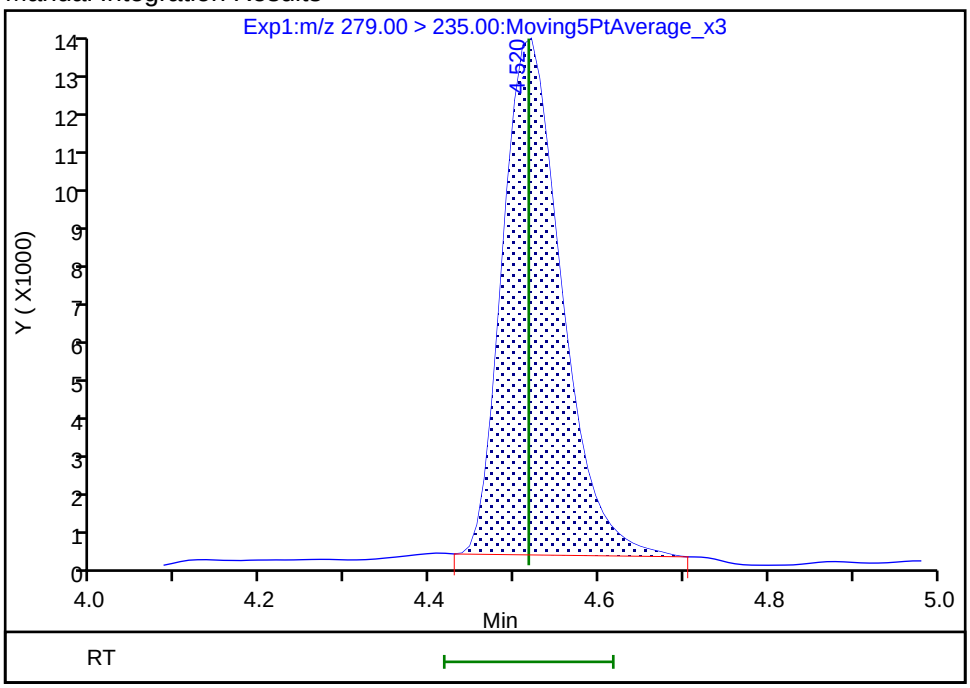
Processing Integration Results

RT: 4.52
Area: 67411
Amount: 0.478079
Amount Units: ng/ml



Manual Integration Results

RT: 4.52
Area: 65242
Amount: 0.464739
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:20:21

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

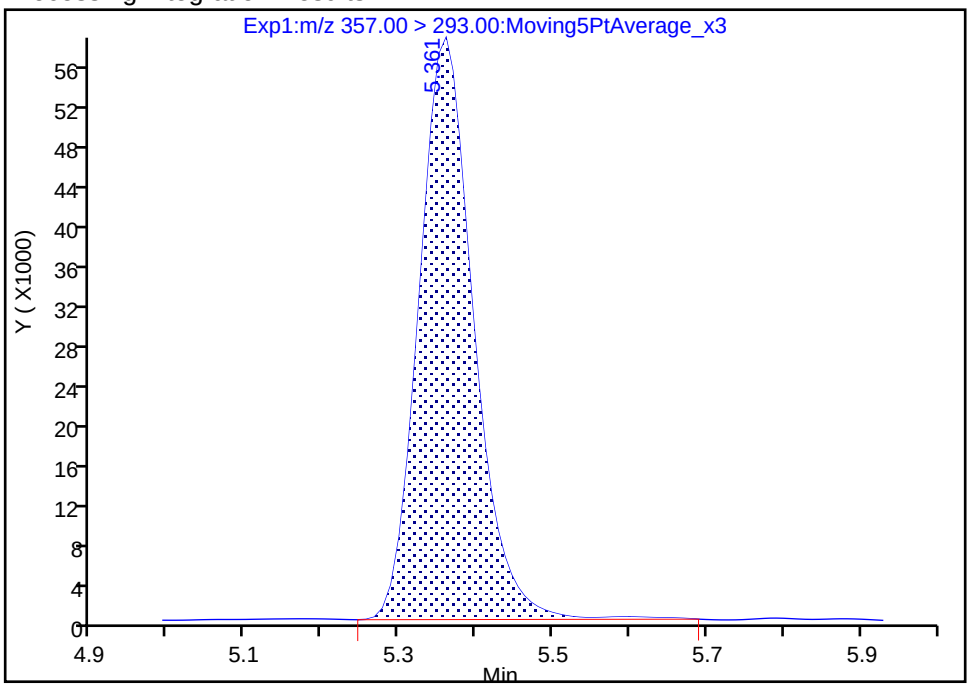
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-02.d				
Injection Date:	01-Mar-2022 21:26:25	Instrument ID:	30728		
Lims ID:	IC CAL 2				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

42 6:2 FTUCA, CAS: 70887-88-6

Signal: 1

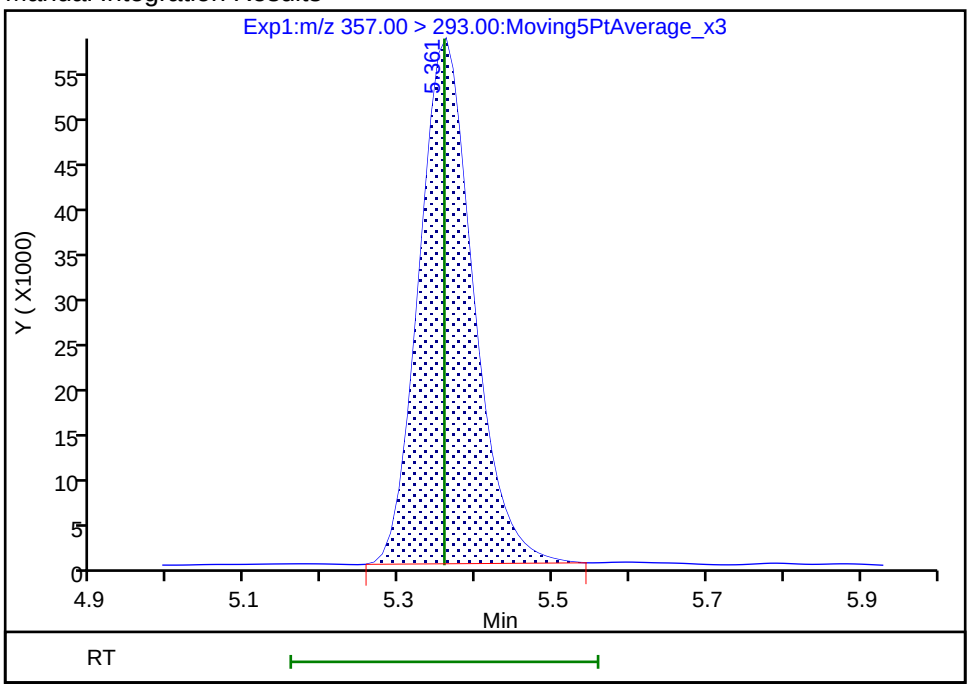
Processing Integration Results

RT: 5.36
Area: 285553
Amount: 0.466020
Amount Units: ng/ml



Manual Integration Results

RT: 5.36
Area: 282423
Amount: 0.461586
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:20:47
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

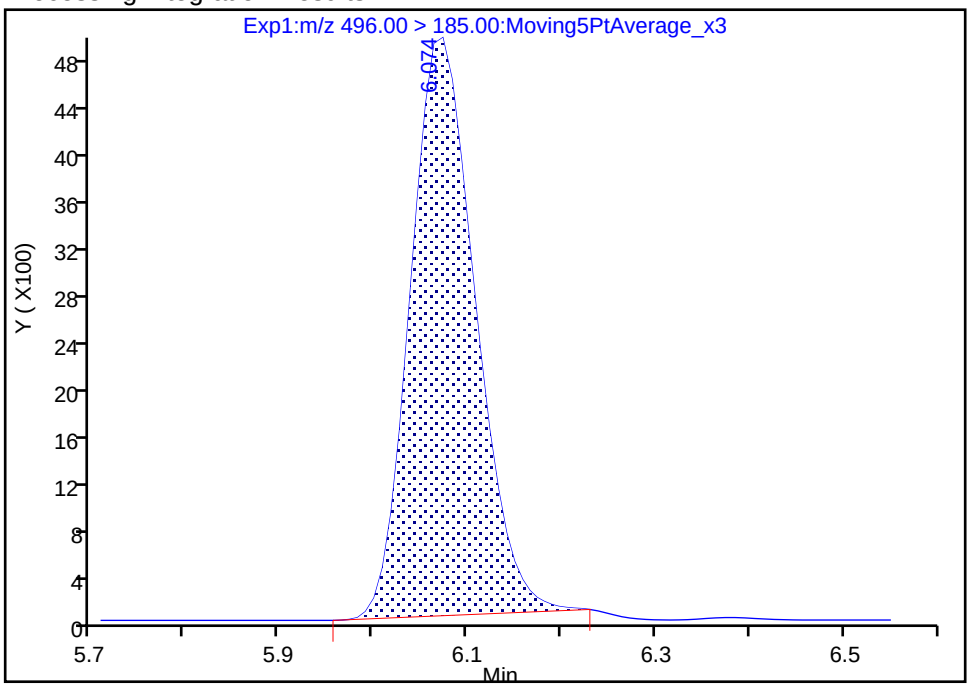
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-02.d				
Injection Date:	01-Mar-2022 21:26:25	Instrument ID:	30728		
Lims ID:	IC CAL 2				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

109 HFPO-TrA, CAS: 13252-14-7

Signal: 1

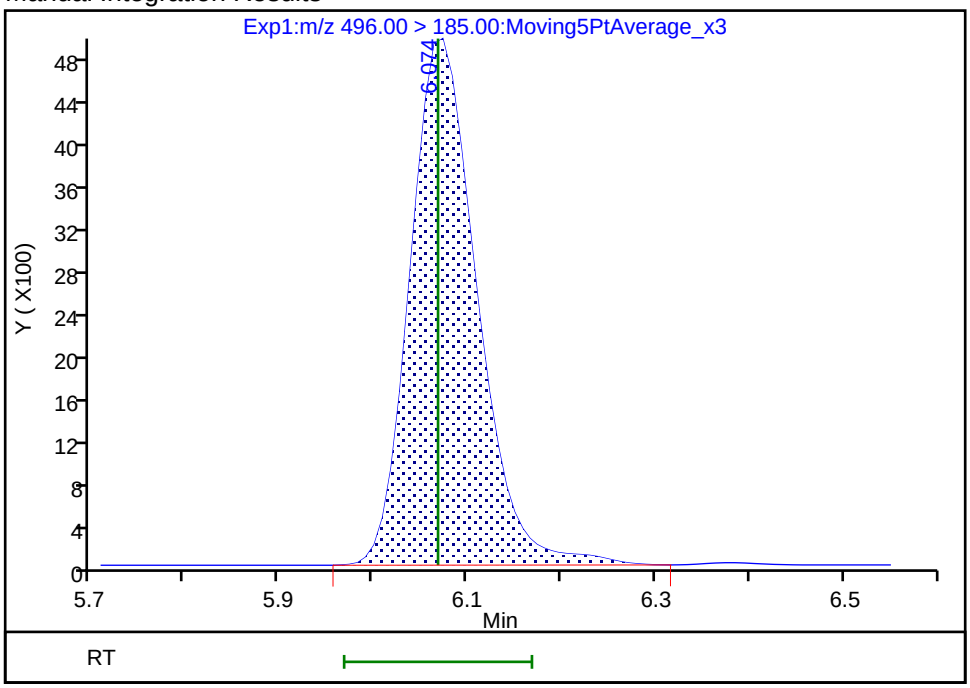
Processing Integration Results

RT: 6.07
Area: 23662
Amount: 7.932368
Amount Units: ng/ml



Manual Integration Results

RT: 6.07
Area: 24558
Amount: 8.422381
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:21:01
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

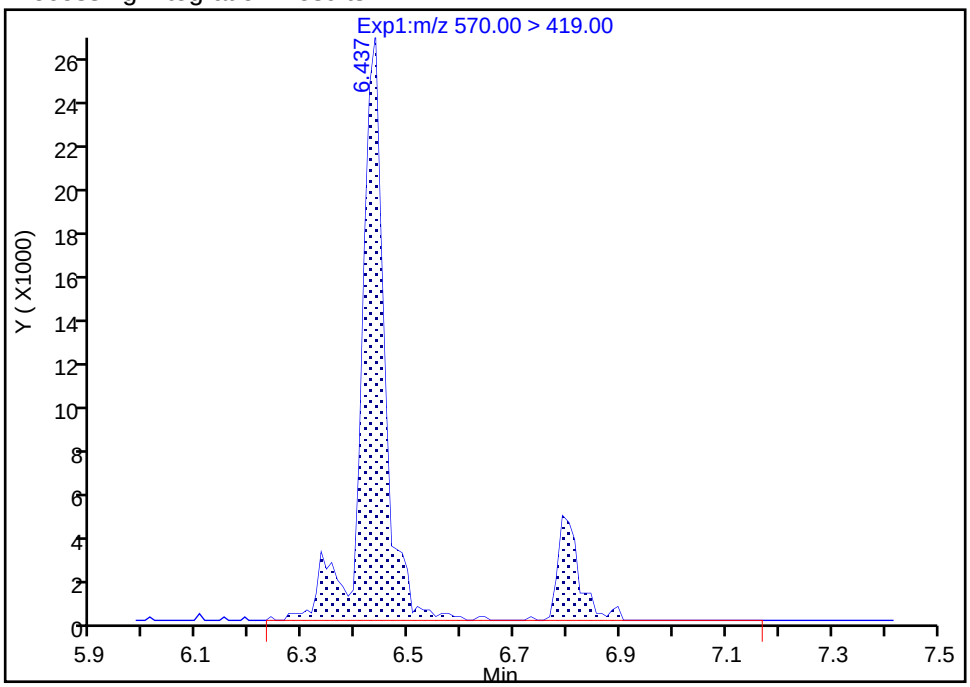
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-02.d				
Injection Date:	01-Mar-2022 21:26:25	Instrument ID:	30728		
Lims ID:	IC CAL 2				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

76 NMeFOSAA, CAS: 2355-31-9

Signal: 1

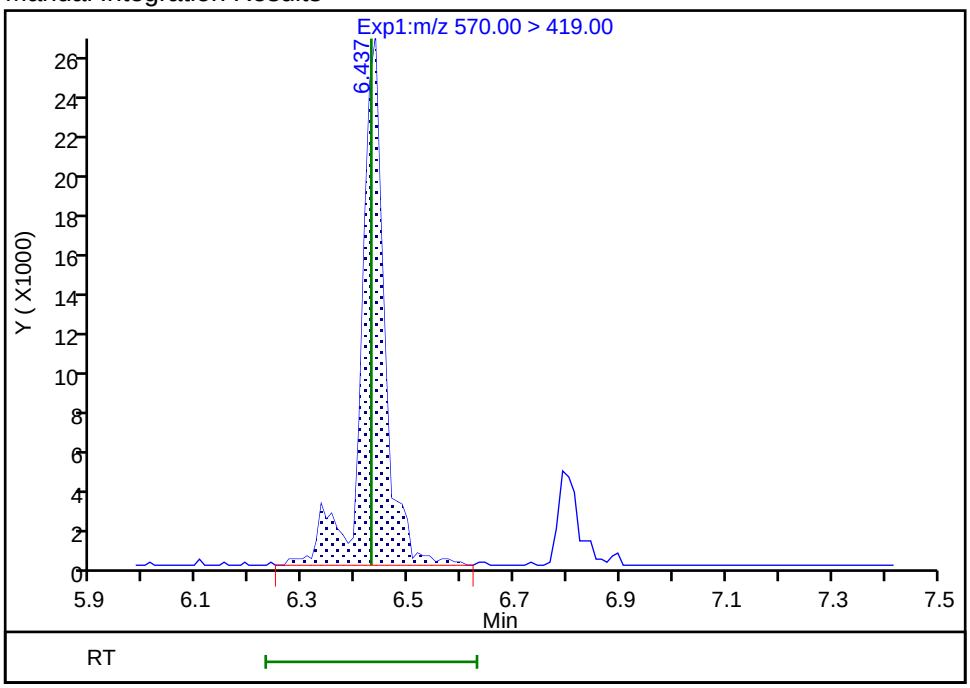
Processing Integration Results

RT: 6.44
Area: 94532
Amount: 0.516557
Amount Units: ng/ml



Manual Integration Results

RT: 6.44
Area: 80842
Amount: 0.454088
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:21:15

Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-03.d
Lims ID: IC CAL 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 01-Mar-2022 21:37:30 ALS Bottle#: 20004 Worklist Smp#: 3
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL 3
Misc. Info.: Plate: 1 Rack: 1 410-0051412-003
Operator ID: US19_USR_INS20261 Instrument ID: 30728
Sublist: chrom-PFAS_30728_XList*sub16

Method: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 01-Mar-2022 23:53:10 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1606

First Level Reviewer: polaskia Date: 01-Mar-2022 23:22:49
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.065	1.065	0.0	0.279	329552	1.92		97.8	4828	
1 MTP										
175.00 > 97.00	1.513	1.518	-0.005	0.397	121751	1.95		97.6	2840	
2 PPF Acid										M
163.00 > 119.00	1.870	1.874	-0.004	0.490	592515	1.96		98.1	2656	M
3 PFMOAA										
179.00 > 85.00	2.891	2.891	0.0	0.758	491766	1.91		95.4	4109	
4 R-PSDA										
441.00 > 241.00	3.794	3.792	0.002	0.850	42715	2.01		100	2403	
5 R-EVE										
405.00 > 217.00	3.794	3.793	0.001	0.995	121541	2.07		104	9253	
D 6 13C4 PFBA										
217.00 > 172.00	3.815	3.816	-0.001	1.000	6442139	9.84		98.4	126284	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.815	3.816	-0.001	1.000	1073943	1.94		96.8	3913	
* 8 13C3-PFBA										
216.00 > 172.00	3.815	3.817	-0.002		3030062	5.00			7204	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.815	3.817	-0.002	0.855	168603	2.08		104	11020	
10 PMPA										
229.00 > 185.00	3.953	3.956	-0.003	1.036	619096	1.88		94.1	6783	
11 PFPrS										
249.00 > 99.00	4.015	4.020	-0.005	1.053	261771	1.77		96.6	13145	
12 NVHOS										
297.00 > 135.00	4.064	4.060	0.004	0.911	275410	1.95		97.6	13800	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 PFECA F										
229.00 > 85.00	4.083	4.082	0.001	1.070	1221289	2.00		99.9	14647	
14 PFO2HxA										
245.00 > 85.00	4.290	4.286	0.004	1.125	463186	1.91		95.5	21630	
15 3:3 FTCA										
241.00 > 177.00	4.405	4.403	0.002	1.000	79553	1.90		95.1	4893	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.405	4.404	0.001	1.000	1202208	1.96		97.8	6700	
D 17 13C5 PFPeA										
268.00 > 223.00	4.405	4.404	0.001	1.155	5293178	9.98		99.8	124711	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.463	4.460	0.003	1.000	885281	1.74	Target=3.14	98.6	20720	
299.00 > 99.00	4.463	4.460	0.003	1.000	289236		3.06(1.57-4.71)	98.6	12252	
D 19 13C3 PFBS										
302.00 > 80.00	4.463	4.462	0.001	1.170	4879064	9.10		97.8	255317	
20 PEPA										
279.00 > 235.00	4.517	4.517	0.0	1.184	224944	1.96		97.9	3591	
21 PFECA A										
279.00 > 85.00	4.546	4.543	0.003	1.019	1068008	2.00		99.9	54543	
22 PES										
315.00 > 135.00	4.637	4.638	-0.001	1.039	2675145	1.78		100	116067	
23 PFECA B										
201.00 > 85.00	4.776	4.771	0.005	1.070	1652859	2.01	Target=1.81	100	48730	
295.00 > 201.00	4.766	4.771	-0.005	1.068	910173		1.82(0.90-2.71)	100	46813	
110 FBSA										
299.00 > 78.00	4.796	4.792	0.004	1.075	48424	1.87		93.5	3224	
24 4:2 FTS										
327.00 > 307.00	4.805	4.803	0.002	1.000	444240	1.84	Target=1.33	98.3	30442	
327.00 > 81.00	4.805	4.803	0.002	1.000	306539		1.45(0.66-1.99)	98.3	15270	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.805	4.806	-0.001	0.854	852578	9.85		106	34804	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.845	4.843	0.002	1.000	1067287	2.02	Target=12.64	101	14120	
313.00 > 119.00	4.845	4.843	0.002	1.000	83730		12.75(6.32-18.96)	101	2766	
D 27 13C5 PFHxA										
318.00 > 273.00	4.845	4.846	-0.001	0.861	6823881	9.59		95.9	165539	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.865	4.863	0.002	1.090	880191	1.82	Target=3.66	97.3	57541	
349.00 > 99.00	4.865	4.863	0.002	1.090	252374		3.49(1.83-5.49)	97.3	16699	
29 PFO3OA										
311.00 > 85.00	4.905	4.903	0.002	1.286	589486	1.98		98.8	38194	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.988	4.983	0.005	0.886	1549660	9.28		92.8	102097	
30 HFPO-DA										
329.00 > 285.00	4.977	4.978	-0.001	0.998	369382	1.93		96.5	8053	
32 Hydro-EVE Acid										
427.00 > 283.00	5.200	5.201	-0.001	1.363	1823379	2.06		103	381484	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
33 R-PSDCA										
397.00 > 217.00	5.211	5.209	0.002	1.168	2579006	1.99		99.7	95202	
108 FBSEE										
386.00 > 166.00	5.222	5.220	0.002	1.170	56615	2.04	Target=1.76	102	3487	
386.00 > 80.00	5.211	5.220	-0.009	1.168	31596		1.79(0.88-2.64)	102	1942	
D 37 13C3 PFHxS										
402.00 > 80.00	5.254	5.254	0.0	0.934	4763394	9.42		99.6	222196	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.254	5.254	0.0	1.000	1440003	1.98	Target=3.54	99.2	23957	
363.00 > 169.00	5.254	5.254	0.0	1.000	418748		3.44(1.77-5.31)	99.2	19415	
D 38 13C4 PFHpA										
367.00 > 322.00	5.254	5.255	-0.001	0.934	7920631	10.3		103	292056	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.254	5.254	0.0	1.000	883241	1.81	Target=3.57	99.1	2004	
399.00 > 99.00	5.254	5.254	0.0	1.000	246008		3.59(1.78-5.35)	99.1	550	
34 Hydro-PS Acid										
463.00 > 263.00	5.265	5.246	0.019	1.180	1829969	2.09		104	368117	
39 DONA										
377.00 > 251.00	5.309	5.303	0.006	1.010	1710356	1.87		98.8	64491	
40 PFECA G										
379.00 > 185.00	5.319	5.322	-0.003	1.394	2103827	2.02		101	134530	
41 5:3 FTCA										
341.00 > 237.00	5.340	5.338	0.002	1.016	270667	2.00	Target=3.04	99.9	10399	
341.00 > 217.00	5.330	5.338	-0.008	1.014	88328		3.06(1.52-4.55)	99.9	5699	
42 6:2 FTUCA										
357.00 > 293.00	5.359	5.359	0.0	1.000	1032179	2.10		105	33995	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.359	5.361	-0.002	0.952	3973681	9.50		95.0	100864	
44 6:2 FTCA										
377.00 > 293.00	5.378	5.378	0.0	1.000	130913	2.12		106	6869	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.378	5.379	-0.001	0.955	596193	9.06		90.6	30508	
46 PFO4DA										
377.00 > 85.00	5.428	5.435	-0.007	1.423	729628	2.01		100	1148	
47 PS Acid										
443.00 > 147.00	5.480	5.479	0.001	1.228	652322	2.10		105	46427	
48 EVE Acid										
407.00 > 263.00	5.498	5.500	-0.002	1.441	1915726	2.10		105	100258	
49 PFECHS										
461.00 > 381.00	5.567	5.569	-0.002	1.060	1235286	1.88	Target=1.56	102	86418	
461.00 > 99.00	5.567	5.569	-0.002	1.060	788966		1.57(0.78-2.34)	102	54879	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.620	5.614	0.006	0.998	304408	9.83		104	20834	
50 6:2 FTS										
427.00 > 407.00	5.611	5.613	-0.002	0.998	229037	1.96	Target=1.19	104	15609	
427.00 > 81.00	5.611	5.613	-0.002	0.998	185494		1.23(0.60-1.79)	104	12731	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.620	5.618	0.002	1.070	925710	1.91	Target=3.73	100	64702	
449.00 > 99.00	5.620	5.618	0.002	1.070	242298		3.82(1.87-5.60)	100	17030	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.629	5.630	-0.002	1.000	1134425	2.02	Target=2.20	101	67769	
413.00 > 169.00	5.638	5.630	0.008	1.002	525042		2.16(1.10-3.30)	101	1012	
D 54 13C8 PFOA										
421.00 > 376.00	5.629	5.631	-0.003	1.000	7533176	10.0		100	305254	
* 55 13C2 PFOA										
415.00 > 370.00	5.629	5.631	-0.003		3066419	5.00			209842	
106 FHxSA										M
399.00 > 78.00	5.697	5.691	0.006	1.084	60125	1.87		93.6	4014	M
56 TAF										
443.00 > 85.00	5.879	5.879	0.0	1.541	647953	1.89		94.3	22270	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.953	5.954	-0.001	1.000	939867	1.80	Target=4.38	97.4	1304	
499.00 > 99.00	5.953	5.954	-0.001	1.000	208340		4.51(2.19-6.58)	97.4	244	
* 59 13C4 PFOS										
503.00 > 80.00	5.953	5.955	-0.002		2663631	4.78			188806	
D 58 13C8 PFOS										
507.00 > 80.00	5.953	5.955	-0.002	1.000	5096452	9.44		98.8	77085	
61 Perfluorononanoic acid										
463.00 > 419.00	5.971	5.973	-0.002	0.999	886537	1.88	Target=3.95	94.1	17295	
463.00 > 169.00	5.971	5.973	-0.002	0.999	221163		4.01(1.97-5.92)	94.1	11810	
D 60 13C9 PFNA										
472.00 > 427.00	5.979	5.975	0.004	1.004	5406115	10.2		102	287343	
109 HFPO-TrA										
496.00 > 185.00	6.070	6.068	0.002	1.217	50649	21.6		108	3394	
63 8:2 FTUCA										
457.00 > 393.00	6.089	6.084	0.005	1.000	846513	2.21		110	42841	
62 7:3 FTCA										
441.00 > 337.00	6.079	6.077	0.002	1.130	325998	2.25		113	16486	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.089	6.085	0.004	0.970	4067561	9.40		94.0	91735	
65 8:2 FTCA										
477.00 > 393.00	6.099	6.099	0.0	1.000	96271	2.15		107	6483	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.099	6.102	-0.003	0.971	449524	9.23		92.3	30925	
67 9ClFOS										
531.00 > 351.00	6.129	6.130	-0.001	1.029	1394321	1.86		100	17219	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.253	6.254	-0.001	1.050	961341	1.86	Target=4.33	96.9	70722	
549.00 > 99.00	6.253	6.254	-0.001	1.050	202471		4.75(2.16-6.49)	96.9	15152	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.279	6.279	0.0	1.000	1129028	2.05	Target=7.98	102	24845	
513.00 > 169.00	6.279	6.279	0.0	1.000	134564		8.39(3.99-11.97)	102	7327	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 71 13C6 PFDA										
519.00 > 474.00	6.279	6.282	-0.003	1.000	6559215	9.69		96.9	354023	
72 8:2 FTS										
527.00 > 507.00	6.279	6.282	-0.003	0.999	181822	1.89	Target=1.01	98.4	12748	
527.00 > 81.00	6.279	6.282	-0.003	0.999	182470		1.00(0.50-1.51)	98.4	7747	
* 70 13C2 PFDA										
515.00 > 470.00	6.279	6.282	-0.003		3547553	5.00			190617	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.287	6.285	0.002	1.001	162449	9.25		96.6	11611	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.372	6.371	0.001	1.000	1568454	1.85		92.5	60953	
D 74 13C8 FOSA										
506.00 > 78.00	6.372	6.375	-0.003	1.015	8549950	9.78		97.8	414486	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.434	6.428	0.006	1.025	1778048	9.34		93.4	42464	
76 NMeFOSAA										M
570.00 > 419.00	6.434	6.430	0.004	1.000	314301	2.00	Target=1.69	100	32860	M
570.00 > 483.00	6.424	6.430	-0.006	0.998	192810		1.63(0.85-2.54)	100	356	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.525	6.522	0.003	1.096	940218	1.85	Target=4.28	95.9	44107	
599.00 > 99.00	6.514	6.522	-0.008	1.094	233459		4.03(2.14-6.42)	95.9	14892	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.549	6.550	-0.001	0.998	1088669	2.03	Target=7.28	101	24474	
563.00 > 169.00	6.549	6.550	-0.001	0.998	144893		7.51(3.64-10.92)	101	8866	
D 80 13C7 PFUnA										
570.00 > 525.00	6.560	6.557	0.003	1.045	7206854	10.1		101	429194	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.572	6.569	0.003	1.047	1394583	10.3		103	49995	
82 NEtFOSAA										
584.00 > 419.00	6.572	6.570	0.002	1.000	248998	1.86	Target=1.63	93.0	395	
584.00 > 526.00	6.572	6.570	0.002	1.000	164629		1.51(0.82-2.45)	93.0	221	
83 10:2 FTUCA										
557.00 > 493.00	6.652	6.654	-0.002	0.998	752267	2.12		106	23731	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.663	6.660	0.003	1.061	3691891	9.69		96.9	170440	
84 11ClFOS										
631.00 > 451.00	6.663	6.660	0.003	1.119	1044974	1.89		102	49787	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.674	6.670	0.004	1.063	327087	9.23		92.3	20272	
86 10:2 FTCA										
577.00 > 493.00	6.674	6.670	0.004	1.000	63668	2.00		100	3962	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.789	6.787	0.002	1.000	956011	2.00	Target=4.76	99.8	34700	
613.00 > 169.00	6.789	6.787	0.002	1.000	194548		4.91(2.38-7.14)	99.8	8923	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.789	6.796	-0.007	1.081	5248344	9.61		96.1	319041	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
90 10:2 FTS										
627.00 > 607.00	6.811	6.810	0.001	1.083	133018	1.86	Target=0.75	96.3	8451	
627.00 > 81.00	6.801	6.810	-0.009	1.082	186560		0.71(0.38-1.13)	96.3	11699	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.811	6.813	-0.002	1.085	1293777	9.10		91.0	12836	
92 N-MeFOSE-M										
616.00 > 59.00	6.822	6.820	0.002	1.002	263664	2.01		100	5023	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.832	6.829	0.003	1.088	802090	8.87		88.7	17381	
94 NMeFOSA										
512.00 > 169.00	6.832	6.829	0.003	1.000	158642	2.03		101	7646	
95 PFDoS										
699.00 > 80.00	6.969	6.967	0.002	1.171	876396	1.93		99.6	46008	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.979	6.973	0.006	1.111	1573954	9.77		97.7	21575	
97 N-EtFOSE-M										
630.00 > 59.00	6.988	6.981	0.007	1.001	303523	1.92		95.8	8831	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.997	6.995	0.002	1.114	811120	9.65		96.5	23751	
100 N-EtFOSA-M										
526.00 > 169.00	6.997	6.996	0.001	1.000	157625	1.86		92.9	5346	
99 Perfluorotridecanoic acid										
663.00 > 619.00	6.997	6.996	0.001	1.031	864043	2.08	Target=4.11	104	22178	
663.00 > 169.00	6.997	6.996	0.001	1.031	202455		4.27(2.06-6.17)	104	13992	
105 HFPOTeA										
661.00 > 185.00	7.060	7.058	0.002	1.416	49550	19.7	Target=4.76	99.6	3223	
661.00 > 119.00	7.060	7.058	0.002	1.416	11026		4.49(2.38-7.14)	99.6	713	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.187	7.184	0.003	1.145	4119290	9.38		93.8	142417	
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.177	7.181	-0.004	0.999	733147	2.02	Target=4.34	101	18803	
713.00 > 169.00	7.177	7.181	-0.004	0.999	159696		4.59(2.17-6.50)	101	11018	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.479	7.483	-0.004	1.041	461755	1.93	Target=5.44	96.3	13405	
813.00 > 169.00	7.479	7.483	-0.004	1.041	82071		5.63(2.72-8.16)	96.3	4224	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.722	7.717	0.005	1.074	341836	1.98	Target=6.37	99.1	19382	
913.00 > 169.00	7.716	7.717	-0.001	1.074	52346		6.53(3.18-9.55)	99.1	5015	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD3_00015 Amount Added: 200.00 Units: uL

Report Date: 01-Mar-2022 23:53:11 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-03.d

Injection Date: 01-Mar-2022 21:37:30 Instrument ID: 30728

Lims ID: IC CAL 3

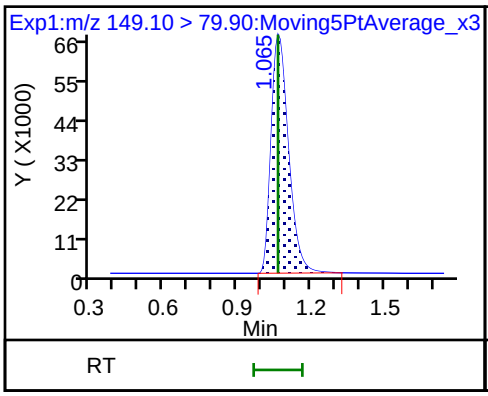
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20004 Worklist Smp#: 3

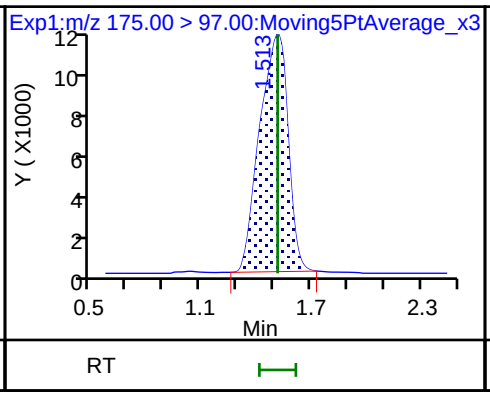
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

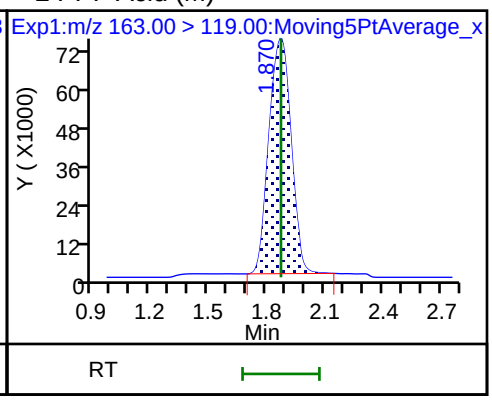
107 Sodium trifluoromethanesulfonate



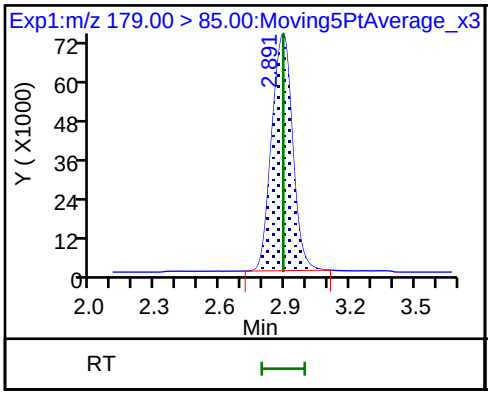
1 MTP



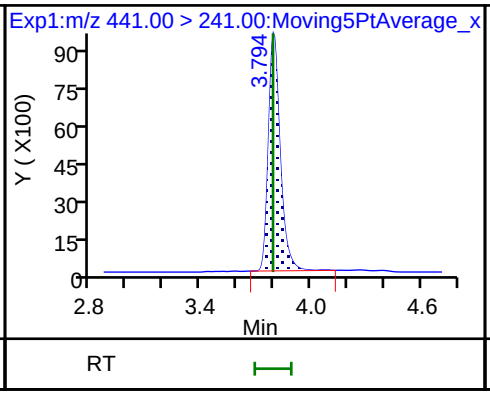
2 PPF Acid (M)



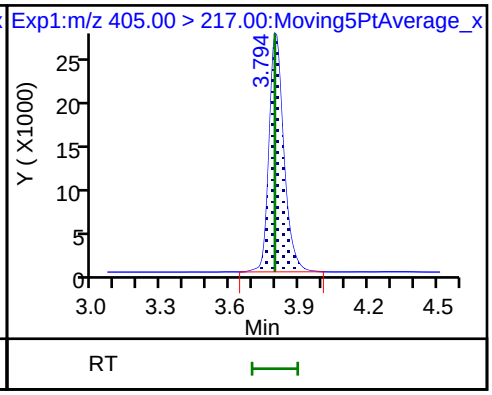
3 PFMOAA



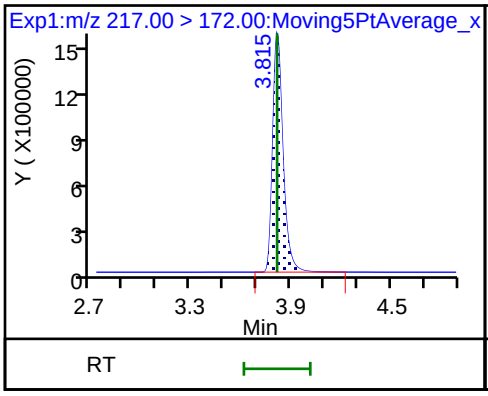
4 R-PSDA



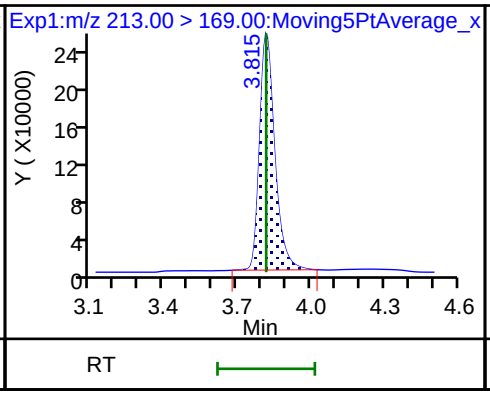
5 R-EVE



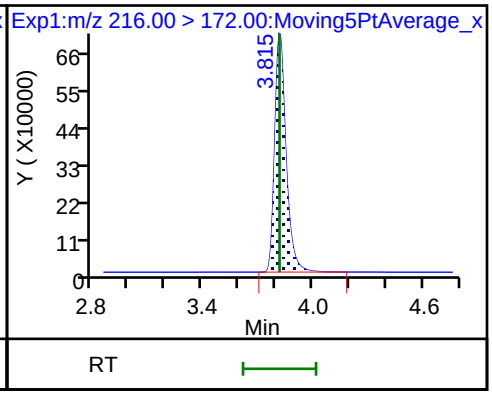
D 6 13C4 PFBA



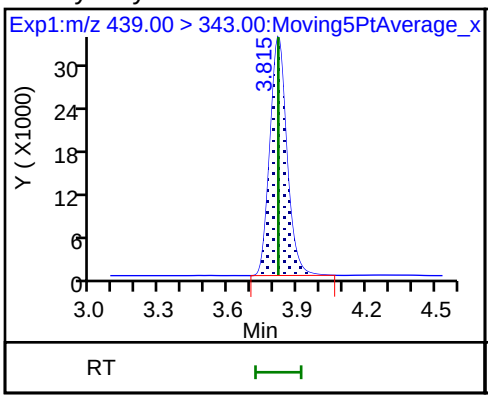
7 Perfluorobutanoic acid



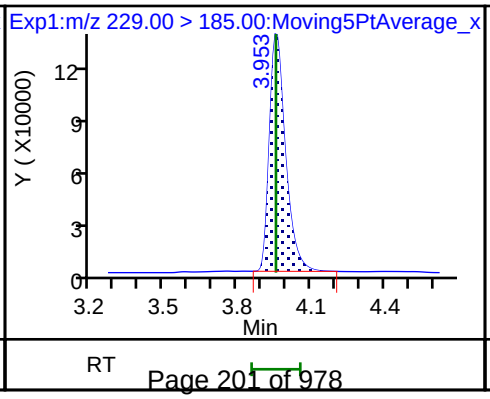
* 8 13C3-PFBA



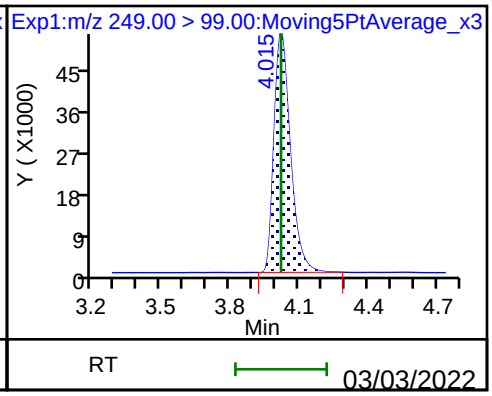
9 Hydrolyzed PSDA



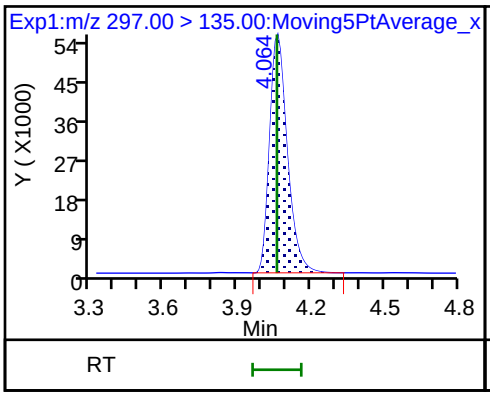
10 PMPA



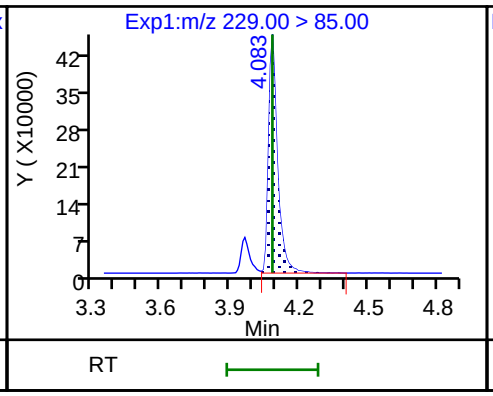
11 PFPrS



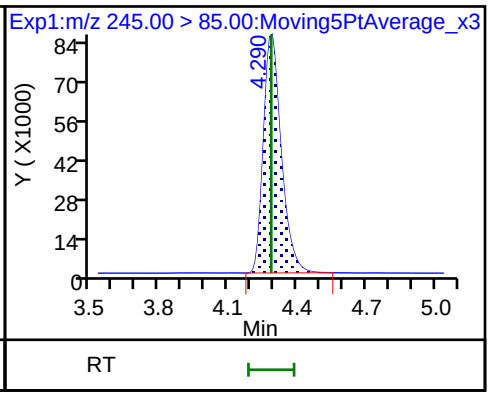
12 NVHOS



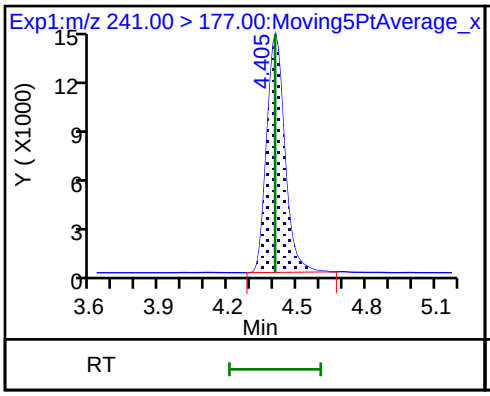
13 PFECA F



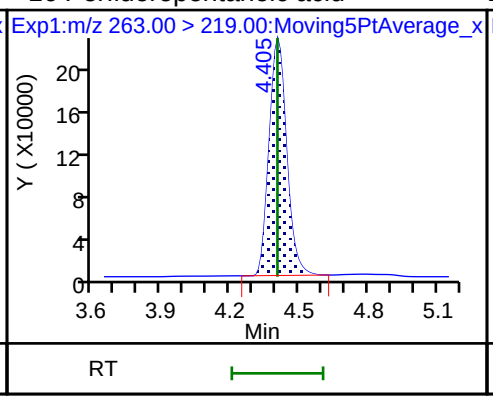
14 PFO2HxA



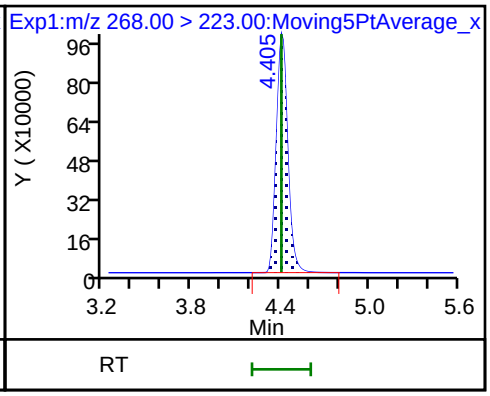
15 3:3 FTCA



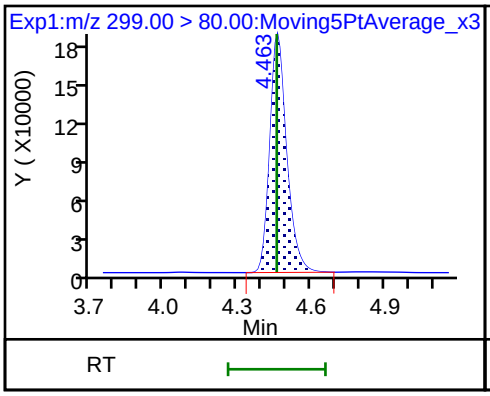
16 Perfluoropentanoic acid



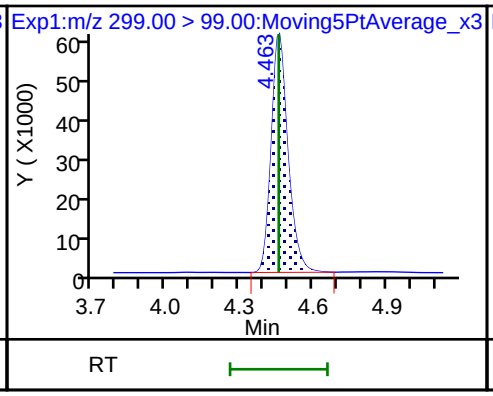
D 17 13C5 PFPeA



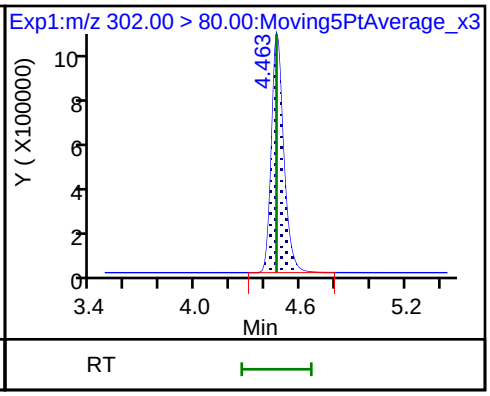
18 Perfluorobutanesulfonic acid



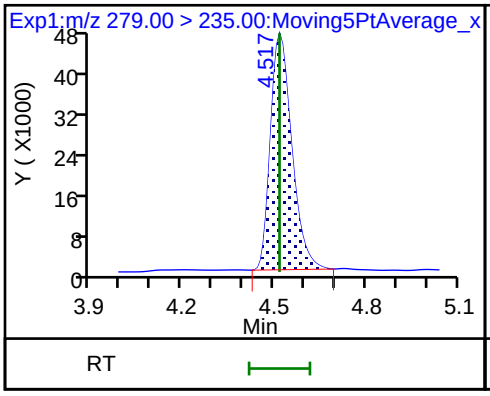
18 Perfluorobutanesulfonic acid



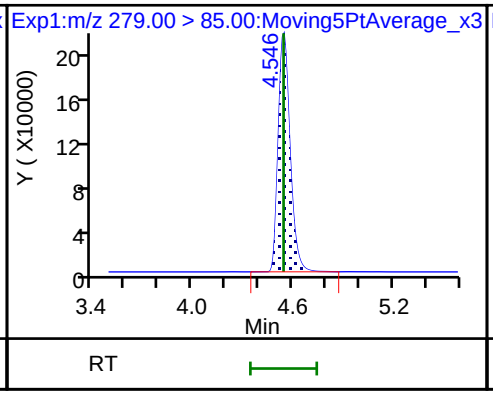
D 19 13C3 PFBS



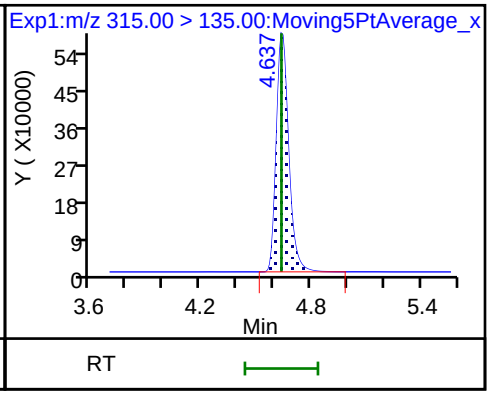
20 PEPA



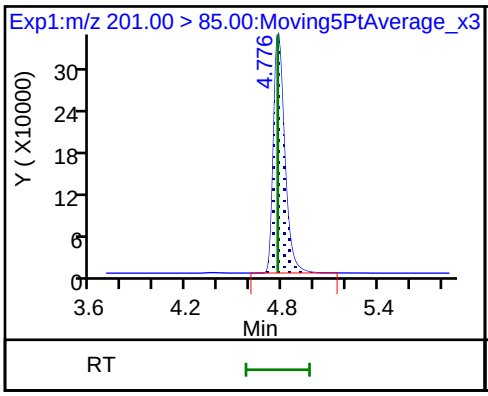
21 PFECA A



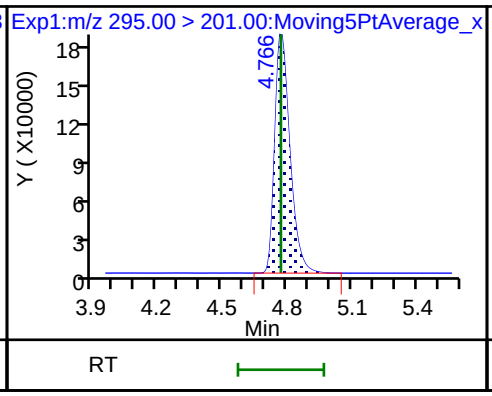
22 PES



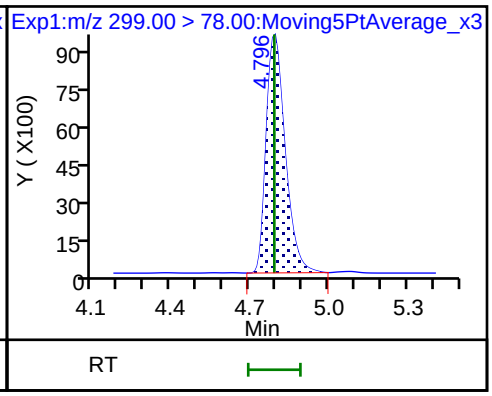
23 PFECA B



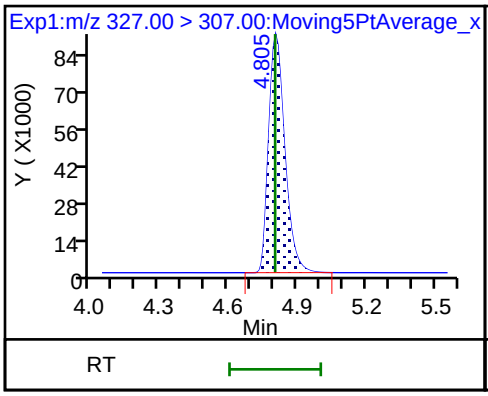
23 PFECA B



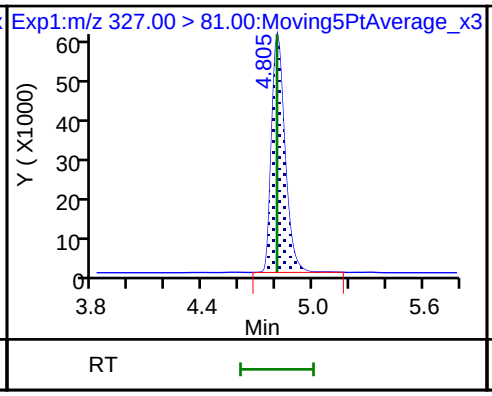
110 FBSA



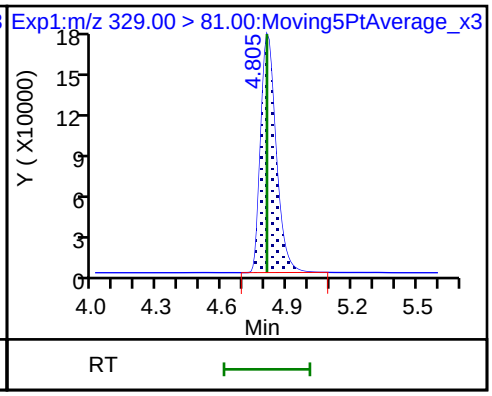
24 4:2 FTS



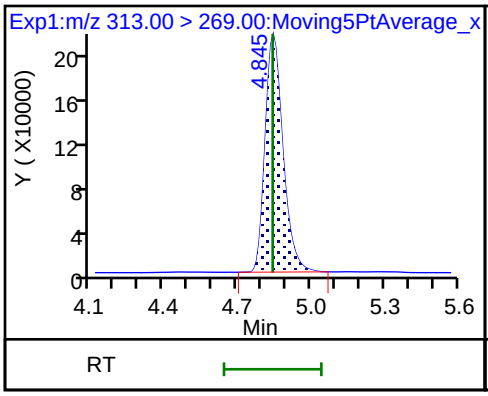
24 4:2 FTS



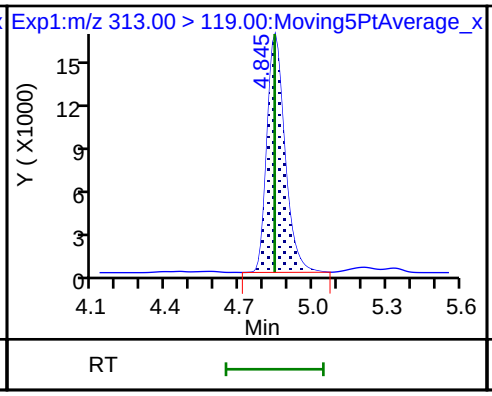
D 25 M2-4:2 FTS



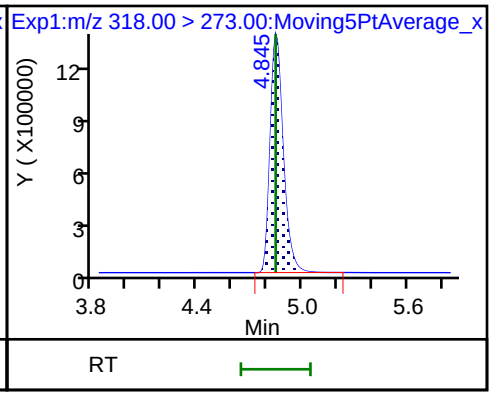
26 Perfluorohexanoic acid



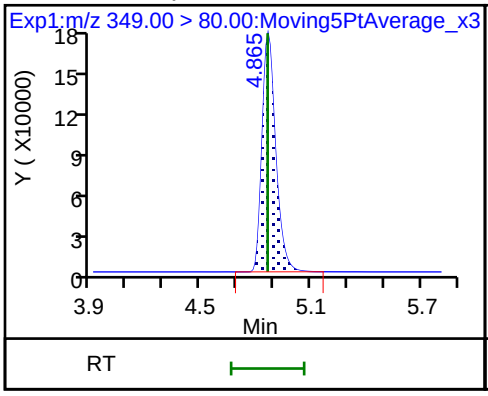
26 Perfluorohexanoic acid



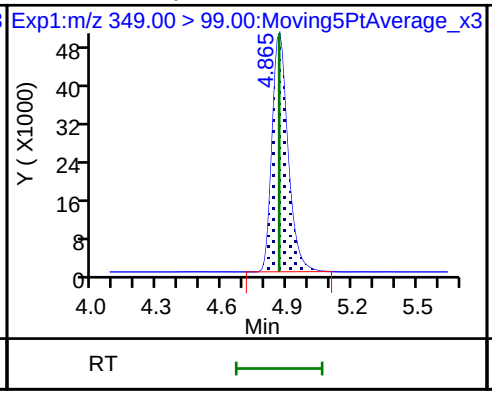
D 27 13C5 PFHxA



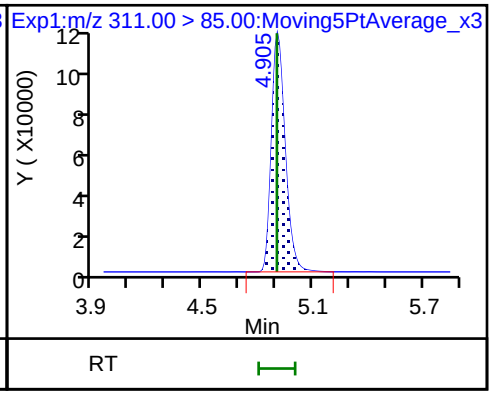
28 Perfluoropentanesulfonic acid



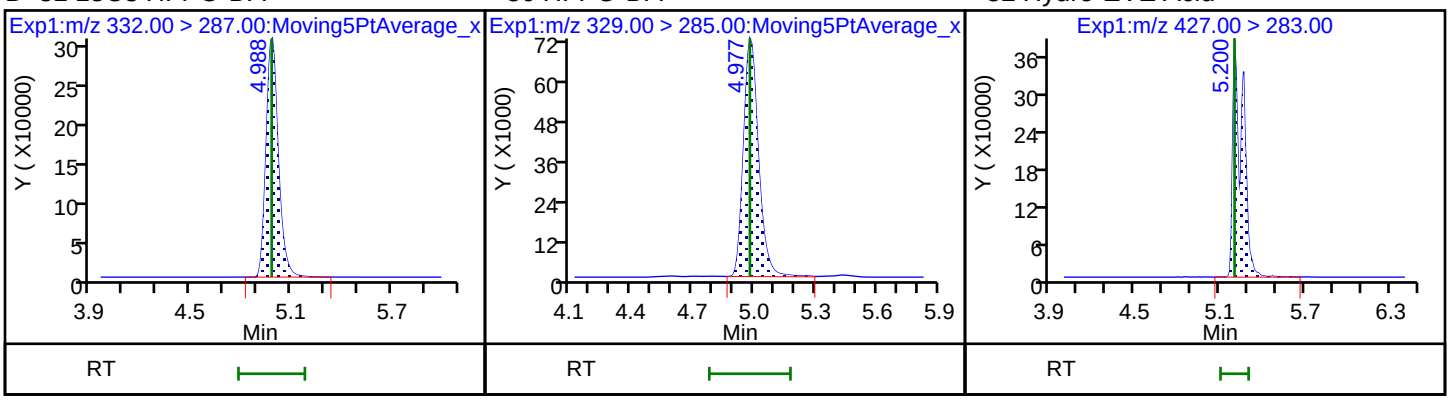
28 Perfluoropentanesulfonic acid



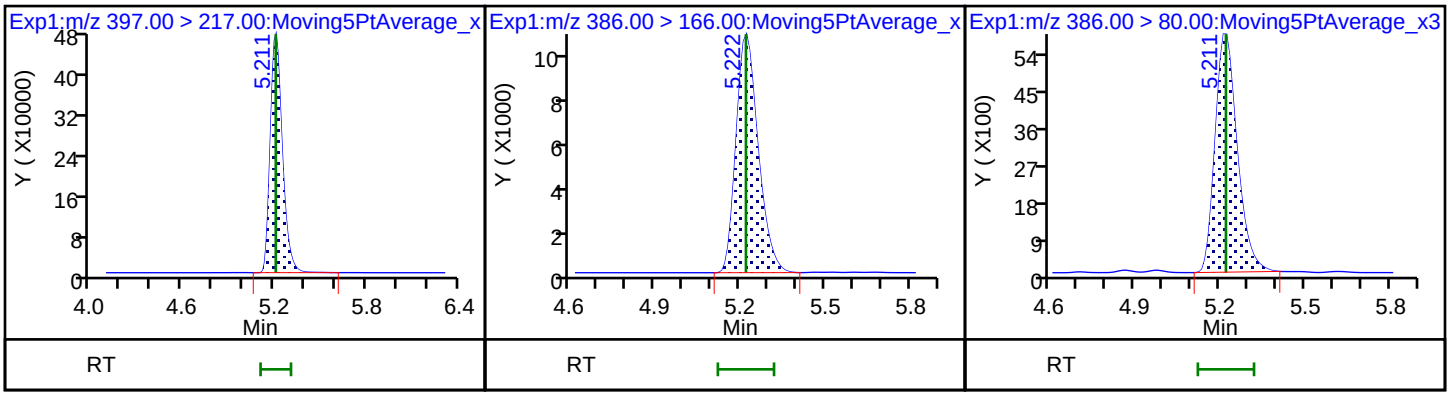
29 PFO3OA



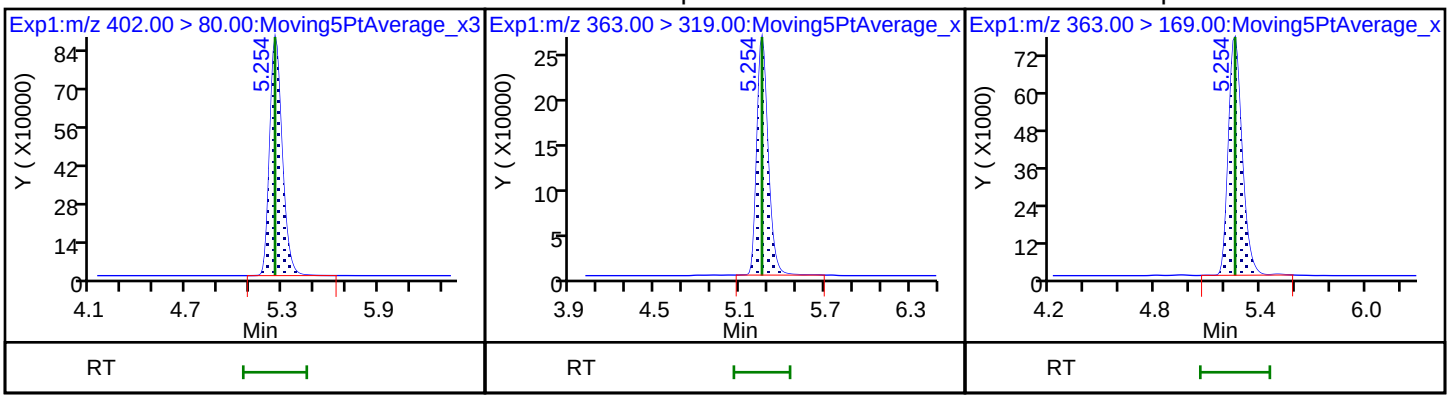
D 31 13C3 HFPO-DA | 30 HFPO-DA | 32 Hydro-EVE Acid



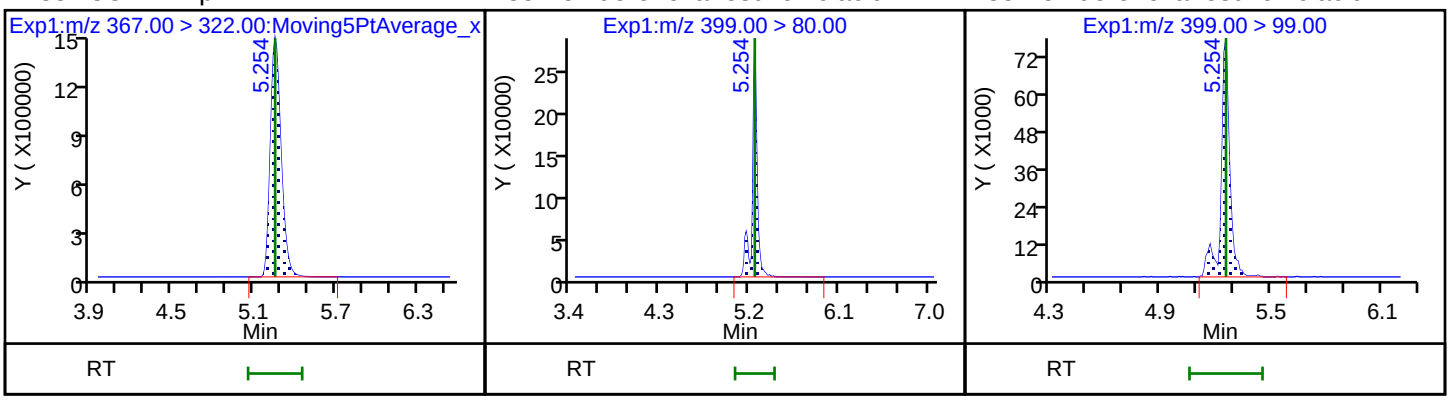
33 R-PSDCA | 108 FBSEE | 108 FBSEE



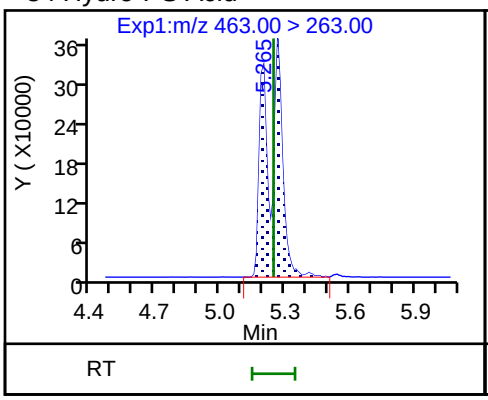
D 37 13C3 PFHxS | 36 Perfluoroheptanoic acid | 36 Perfluoroheptanoic acid



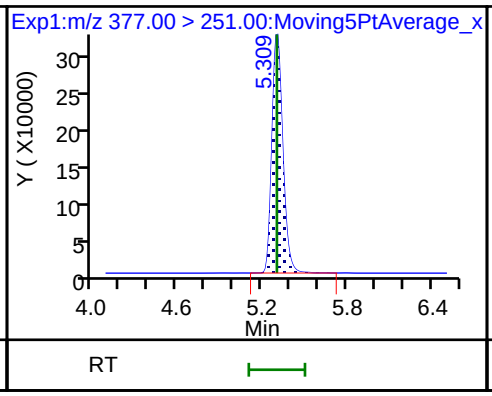
D 38 13C4 PFHpA | 35 Perfluorohexanesulfonic acid | 35 Perfluorohexanesulfonic acid



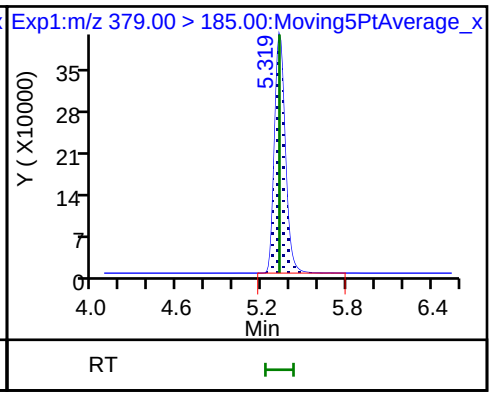
34 Hydro-PS Acid



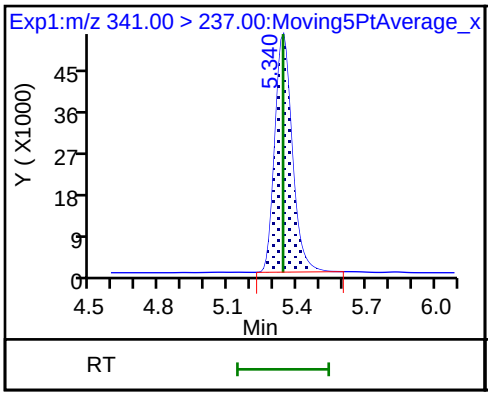
39 DONA



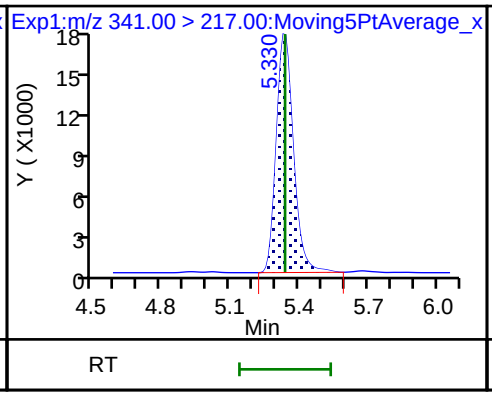
40 PFECA G



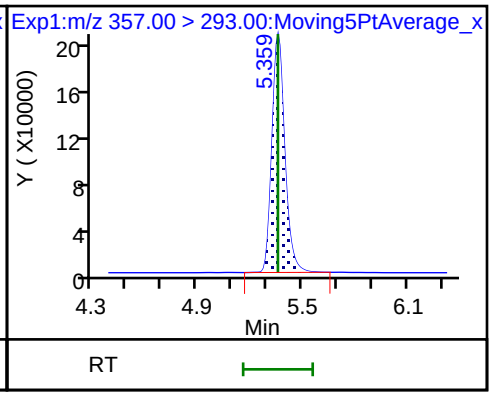
41 5:3 FTCA



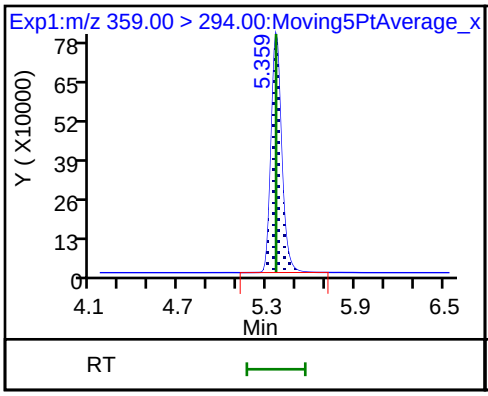
41 5:3 FTCA



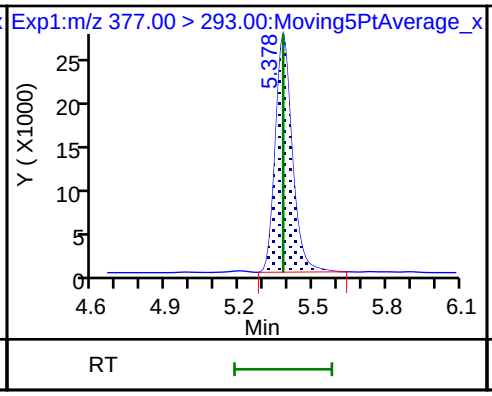
42 6:2 FTUCA



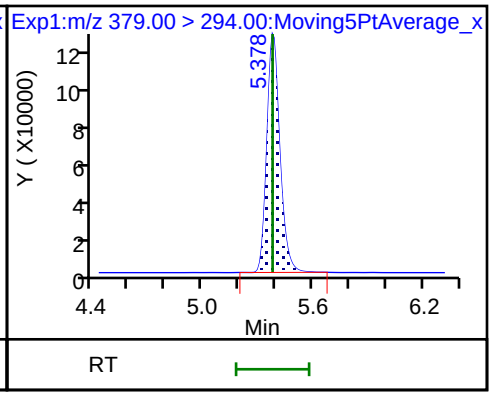
D 43 13C-6:2 FTUCA



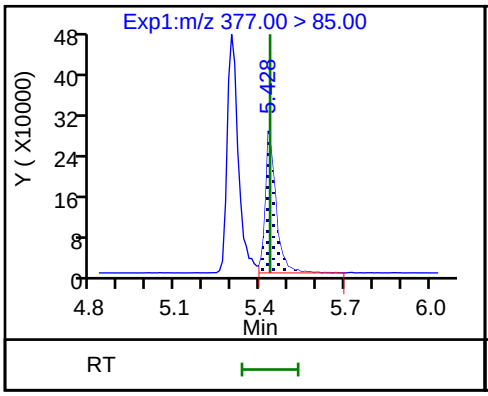
44 6:2 FTCA



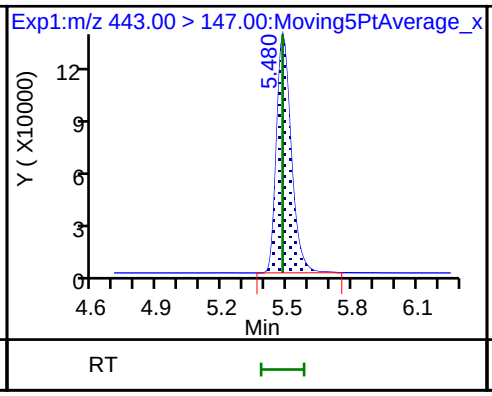
D 45 13C-6:2 FTCA



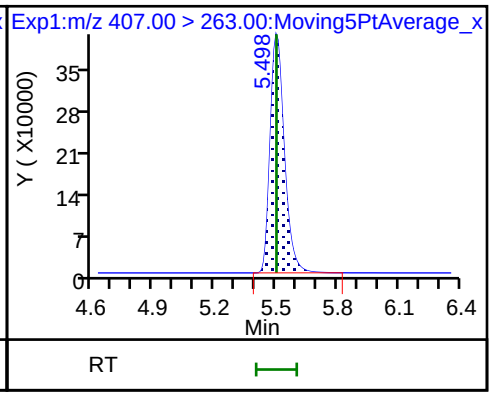
46 PFO4DA



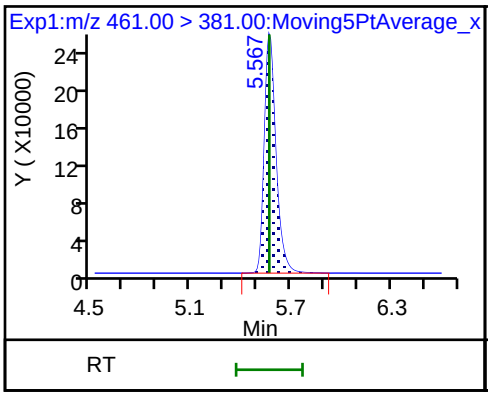
47 PS Acid



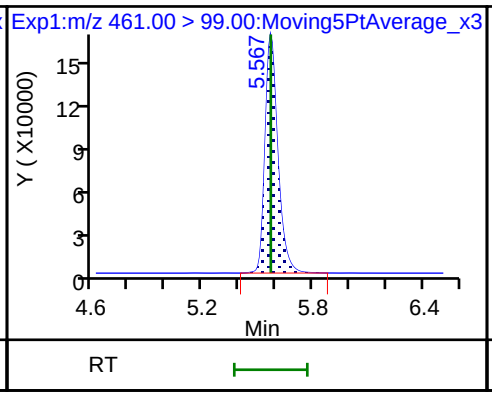
48 EVE Acid



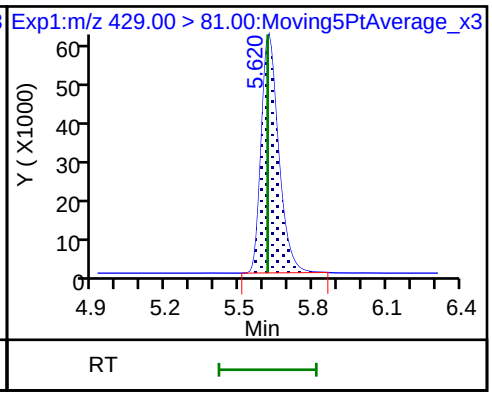
49 PFECHS



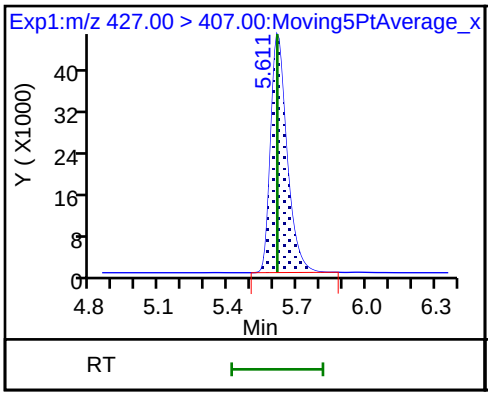
49 PFECHS



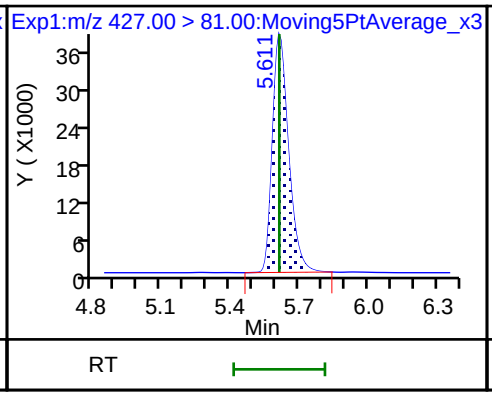
D 52 M2-6:2 FTS



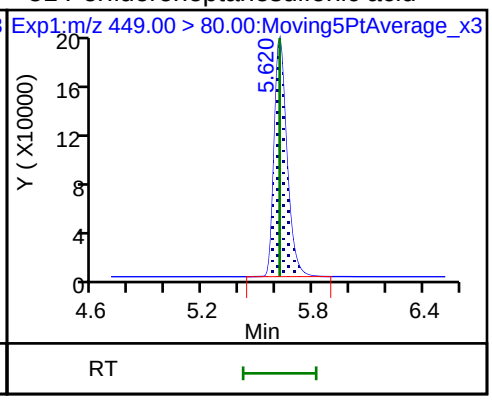
50 6:2 FTS



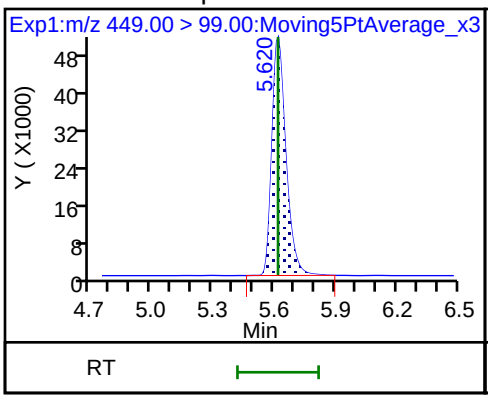
50 6:2 FTS



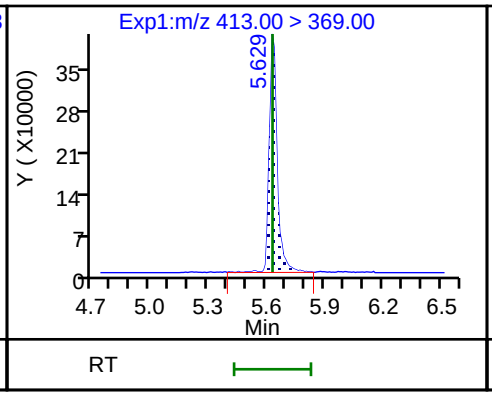
51 Perfluoroheptanesulfonic acid



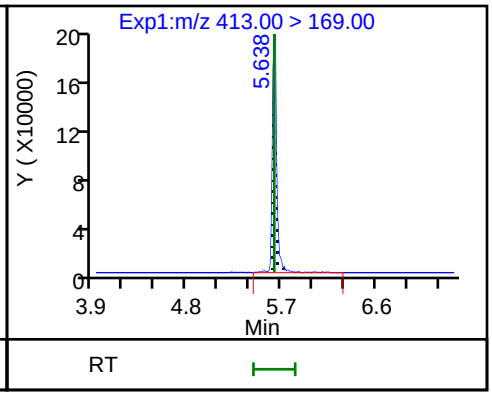
51 Perfluoroheptanesulfonic acid



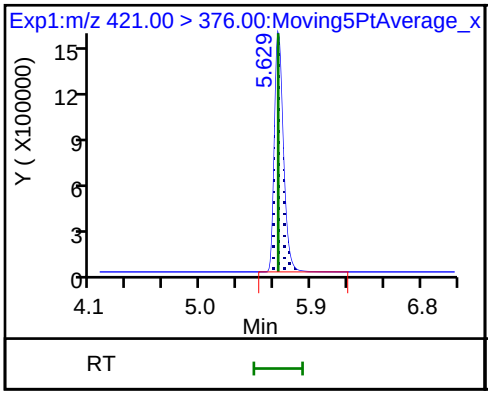
53 Perfluorooctanoic acid



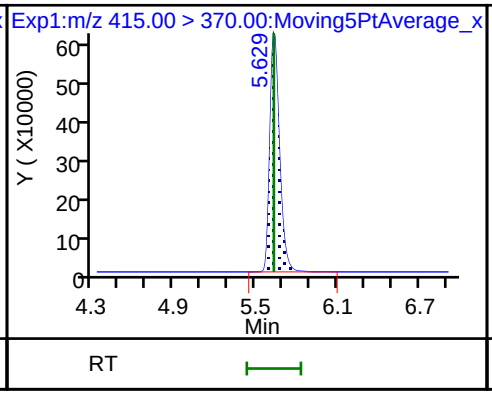
53 Perfluorooctanoic acid



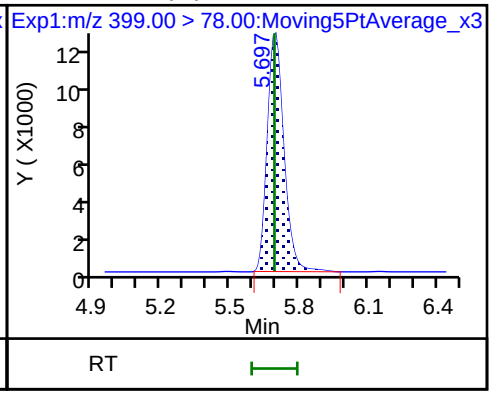
D 54 13C8 PFOA



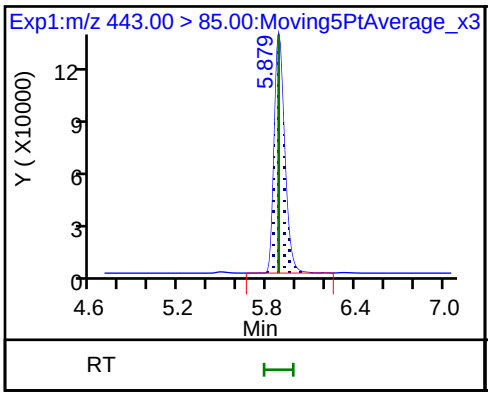
* 55 13C2 PFOA



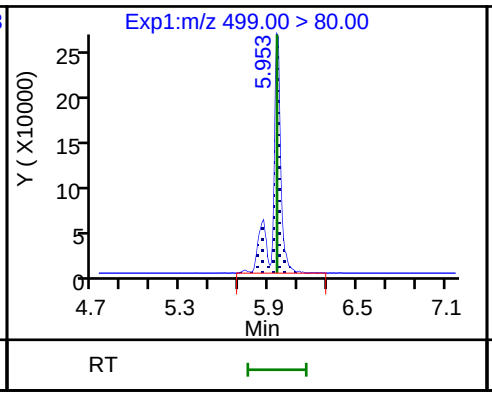
106 FHxSA (M)



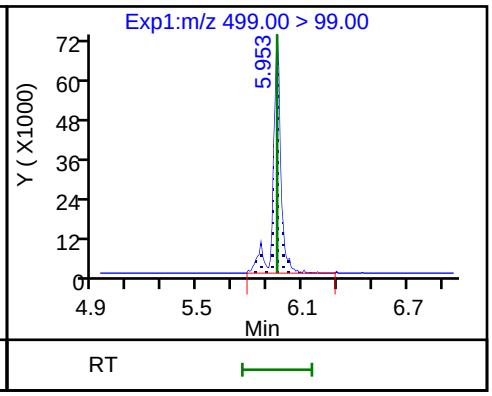
56 TAF



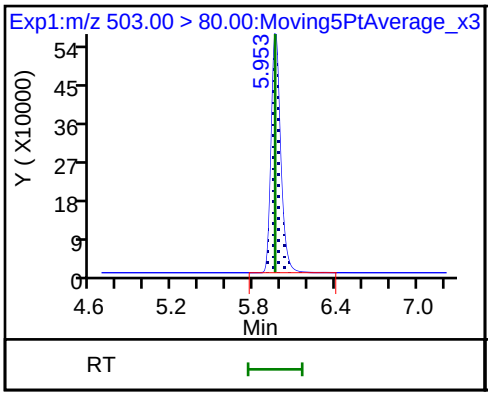
57 Perfluorooctanesulfonic acid



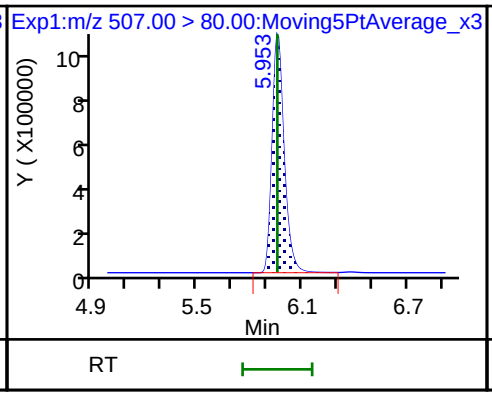
57 Perfluorooctanesulfonic acid



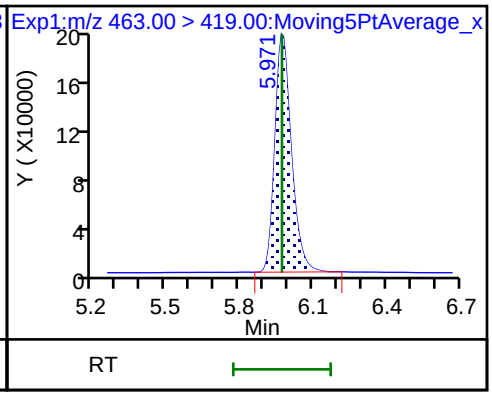
* 59 13C4 PFOS



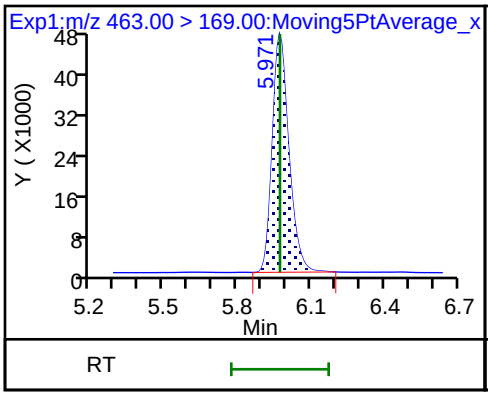
D 58 13C8 PFOS



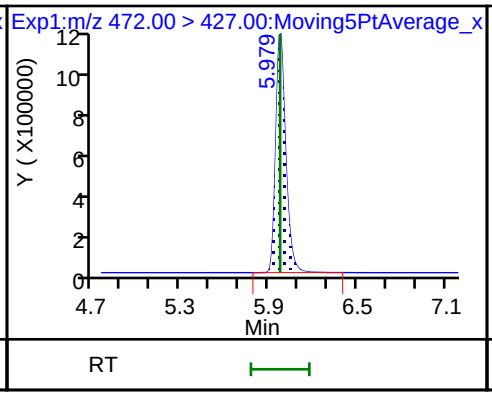
61 Perfluorononanoic acid



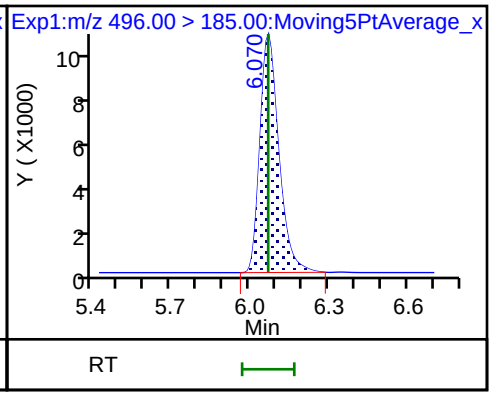
61 Perfluorononanoic acid



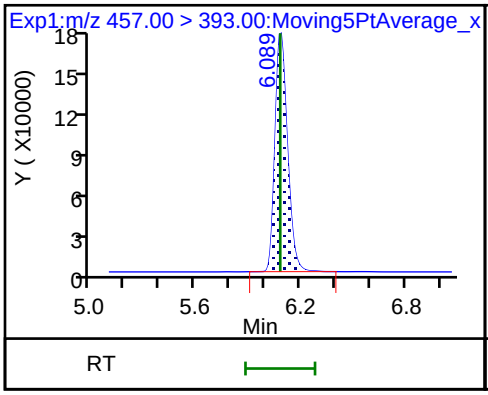
D 60 13C9 PFNA



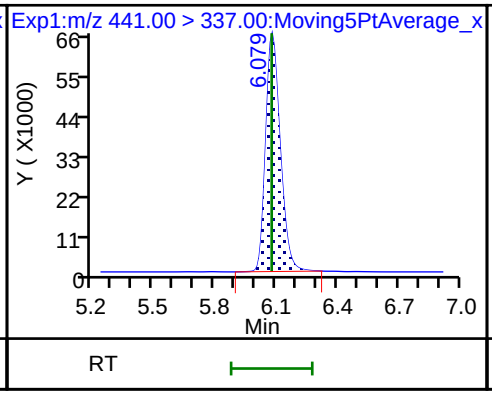
109 HFPO-TrA



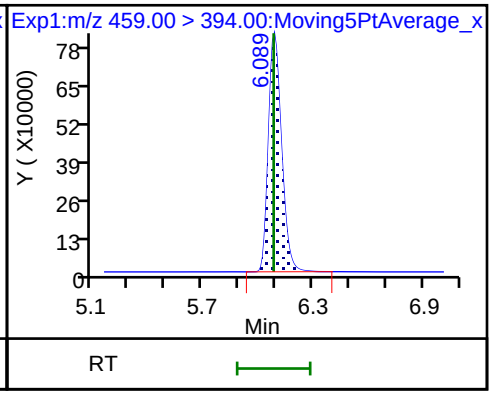
63 8:2 FTUCA



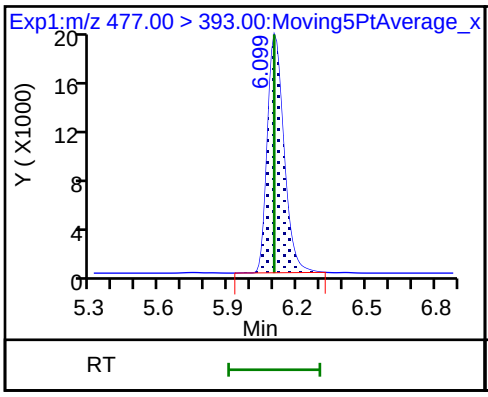
62 7:3 FTCA



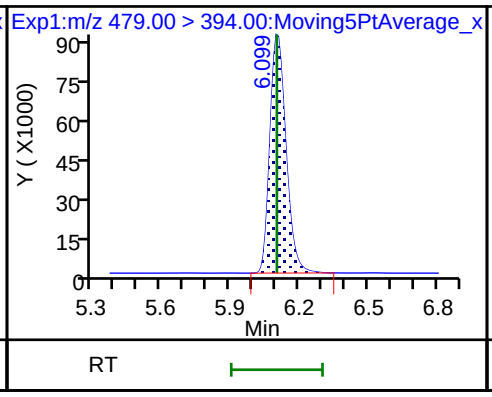
D 64 13C-8:2 FTUCA



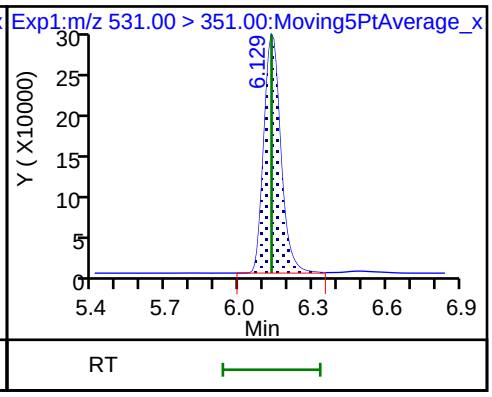
65 8:2 FTCA



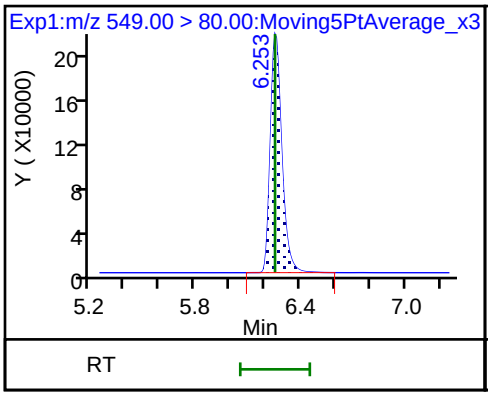
D 66 13C-8:2 FTCA



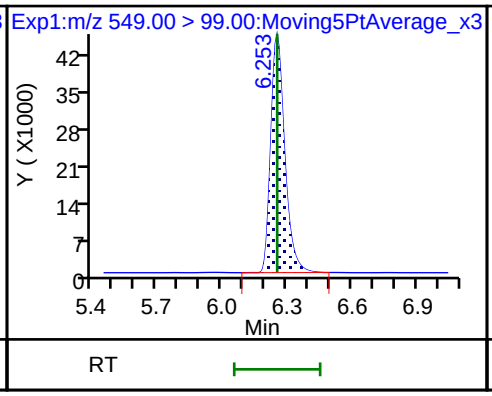
67 9ClFOS



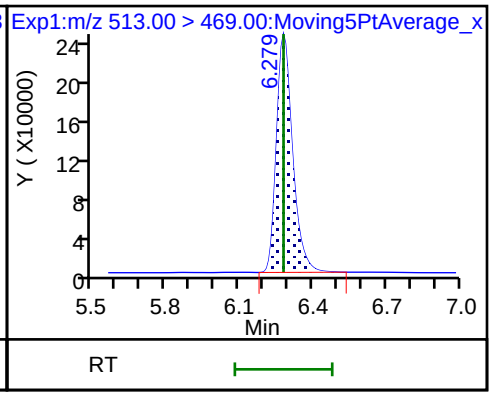
68 Perfluorononanesulfonic acid



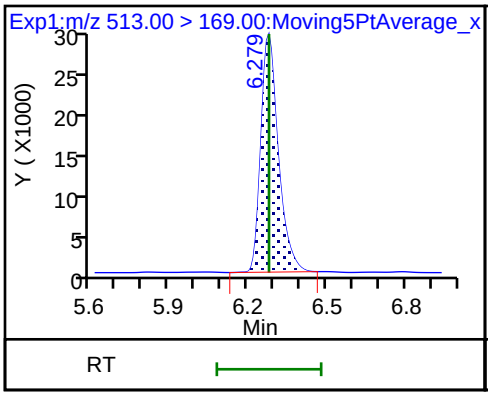
68 Perfluorononanesulfonic acid



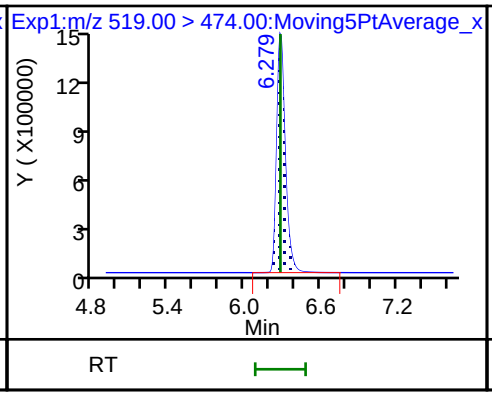
69 Perfluorodecanoic acid



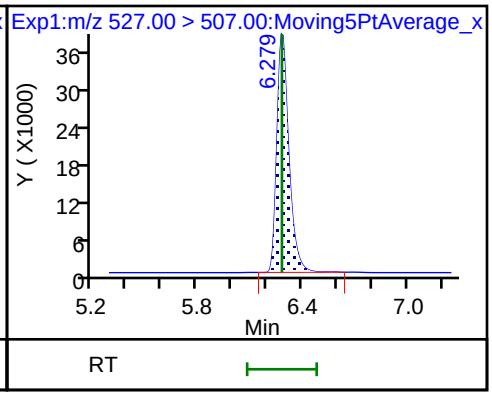
69 Perfluorodecanoic acid



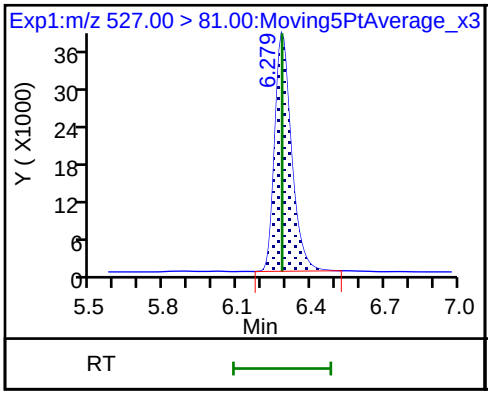
D 71 13C6 PFDA



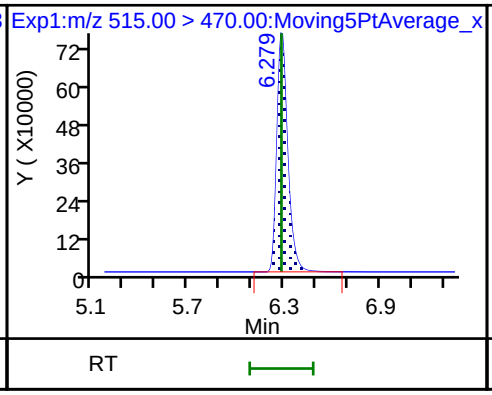
72 8:2 FTS



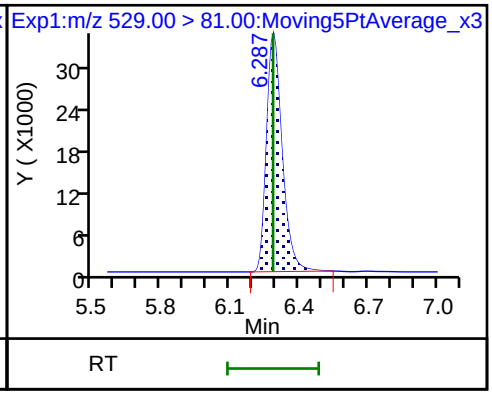
72 8:2 FTS



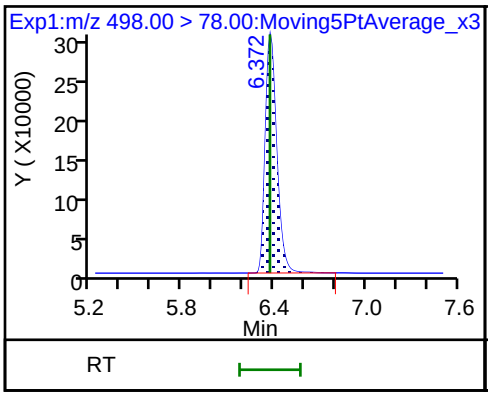
* 70 13C2 PFDA



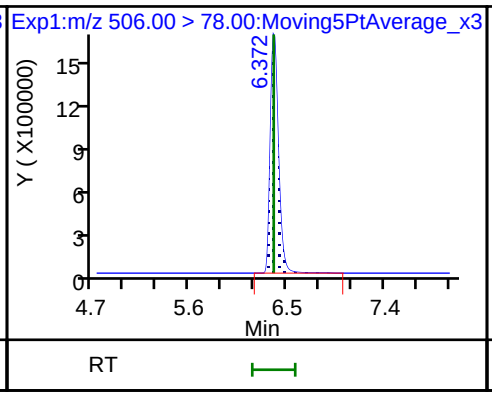
D 73 M2-8:2 FTS



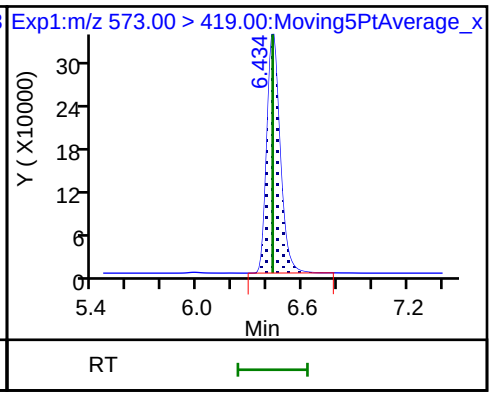
75 Perfluorooctanesulfonamide



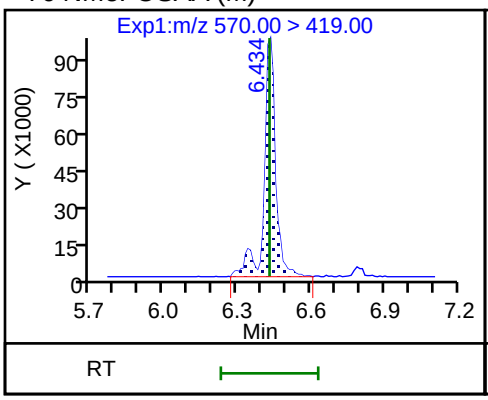
D 74 13C8 FOSA



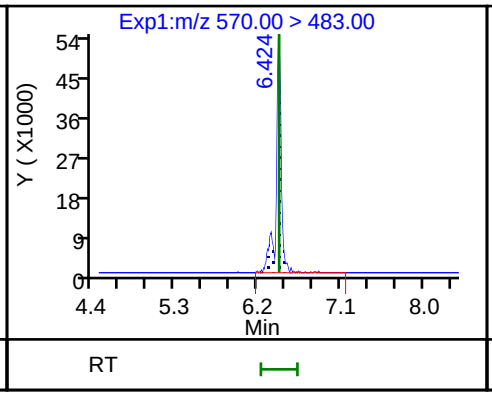
D 77 d3-NMeFOSAA



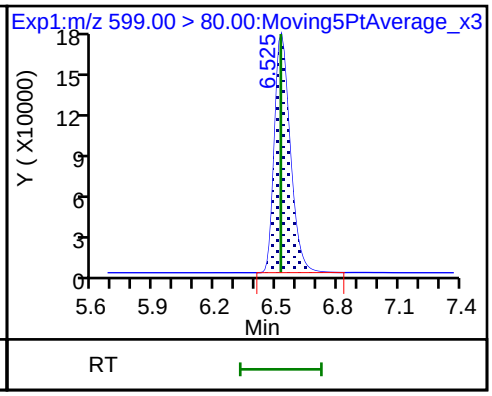
76 NMeFOSAA (M)



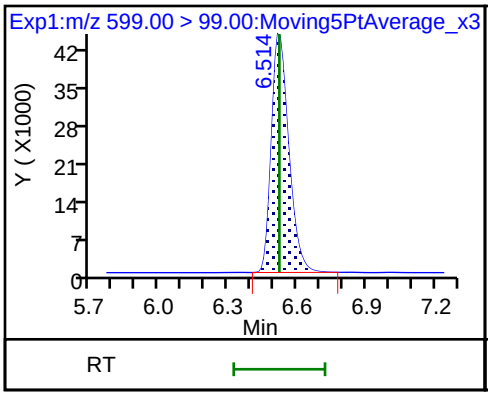
76 NMeFOSAA



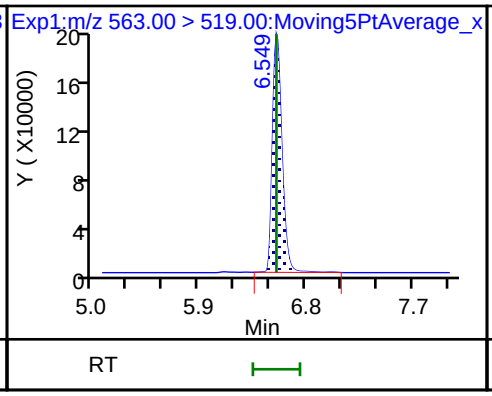
78 Perfluorodecanesulfonic acid



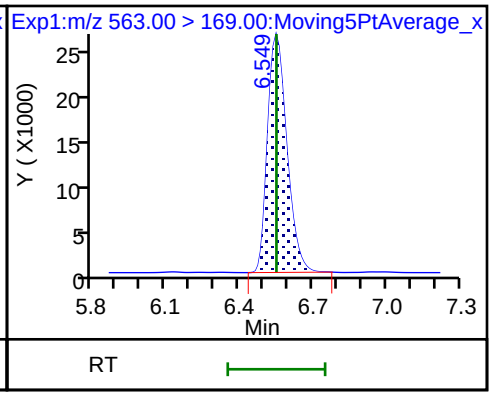
78 Perfluorodecanesulfonic acid



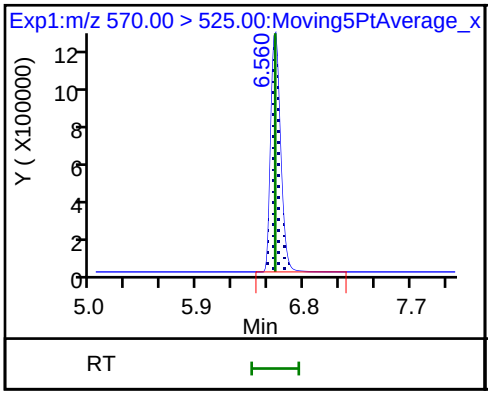
79 Perfluoroundecanoic acid



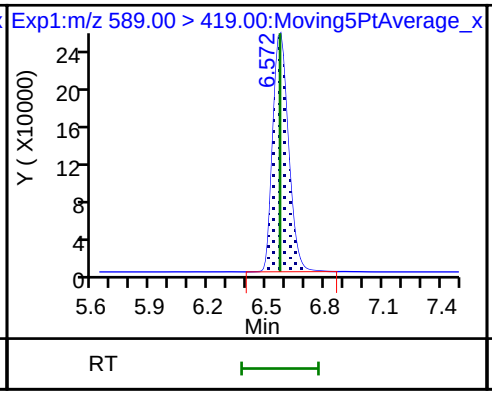
79 Perfluoroundecanoic acid



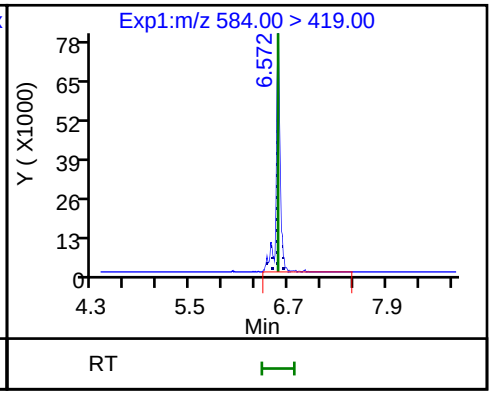
D 80 13C7 PFUnA



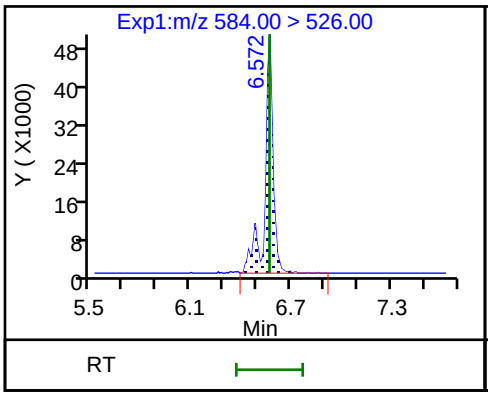
D 81 d5-NEtFOSAA



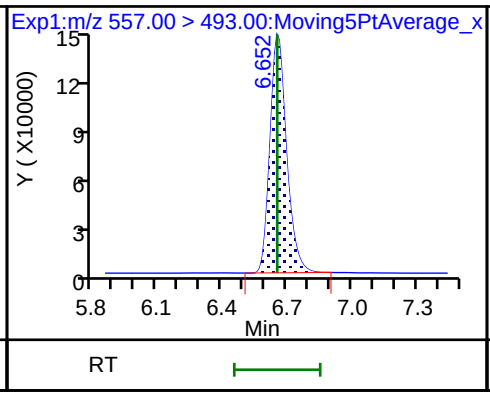
82 NEtFOSAA



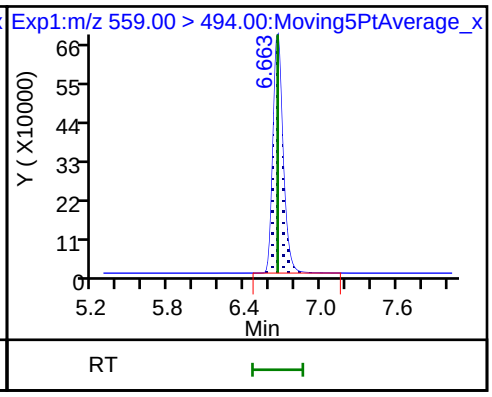
82 NEtFOSAA



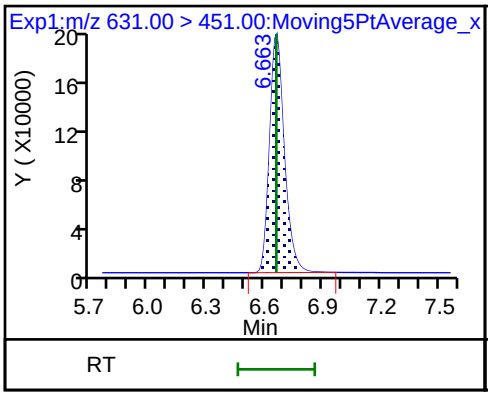
83 10:2 FTUCA



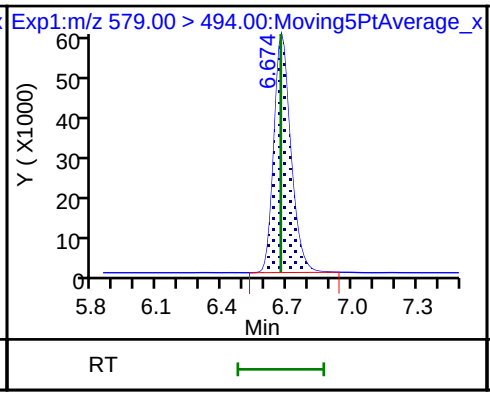
D 85 13C-10:2 FTUCA



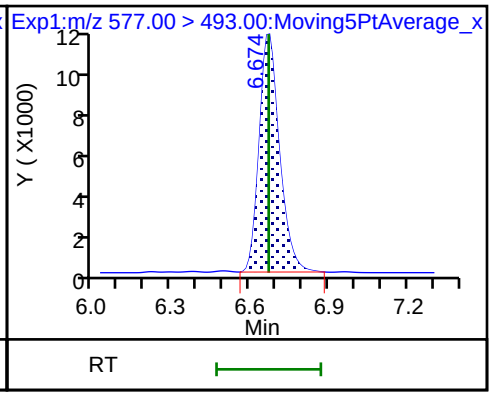
84 11ClFOS



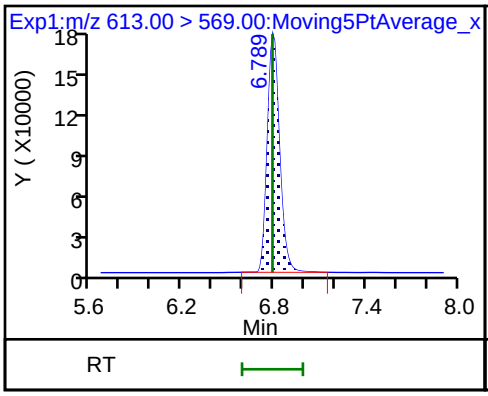
D 87 13C-10:2 FTCA



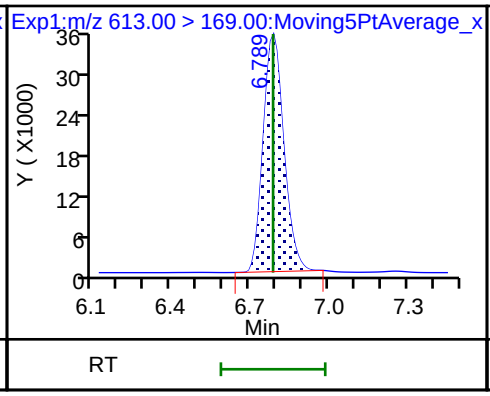
86 10:2 FTCA



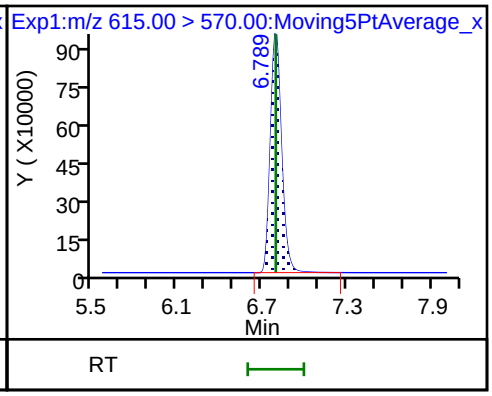
88 Perfluorododecanoic acid



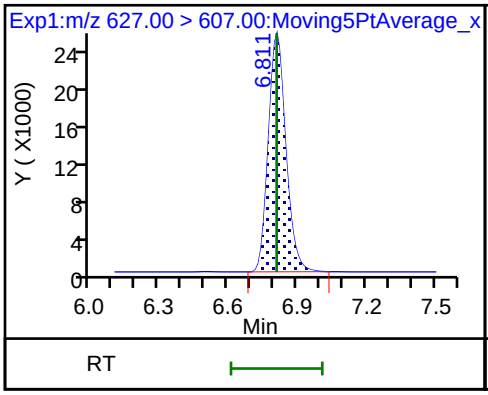
88 Perfluorododecanoic acid



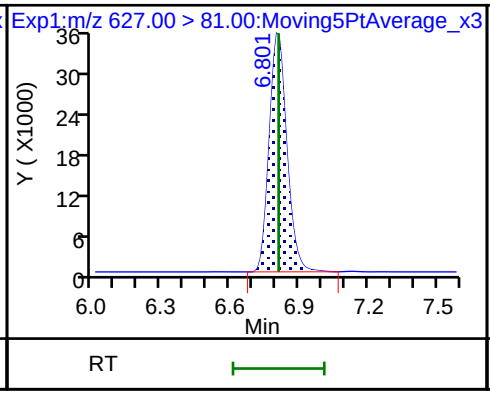
D 89 13C2-PFDoDA



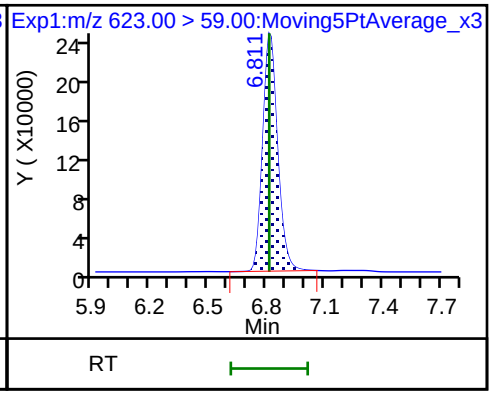
90 10:2 FTS



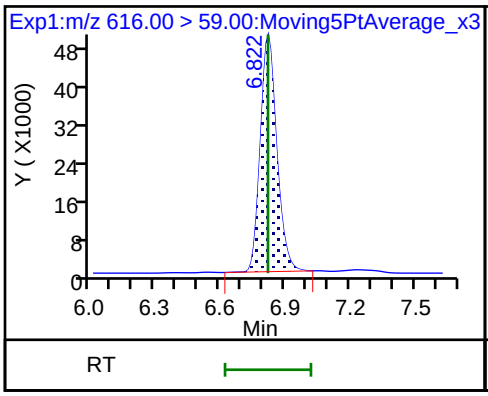
90 10:2 FTS



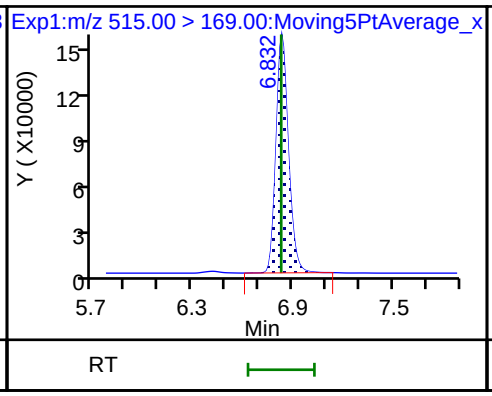
D 91 d7-N-MeFOSE-M



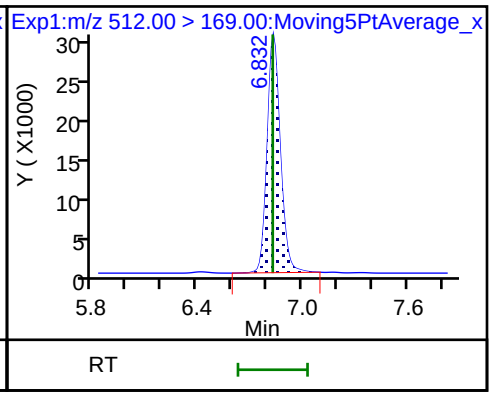
92 N-MeFOSE-M



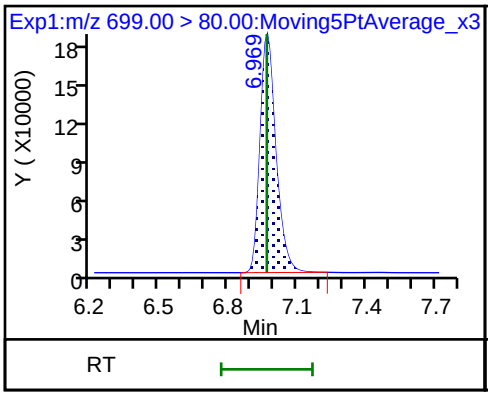
D 93 d3-NMePFOSA



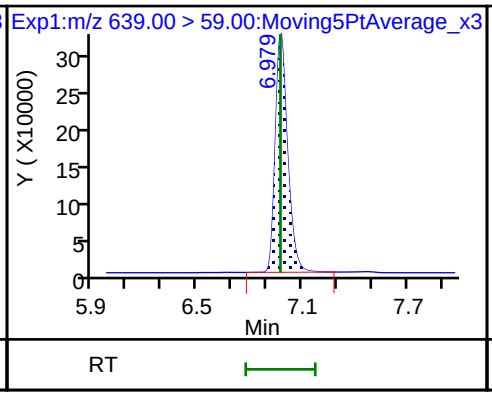
94 NMeFOSA



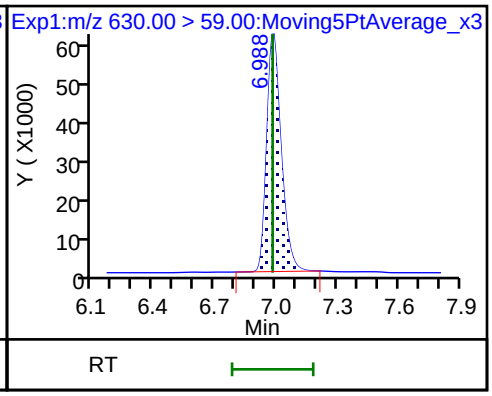
95 PFDoS



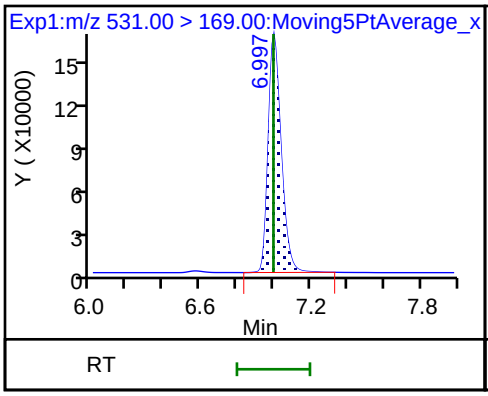
D 96 d9-N-EtFOSE-M



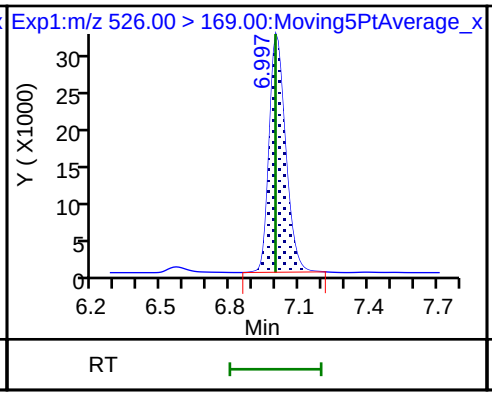
97 N-EtFOSE-M



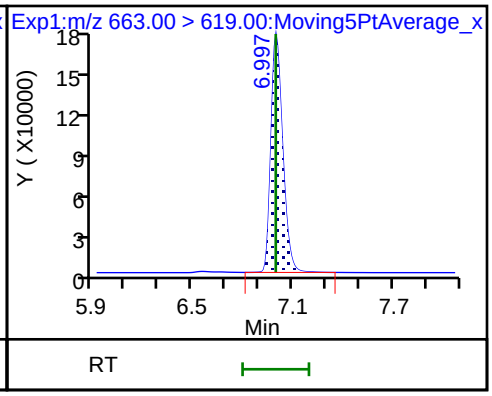
D 98 d5-NEtPFOSA



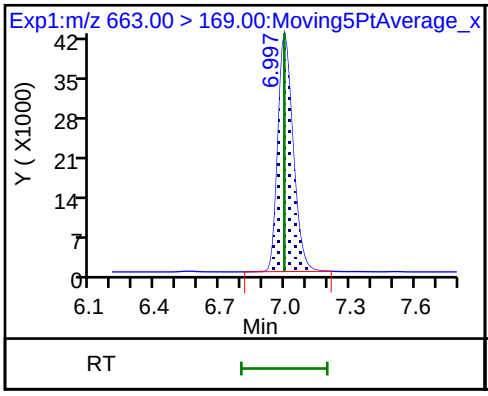
100 N-EtFOSA-M



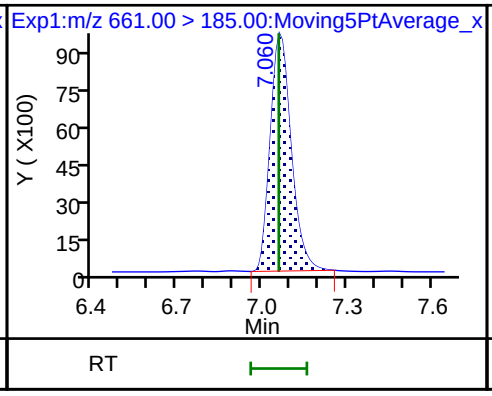
99 Perfluorotridecanoic acid



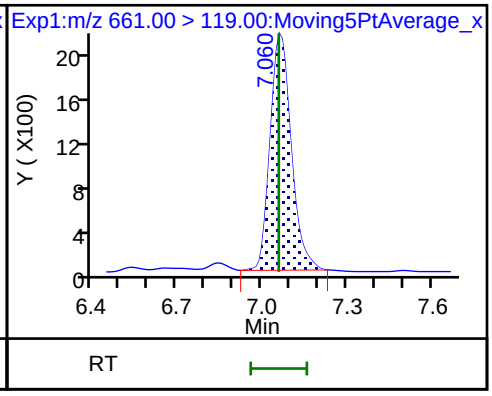
99 Perfluorotridecanoic acid



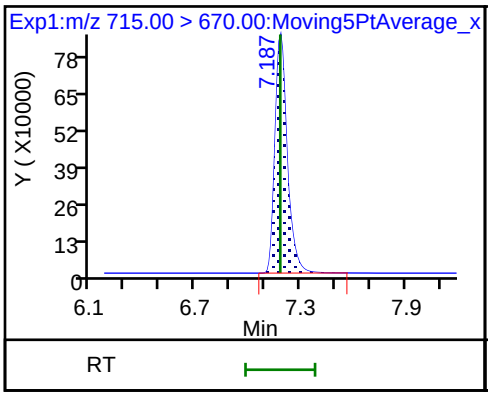
105 HFPOTeA



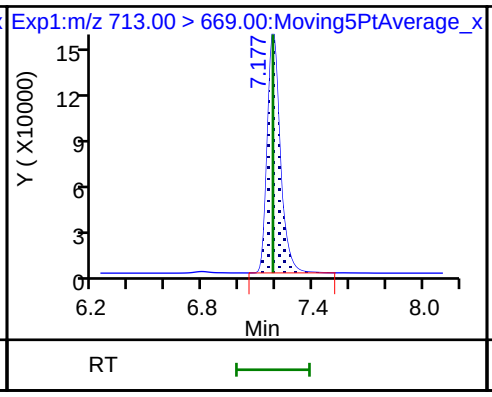
105 HFPOTeA



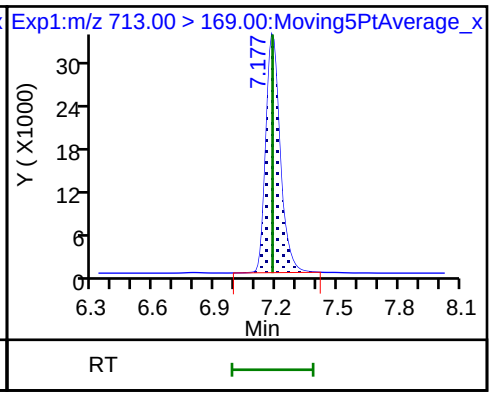
D 102 13C2 PFTeDA



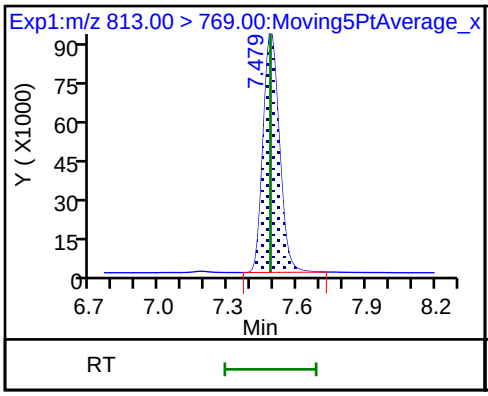
101 Perfluorotetradecanoic acid



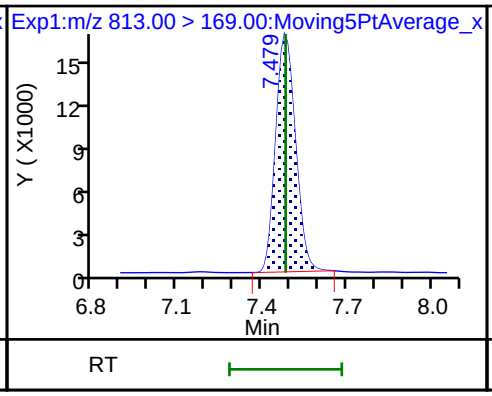
101 Perfluorotetradecanoic acid



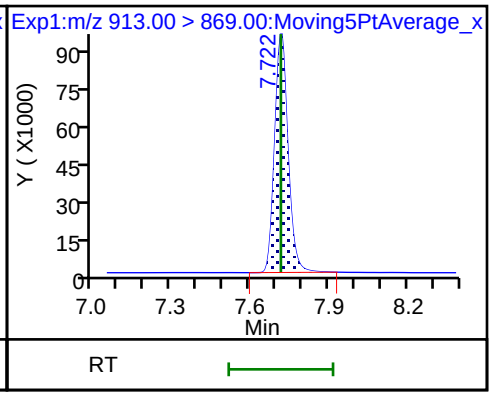
103 Perfluorohexadecanoic acid



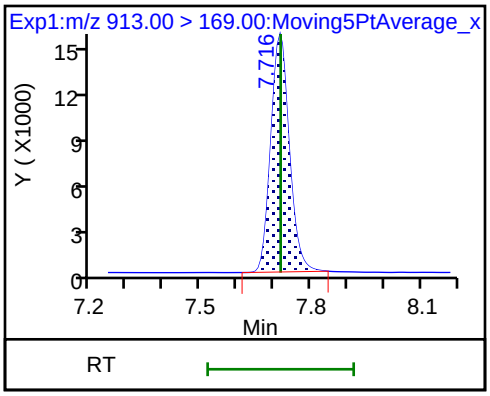
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

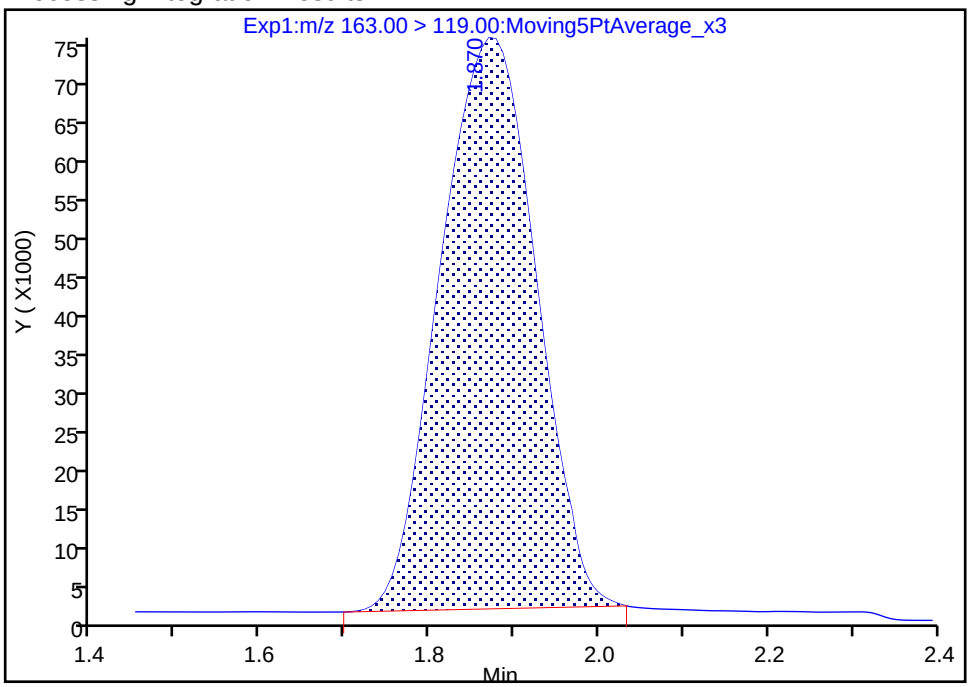
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-03.d				
Injection Date:	01-Mar-2022 21:37:30	Instrument ID:	30728		
Lims ID:	IC CAL 3				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20004	Worklist Smp#:	3
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

2 PPF Acid, CAS: 422-64-0

Signal: 1

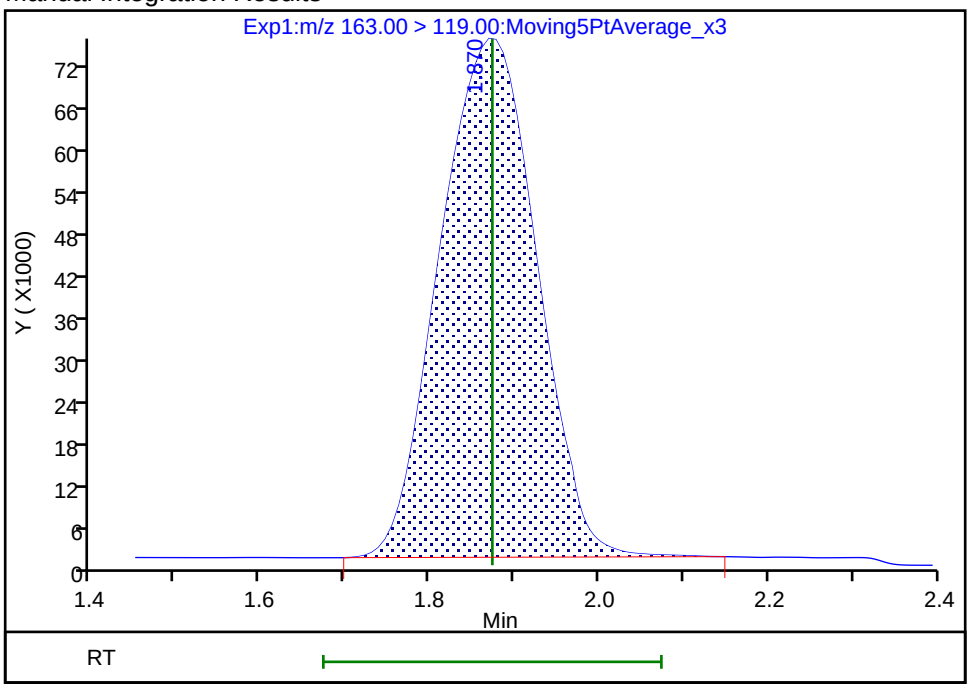
Processing Integration Results

RT: 1.87
Area: 584241
Amount: 1.939091
Amount Units: ng/ml



Manual Integration Results

RT: 1.87
Area: 592515
Amount: 1.962703
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:22:05
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

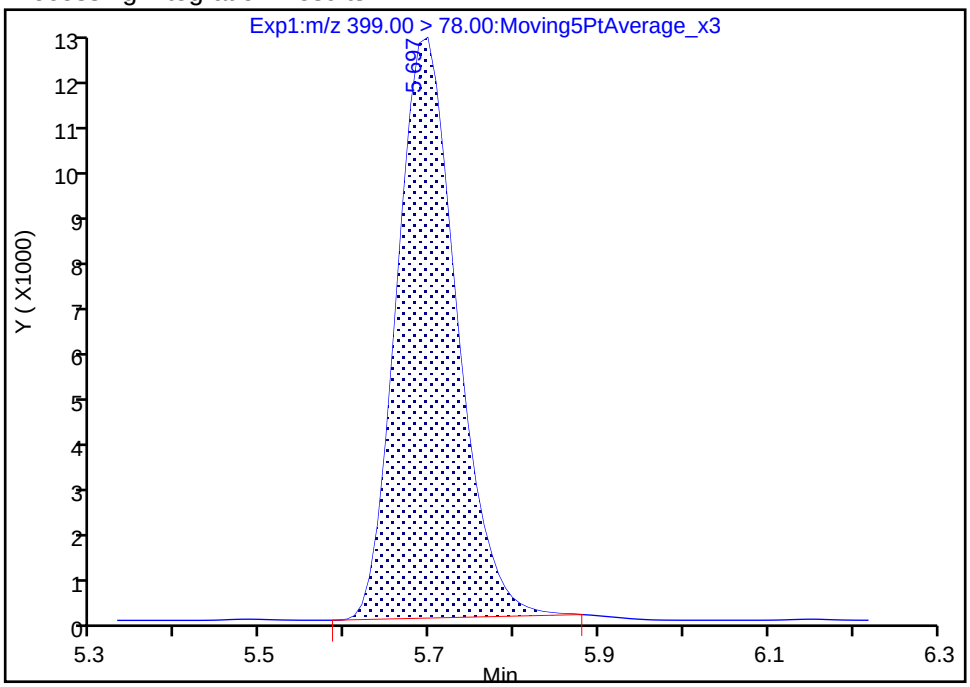
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-03.d				
Injection Date:	01-Mar-2022 21:37:30	Instrument ID:	30728		
Lims ID:	IC CAL 3				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20004	Worklist Smp#:	3
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

106 FHxSA, CAS: 41997-13-1

Signal: 1

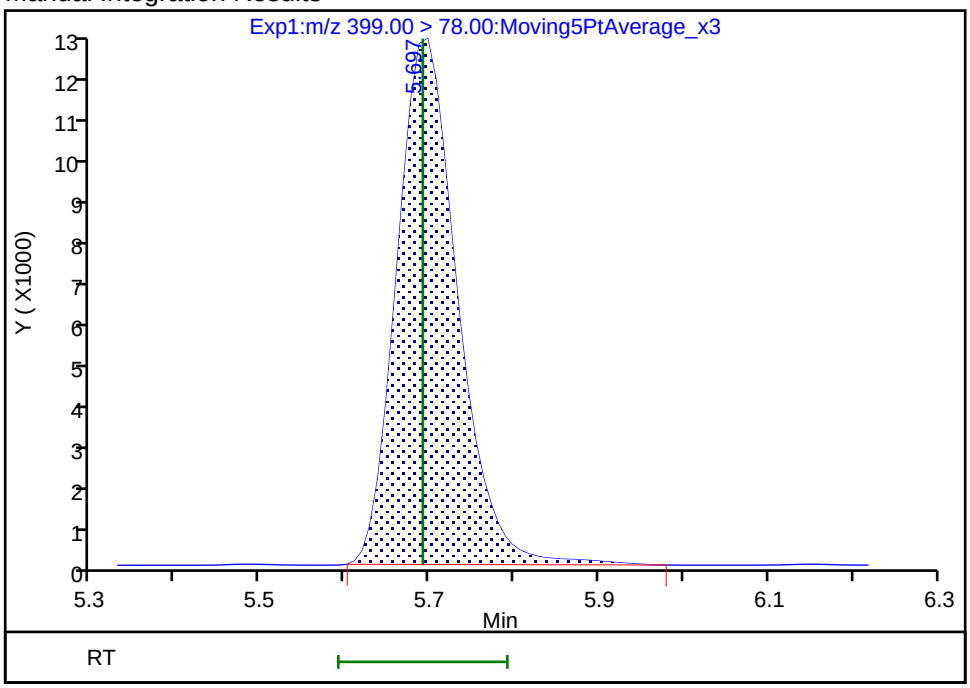
Processing Integration Results

RT: 5.70
Area: 59032
Amount: 1.785189
Amount Units: ng/ml



Manual Integration Results

RT: 5.70
Area: 60125
Amount: 1.871767
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:22:24
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

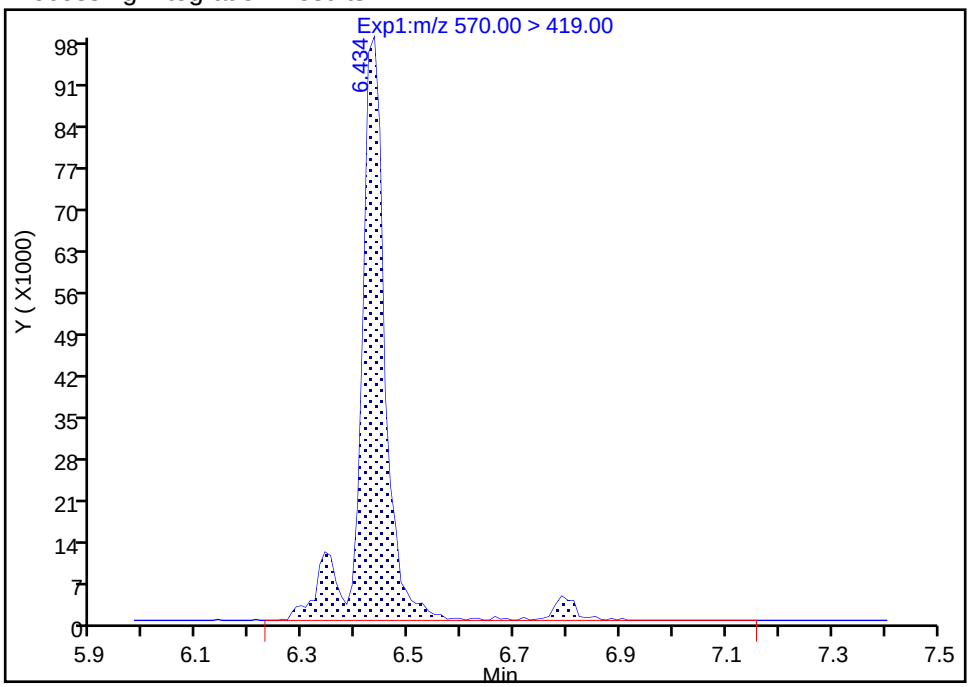
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-03.d				
Injection Date:	01-Mar-2022 21:37:30	Instrument ID:	30728		
Lims ID:	IC CAL 3				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20004	Worklist Smp#:	3
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

76 NMeFOSAA, CAS: 2355-31-9

Signal: 1

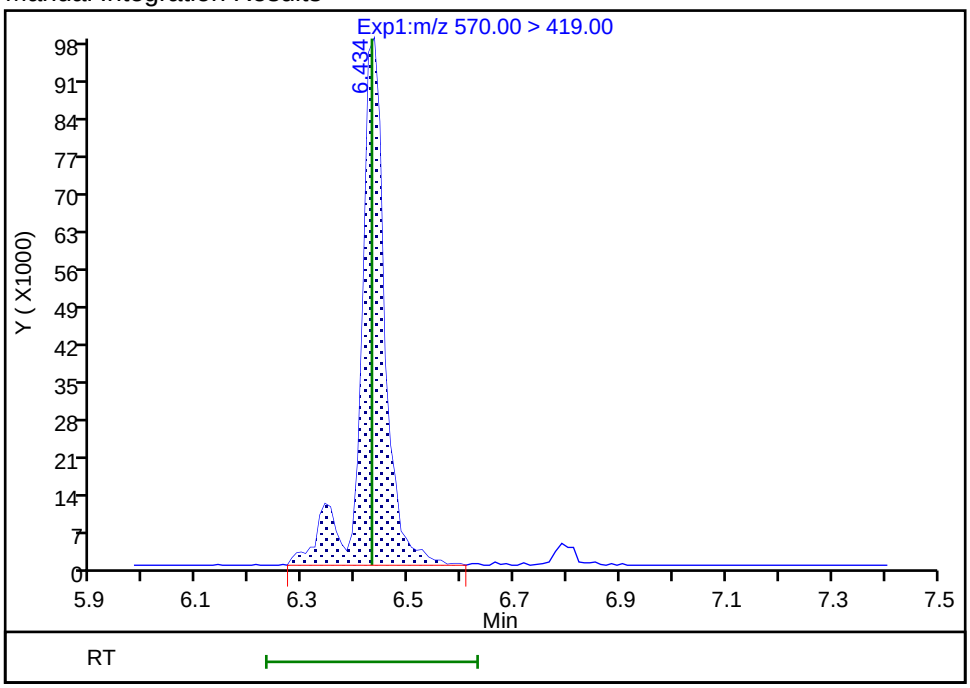
Processing Integration Results

RT: 6.43
Area: 327385
Amount: 2.075257
Amount Units: ng/ml



Manual Integration Results

RT: 6.43
Area: 314301
Amount: 2.004192
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:22:38

Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-04.d
Lims ID: IC CAL 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 01-Mar-2022 21:48:35 ALS Bottle#: 20005 Worklist Smp#: 4
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL 4
Misc. Info.: Plate: 1 Rack: 1 410-0051412-004
Operator ID: US19_USR_INS20261 Instrument ID: 30728
Sublist: chrom-PFAS_30728_XList*sub16

Method: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 01-Mar-2022 23:53:31 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1606

First Level Reviewer: polaskia Date: 01-Mar-2022 23:23:44
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.059	1.065	-0.006	0.278	1350432	8.16		104	22079	
1 MTP										
175.00 > 97.00	1.520	1.518	0.002	0.399	499642	8.32		104	12021	
2 PPF Acid										
163.00 > 119.00	1.877	1.874	0.003	0.493	2402063	8.26		103	7825	
3 PFMOAA										
179.00 > 85.00	2.887	2.891	-0.004	0.758	2030976	8.18		102	17482	
4 R-PSDA										
441.00 > 241.00	3.788	3.792	-0.004	0.850	176848	8.50		106	10236	
5 R-EVE										
405.00 > 217.00	3.788	3.793	-0.005	0.995	494789	8.75		109	38030	
D 6 13C4 PFBA										
217.00 > 172.00	3.809	3.816	-0.007	1.000	6202588	9.90		99.0	121324	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.809	3.816	-0.007	1.000	4431096	8.30		104	16278	
* 8 13C3-PFBA										
216.00 > 172.00	3.809	3.817	-0.008		2899118	5.00			6439	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.809	3.817	-0.008	0.855	691923	8.73		109	34580	
10 PMPA										
229.00 > 185.00	3.955	3.956	-0.001	1.038	2665880	8.42		105	32395	
11 PFPrS										
249.00 > 99.00	4.017	4.020	-0.003	1.055	1086905	7.63		104	55974	
12 NVHOS										
297.00 > 135.00	4.055	4.060	-0.005	0.910	1143368	8.28		104	57652	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 PFECA F										
229.00 > 85.00	4.075	4.082	-0.007	1.070	4934761	8.39		105	15255	
14 PFO2HxA										
245.00 > 85.00	4.281	4.286	-0.005	1.124	1955779	8.38		105	73784	
15 3:3 FTCA										
241.00 > 177.00	4.396	4.403	-0.007	1.000	334475	8.34		104	20064	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.396	4.404	-0.008	1.000	5104769	8.66		108	27016	
D 17 13C5 PFPeA										
268.00 > 223.00	4.396	4.404	-0.008	1.154	5076758	10.0		100	132572	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.456	4.460	-0.004	1.000	3657884	7.37	Target=3.14	104	85184	
299.00 > 99.00	4.456	4.460	-0.004	1.000	1154289		3.17(1.57-4.71)	104	39865	
D 19 13C3 PFBS										
302.00 > 80.00	4.456	4.462	-0.006	1.170	4772536	9.30		100	248195	
20 PEPA										
279.00 > 235.00	4.510	4.517	-0.007	1.184	924869	8.36		105	17280	
21 PFECA A										
279.00 > 85.00	4.539	4.543	-0.004	1.019	4413988	8.45		106	179283	
22 PES										
315.00 > 135.00	4.631	4.638	-0.007	1.039	11023045	7.51		105	398360	
23 PFECA B										
201.00 > 85.00	4.761	4.771	-0.010	1.068	6883544	8.55	Target=1.81	107	130322	
295.00 > 201.00	4.761	4.771	-0.010	1.068	3727514		1.85(0.90-2.71)	107	195166	
110 FBSA										
299.00 > 78.00	4.780	4.792	-0.012	1.073	216598	8.55		107	14614	
24 4:2 FTS										
327.00 > 307.00	4.800	4.803	-0.003	1.000	1826393	8.34	Target=1.33	112	127263	
327.00 > 81.00	4.800	4.803	-0.003	1.000	1294139		1.41(0.66-1.99)	112	66528	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.800	4.806	-0.006	0.854	771518	9.42		101	31623	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.839	4.843	-0.004	1.000	4080751	7.78	Target=12.64	97.3	49771	
313.00 > 119.00	4.839	4.843	-0.004	1.000	313739		13.01(6.32-18.96)	97.3	12335	
D 27 13C5 PFHxA										
318.00 > 273.00	4.839	4.846	-0.007	0.861	6763778	10.0		100	219534	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.860	4.863	-0.003	1.091	3725025	7.89	Target=3.66	105	242538	
349.00 > 99.00	4.860	4.863	-0.003	1.091	1009519		3.69(1.83-5.49)	105	65865	
29 PFO3OA										
311.00 > 85.00	4.899	4.903	-0.004	1.286	2401929	8.36		105	156404	
30 HFPO-DA										
329.00 > 285.00	4.971	4.978	-0.007	1.000	1485630	7.96		99.4	36881	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.971	4.983	-0.012	0.884	1512143	9.56		95.6	73958	
32 Hydro-EVE Acid										
427.00 > 283.00	5.191	5.201	-0.010	1.363	7454998	8.74		109	1658564	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
33 R-PSDCA										
397.00 > 217.00	5.202	5.209	-0.007	1.168	11052006	8.74		109	511125	
108 FBSEE										
386.00 > 166.00	5.213	5.220	-0.007	1.170	211030	7.76	Target=1.76	97.0	12982	
386.00 > 80.00	5.213	5.220	-0.007	1.170	126009		1.67(0.88-2.64)	97.0	7714	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.246	5.254	-0.008	1.000	5686014	8.50	Target=3.54	106	174116	
363.00 > 169.00	5.246	5.254	-0.008	1.000	1554021		3.66(1.77-5.31)	106	57113	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.246	5.254	-0.008	1.000	3471713	7.49	Target=3.57	103	7675	
399.00 > 99.00	5.246	5.254	-0.008	1.000	996999		3.48(1.78-5.35)	103	2529	
D 37 13C3 PFHxS										
402.00 > 80.00	5.246	5.254	-0.008	0.933	4520164	9.44		99.8	168230	
D 38 13C4 PFHpA										
367.00 > 322.00	5.246	5.255	-0.009	0.933	7298974	10.1		101	112845	
34 Hydro-PS Acid										
463.00 > 263.00	5.191	5.246	-0.055	1.165	7293314	8.50		106	155788	
39 DONA										
377.00 > 251.00	5.289	5.303	-0.014	1.008	6833968	8.09		107	321825	
40 PFECA G										
379.00 > 185.00	5.311	5.322	-0.011	1.394	8770758	8.77		110	558205	
41 5:3 FTCA										
341.00 > 237.00	5.332	5.338	-0.006	1.016	1059913	8.49	Target=3.04	106	50173	
341.00 > 217.00	5.321	5.338	-0.017	1.014	352121		3.01(1.52-4.55)	106	22184	
42 6:2 FTUCA										
357.00 > 293.00	5.351	5.359	-0.008	1.000	4363666	8.58		107	217045	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.351	5.361	-0.010	0.952	4103858	10.4		104	92296	
44 6:2 FTCA										
377.00 > 293.00	5.369	5.378	-0.009	1.000	534623	8.51		106	21684	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.369	5.379	-0.010	0.955	607351	9.74		97.4	31944	
46 PFO4DA										
377.00 > 85.00	5.429	5.435	-0.006	1.425	2851858	8.16		102	1084	
47 PS Acid										
443.00 > 147.00	5.471	5.479	-0.008	1.228	2798499	9.19		115	200616	
48 EVE Acid										
407.00 > 263.00	5.490	5.500	-0.010	1.441	7791912	8.88		111	404984	
49 PFECHS										
461.00 > 381.00	5.560	5.569	-0.009	1.060	5063177	8.11	Target=1.56	110	266472	
461.00 > 99.00	5.560	5.569	-0.009	1.060	3061079		1.65(0.78-2.34)	110	159496	
50 6:2 FTS										
427.00 > 407.00	5.603	5.613	-0.010	1.000	896252	8.02	Target=1.19	106	61410	
427.00 > 81.00	5.603	5.613	-0.010	1.000	760620		1.18(0.60-1.79)	106	39558	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.603	5.614	-0.011	0.997	291580	9.95		105	19925	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.612	5.618	-0.006	1.070	3753093	8.17	Target=3.73	107	197252	
449.00 > 99.00	5.603	5.618	-0.015	1.068	998961		3.76(1.87-5.60)	107	70232	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.621	5.630	-0.009	1.000	4221101	7.78	Target=2.20	97.2	235800	
413.00 > 169.00	5.621	5.630	-0.009	1.000	1951226		2.16(1.10-3.30)	97.2	787263	
D 54 13C8 PFOA										
421.00 > 376.00	5.621	5.631	-0.010	1.000	7270047	10.2		102	371992	
* 55 13C2 PFOA										
415.00 > 370.00	5.621	5.631	-0.010		2903962	5.00			149161	
106 FHxSA										
399.00 > 78.00	5.680	5.691	-0.011	1.083	263525	8.65		108	13275	
56 TAF										
443.00 > 85.00	5.874	5.879	-0.005	1.542	2747820	8.31		104	38151	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.948	5.954	-0.006	1.000	3698438	7.46	Target=4.38	101	1027171	
499.00 > 99.00	5.948	5.954	-0.006	1.000	863583		4.28(2.19-6.58)	101	1676	
* 59 13C4 PFOS										
503.00 > 80.00	5.948	5.955	-0.007		2557425	4.78			182183	
D 58 13C8 PFOS										
507.00 > 80.00	5.948	5.955	-0.007	1.000	4848413	9.36		97.9	48757	
61 Perfluorononanoic acid										
463.00 > 419.00	5.965	5.973	-0.008	1.000	3483879	8.18	Target=3.95	102	81608	
463.00 > 169.00	5.965	5.973	-0.008	1.000	886224		3.93(1.97-5.92)	102	46505	
D 60 13C9 PFNA										
472.00 > 427.00	5.965	5.975	-0.010	1.003	4891698	9.64		96.4	346284	
109 HFPO-TrA										
496.00 > 185.00	6.055	6.068	-0.013	1.218	95669	41.8		104	6547	
62 7:3 FTCA										
441.00 > 337.00	6.064	6.077	-0.013	1.129	1284245	8.71		109	42664	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.074	6.085	-0.011	0.968	4295057	11.2		112	214222	
63 8:2 FTUCA										
457.00 > 393.00	6.074	6.084	-0.010	1.000	3350429	8.27		103	225307	
65 8:2 FTCA										
477.00 > 393.00	6.093	6.099	-0.006	1.000	370156	8.34		104	24926	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.093	6.102	-0.009	0.972	444720	10.3		103	29985	
67 9ClFOS										
531.00 > 351.00	6.123	6.130	-0.007	1.030	5448426	7.64		103	59846	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.246	6.254	-0.008	1.050	4027786	8.20	Target=4.33	107	298609	
549.00 > 99.00	6.246	6.254	-0.008	1.050	929502		4.33(2.16-6.49)	107	69543	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.272	6.279	-0.007	1.000	4293227	8.24	Target=7.98	103	114766	
513.00 > 169.00	6.264	6.279	-0.015	0.999	553904		7.75(3.99-11.97)	103	17125	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 71 13C6 PFDA										
519.00 > 474.00	6.272	6.282	-0.010	1.000	6194779	10.3		103	336281	
72 8:2 FTS										
527.00 > 507.00	6.272	6.282	-0.010	0.999	769389	8.53	Target=1.01	111	55519	
527.00 > 81.00	6.272	6.282	-0.010	0.999	758229		1.01(0.50-1.51)	111	32604	
* 70 13C2 PFDA										
515.00 > 470.00	6.272	6.282	-0.010		3150714	5.00			225118	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.281	6.285	-0.004	1.001	151892	9.74		102	10862	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.363	6.371	-0.008	1.000	6560810	8.50		106	257797	
D 74 13C8 FOSA										
506.00 > 78.00	6.363	6.375	-0.012	1.015	7782530	10.0		100	303572	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.415	6.428	-0.013	1.023	1610164	9.52		95.2	21931	
76 NMeFOSAA										
570.00 > 419.00	6.415	6.430	-0.015	1.000	1303636	9.18	Target=1.69	115	2194	
570.00 > 483.00	6.415	6.430	-0.015	1.000	733814		1.78(0.85-2.54)	115	1508	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.516	6.522	-0.006	1.096	4154888	8.58	Target=4.28	111	199146	
599.00 > 99.00	6.506	6.522	-0.016	1.094	976238		4.26(2.14-6.42)	111	62150	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.538	6.550	-0.012	0.998	4136948	8.34	Target=7.28	104	124142	
563.00 > 169.00	6.538	6.550	-0.012	0.998	570261		7.25(3.64-10.92)	104	35136	
D 80 13C7 PFUnA										
570.00 > 525.00	6.550	6.557	-0.007	1.044	6658493	10.5		105	301590	
82 NEtFOSAA										
584.00 > 419.00	6.562	6.570	-0.008	1.000	972244	8.05	Target=1.63	101	313055	
584.00 > 526.00	6.550	6.570	-0.020	0.998	614569		1.58(0.82-2.45)	101	1224	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.562	6.569	-0.007	1.046	1258594	10.4		104	45535	
83 10:2 FTUCA										
557.00 > 493.00	6.643	6.654	-0.011	0.998	2822294	7.75		96.9	128793	
84 11ClFOS										
631.00 > 451.00	6.654	6.660	-0.006	1.119	4063195	7.72		104	152227	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.654	6.660	-0.006	1.061	3788851	11.2		112	116483	
86 10:2 FTCA										
577.00 > 493.00	6.665	6.670	-0.005	1.000	264241	8.01		100	15951	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.665	6.670	-0.005	1.063	339359	10.8		108	21319	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.779	6.787	-0.008	0.998	3805243	8.54	Target=4.76	107	99084	
613.00 > 169.00	6.779	6.787	-0.008	0.998	836593		4.55(2.38-7.14)	107	38134	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.791	6.796	-0.005	1.083	4886429	10.1		101	177212	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
90 10:2 FTS										
627.00 > 607.00	6.802	6.810	-0.008	1.083	578770	8.64	Target=0.75	112	35798	
627.00 > 81.00	6.802	6.810	-0.008	1.083	773532		0.75(0.38-1.13)	112	47455	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.802	6.813	-0.011	1.085	1277092	10.1		101	13874	
92 N-MeFOSE-M										
616.00 > 59.00	6.813	6.820	-0.007	1.002	1090039	8.41		105	18581	
94 NMeFOSA										
512.00 > 169.00	6.823	6.829	-0.006	1.000	681517	8.72		109	21530	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.823	6.829	-0.006	1.088	801384	9.97		99.7	17149	
95 PFDoS										
699.00 > 80.00	6.962	6.967	-0.005	1.170	3566197	8.25		107	246314	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.962	6.973	-0.011	1.110	1406294	9.83		98.3	19262	
97 N-EtFOSE-M										
630.00 > 59.00	6.971	6.981	-0.010	1.001	1265789	8.94		112	64707	
100 N-EtFOSA-M										
526.00 > 169.00	6.990	6.996	-0.006	1.000	678666	8.67		108	19741	
99 Perfluorotridecanoic acid										
663.00 > 619.00	6.990	6.996	-0.006	1.029	3207366	8.29	Target=4.11	104	73813	
663.00 > 169.00	6.990	6.996	-0.006	1.029	790255		4.06(2.06-6.17)	104	54326	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.990	6.995	-0.005	1.114	748830	10.0		100	19159	
105 HFPOTeA										
661.00 > 185.00	7.051	7.058	-0.007	1.418	101431	41.4	Target=4.76	104	6705	
661.00 > 119.00	7.051	7.058	-0.007	1.418	18494		5.48(2.38-7.14)	104	1260	
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.169	7.181	-0.012	0.999	2859763	8.33	Target=4.34	104	84778	
713.00 > 169.00	7.169	7.181	-0.012	0.999	639860		4.47(2.17-6.50)	104	33262	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.178	7.184	-0.006	1.144	3889927	9.97		99.7	133140	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.470	7.483	-0.013	1.041	1887601	8.33	Target=5.44	104	47514	
813.00 > 169.00	7.470	7.483	-0.013	1.041	352256		5.36(2.72-8.16)	104	17955	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.708	7.717	-0.009	1.074	1373976	8.44	Target=6.37	105	47595	
913.00 > 169.00	7.708	7.717	-0.009	1.074	213356		6.44(3.18-9.55)	105	14740	

QC Flag Legend

Processing Flags

Reagents:

PFC_STD_XMOD4_00014 Amount Added: 200.00 Units: uL

Report Date: 01-Mar-2022 23:53:32 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-04.d

Injection Date: 01-Mar-2022 21:48:35 Instrument ID: 30728

Lims ID: IC CAL 4

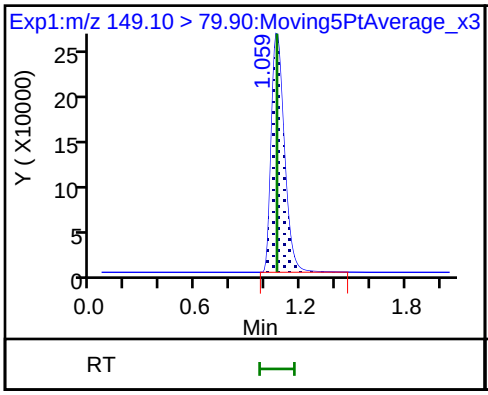
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20005 Worklist Smp#: 4

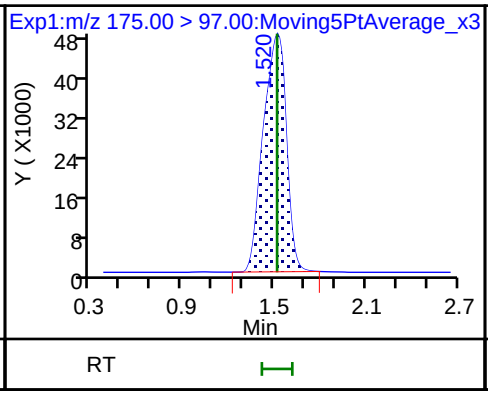
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

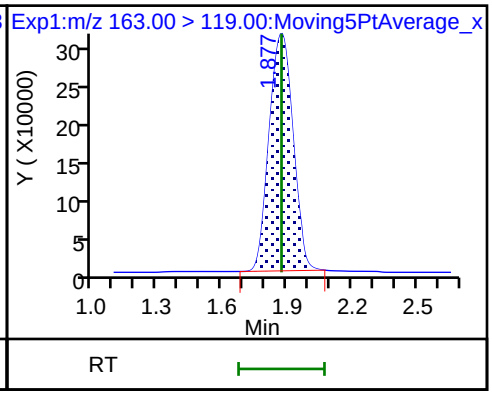
107 Sodium trifluoromethanesulfonate



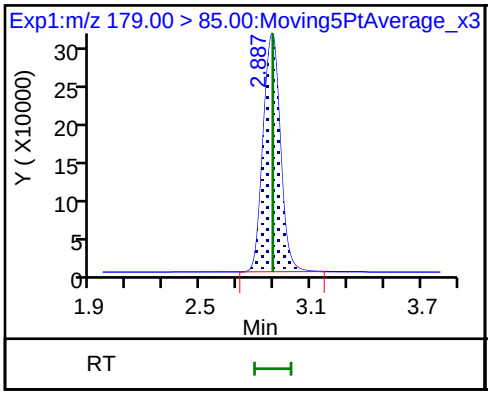
1 MTP



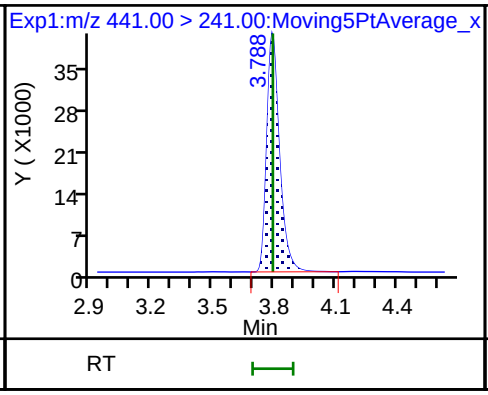
2 PPF Acid



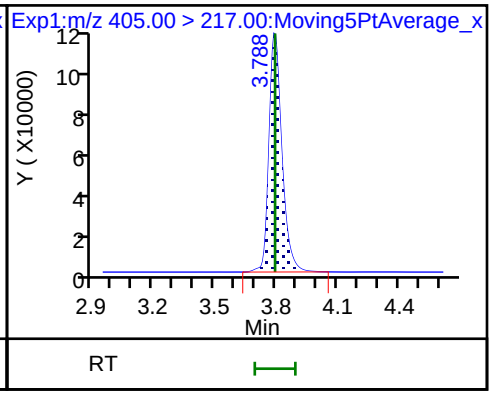
3 PFMOAA



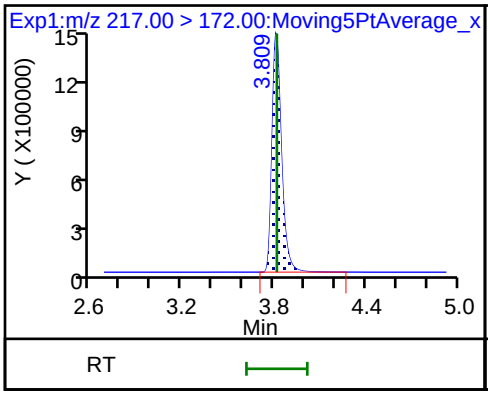
4 R-PSDA



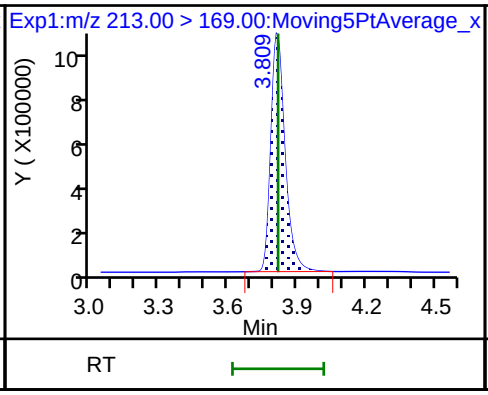
5 R-EVE



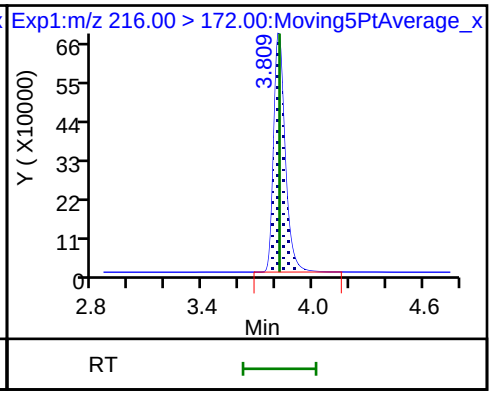
D 6 13C4 PFBA



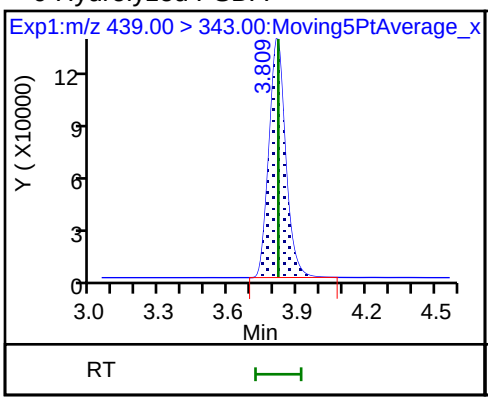
7 Perfluorobutanoic acid



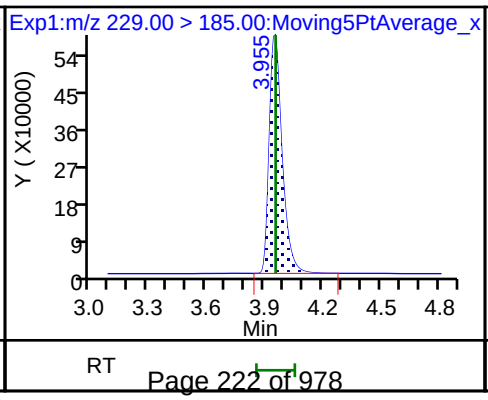
* 8 13C3-PFBA



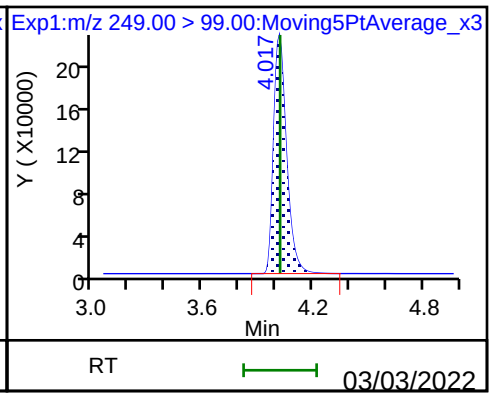
9 Hydrolyzed PSDA



10 PMPA



11 PFPrS



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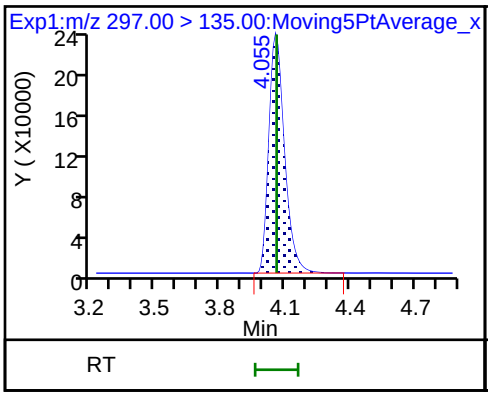
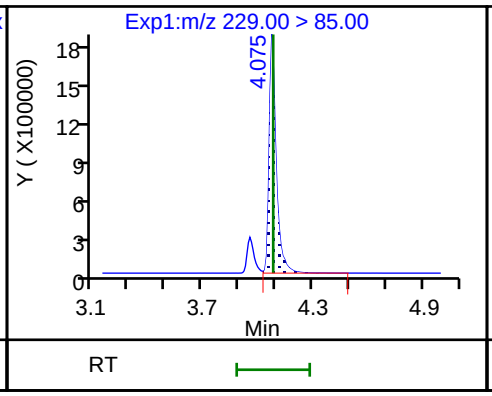
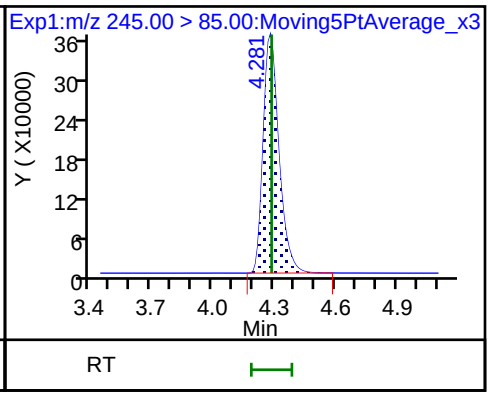


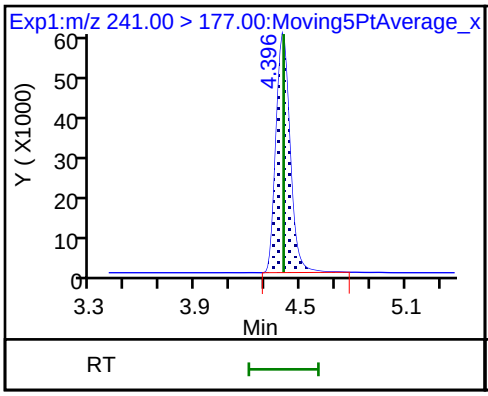
13 PFECA F



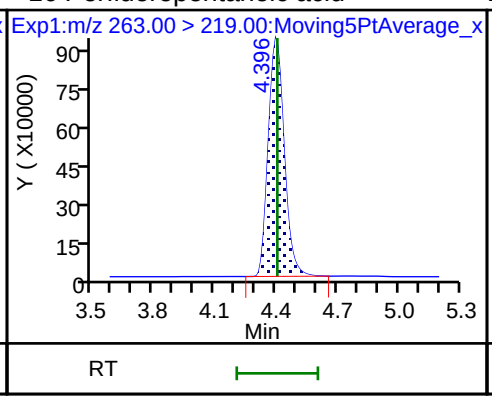
14 PFO2HxA



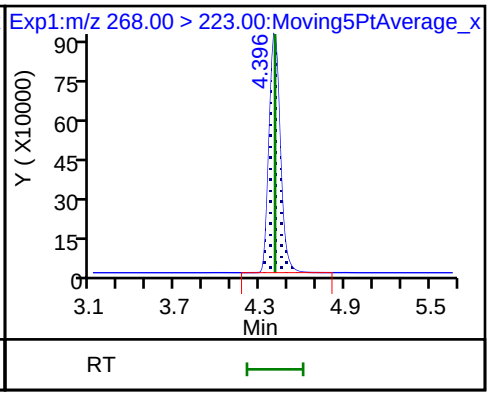
15 3:3 FTCA



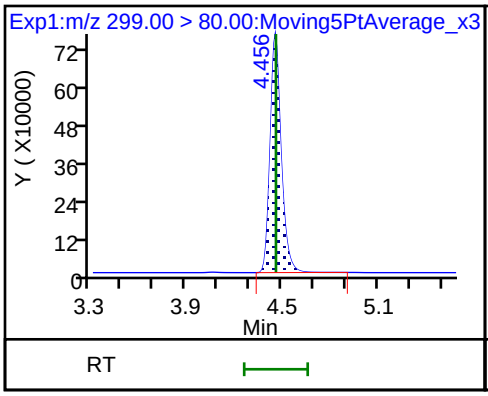
16 Perfluoropentanoic acid



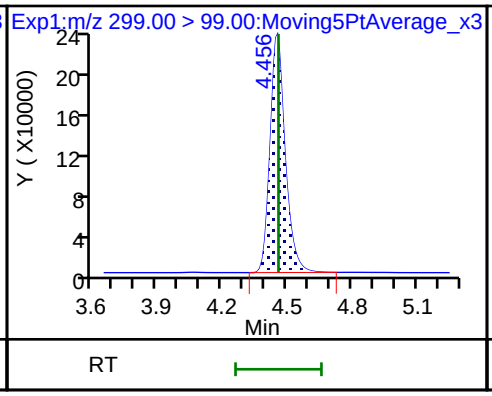
D 17 13C5 PFPeA



18 Perfluorobutanesulfonic acid



18 Perfluorobutanesulfonic acid



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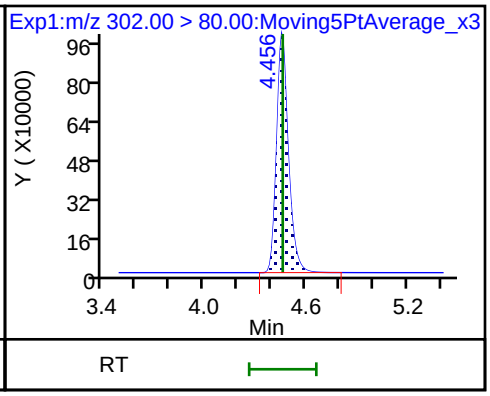
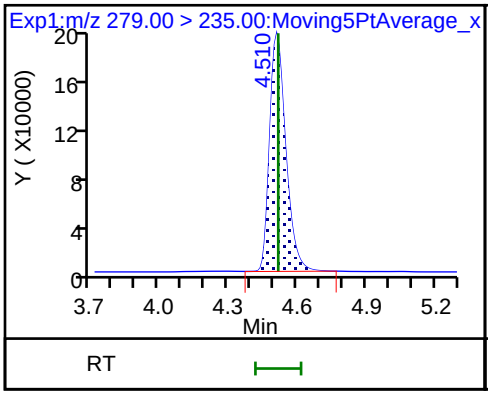
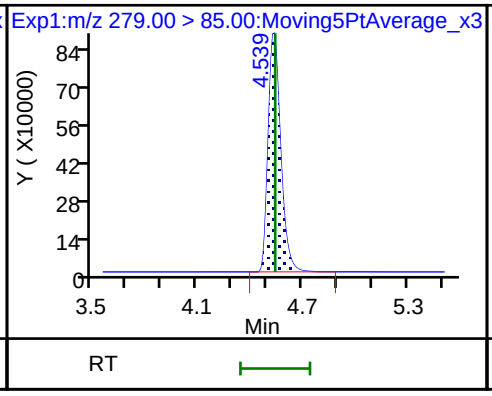


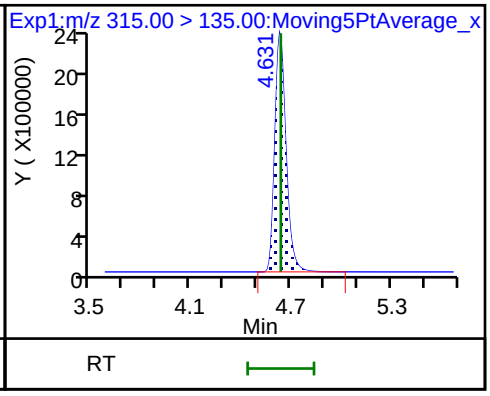
20 PEPA



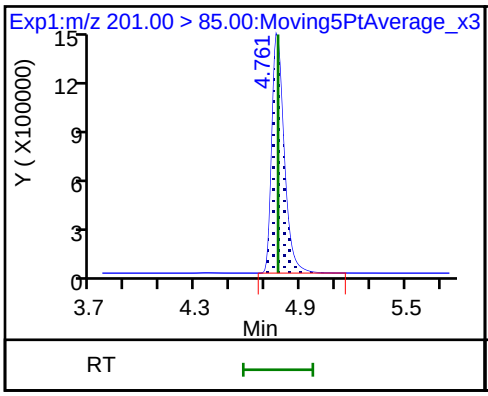
21 PFECA A



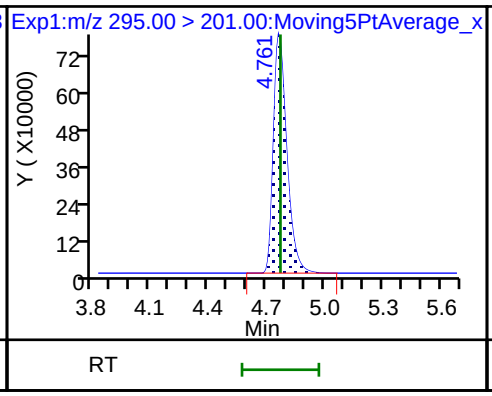
22 PES



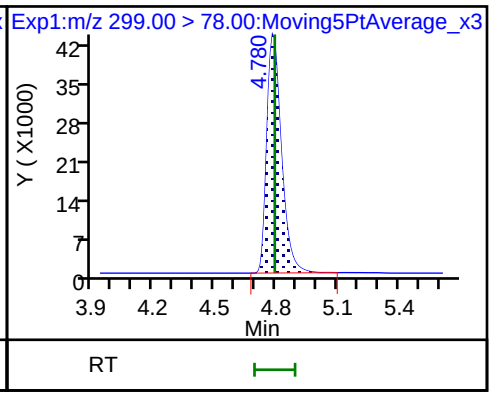
23 PFECA B



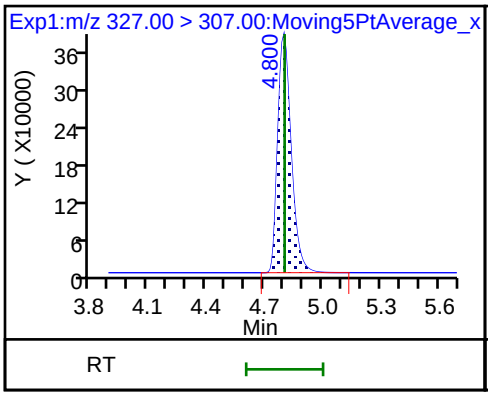
23 PFECA B



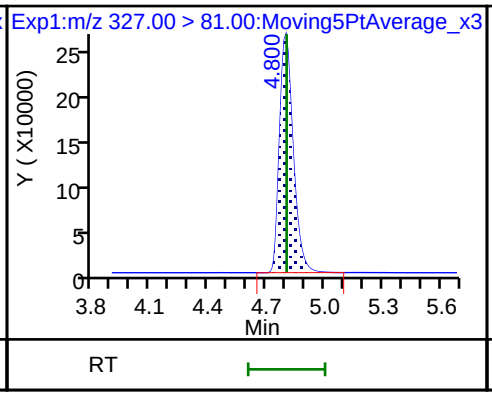
110 FBSA



24 4:2 FTS



24 4:2 FTS



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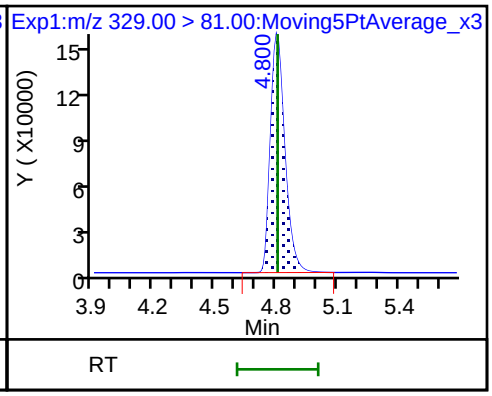
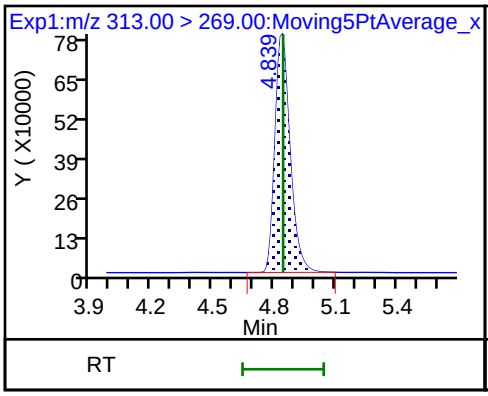
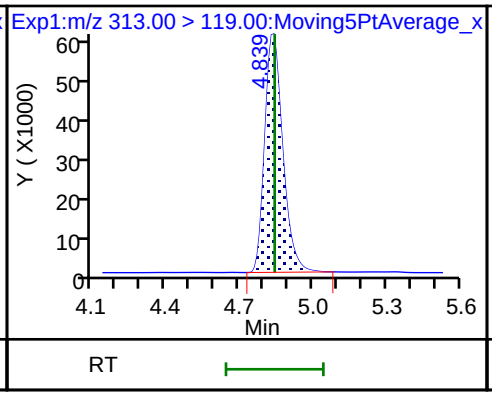


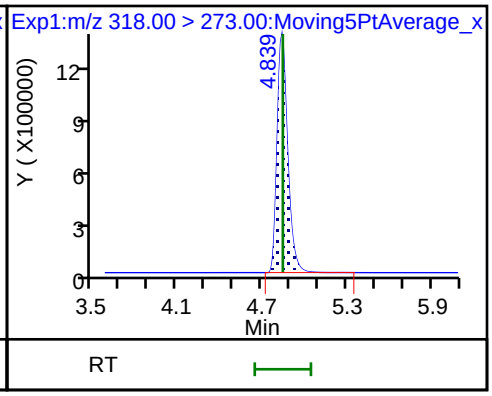
26 Perfluorohexanoic acid



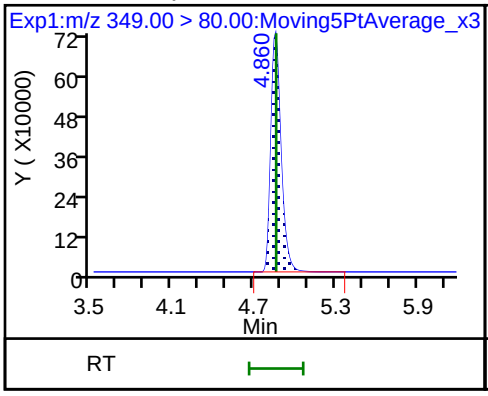
26 Perfluorohexanoic acid



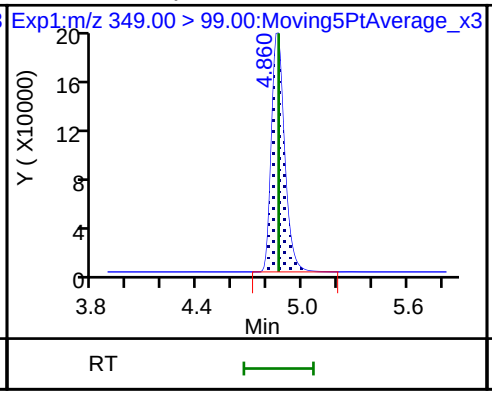
D 27 13C5 PFHxA



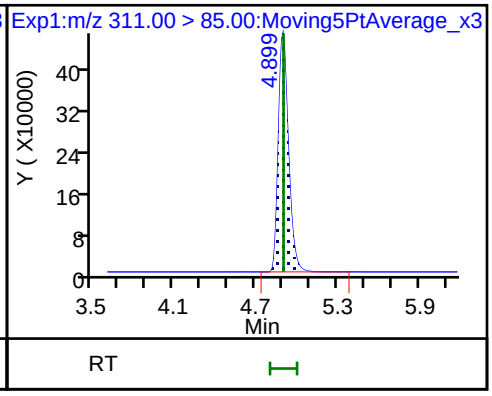
28 Perfluoropentanesulfonic acid



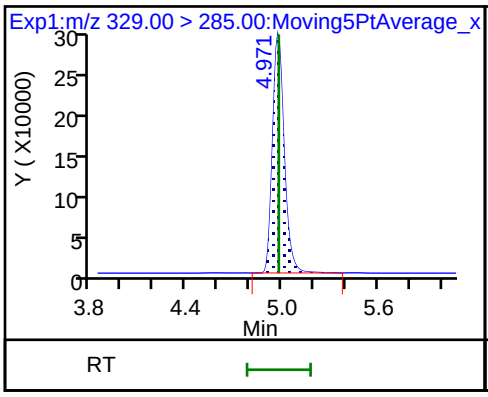
28 Perfluoropentanesulfonic acid



29 PFO3OA



30 HFPO-DA



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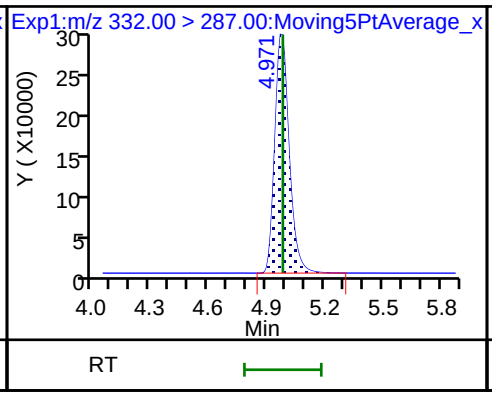
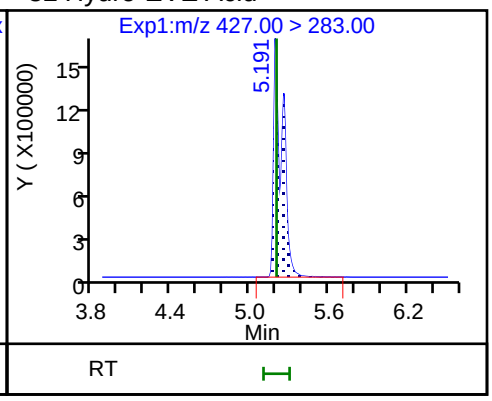
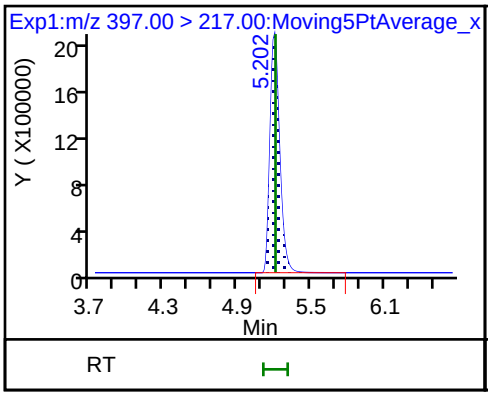


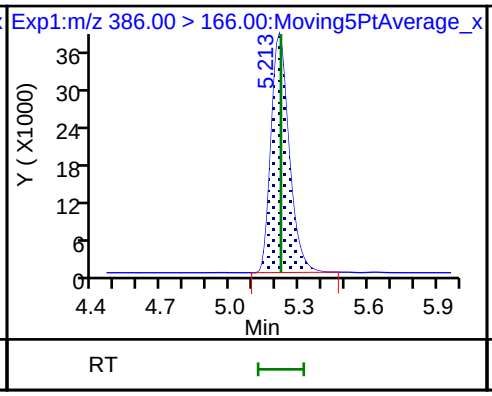
32 Hydro-EVE Acid



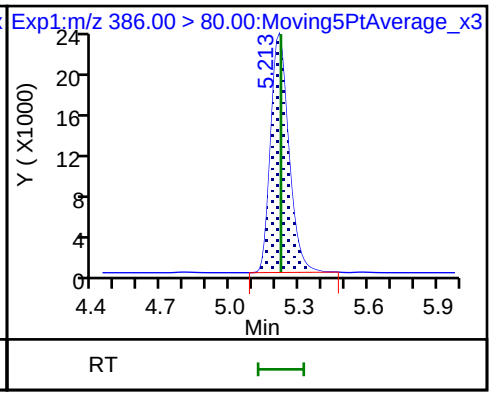
33 R-PSDCA



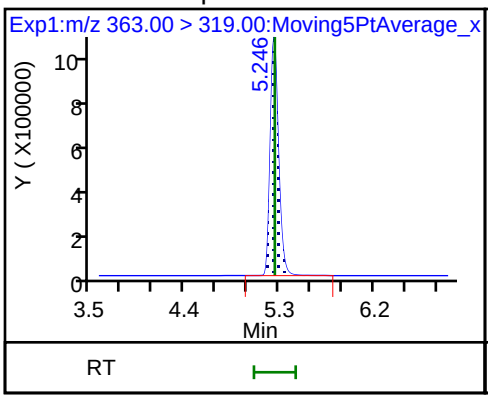
108 FBSEE



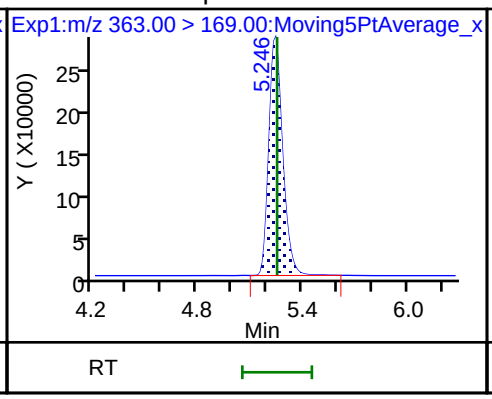
108 FBSEE



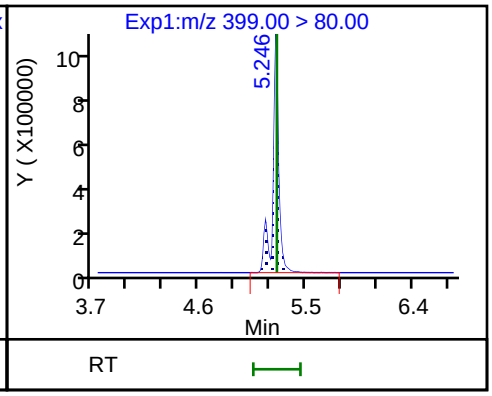
36 Perfluoroheptanoic acid



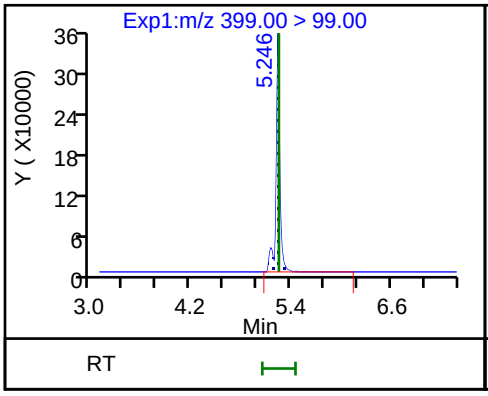
36 Perfluoroheptanoic acid



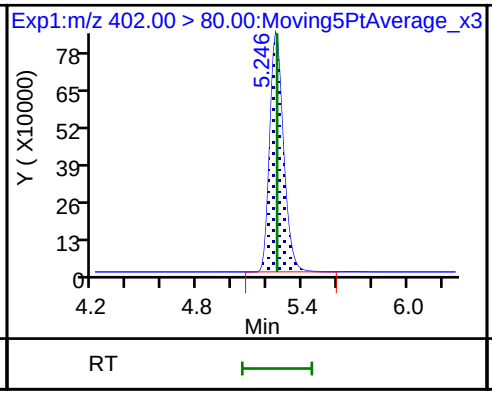
35 Perfluorohexanesulfonic acid



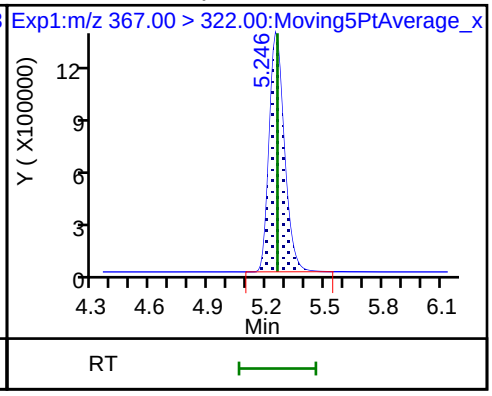
35 Perfluorohexanesulfonic acid



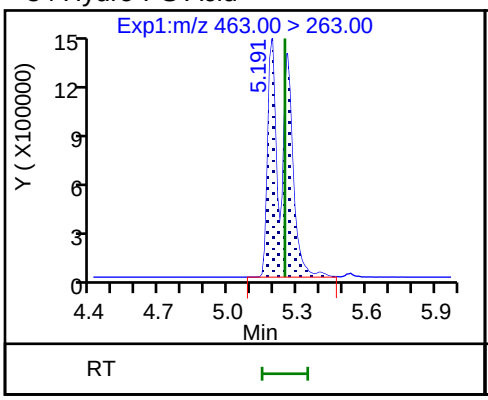
D 37 13C3 PFHxS



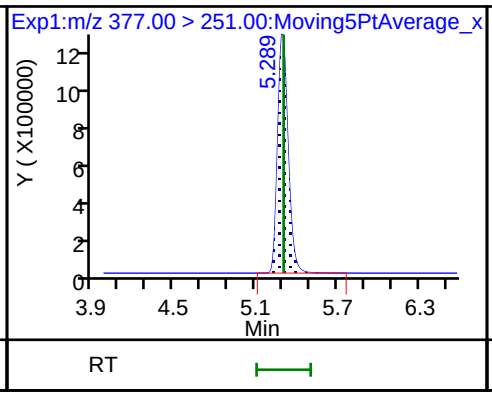
D 38 13C4 PFHpA



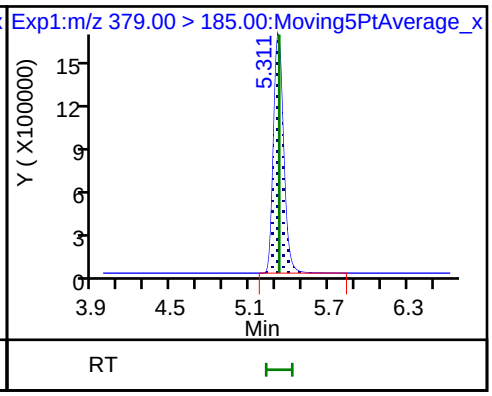
34 Hydro-PS Acid



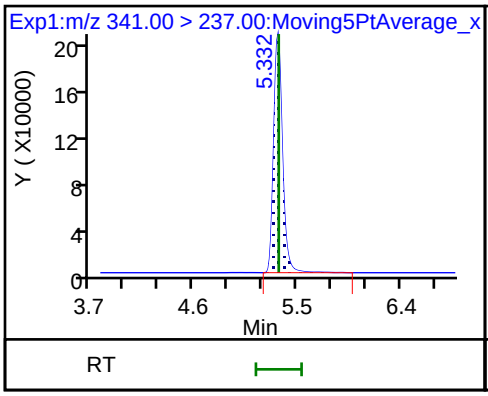
39 DONA



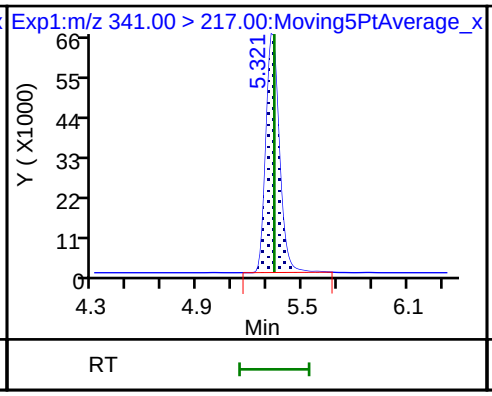
40 PFECA G



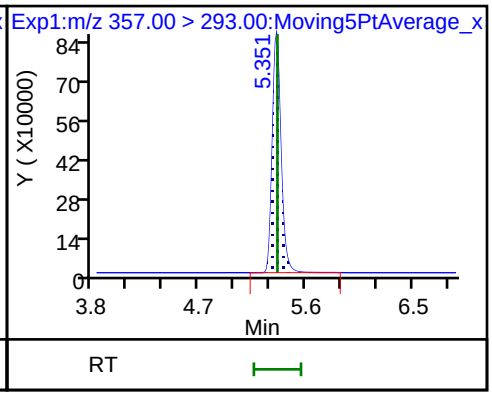
41 5:3 FTCA



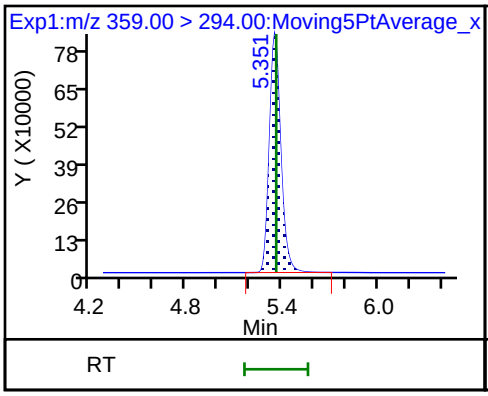
41 5:3 FTCA



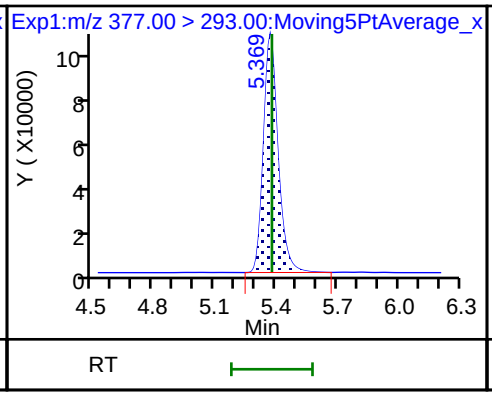
42 6:2 FTUCA



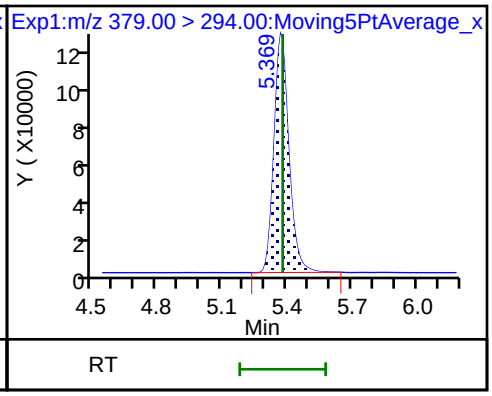
D 43 13C-6:2 FTUCA



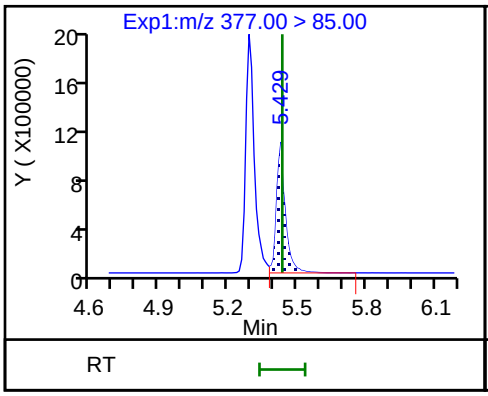
44 6:2 FTCA



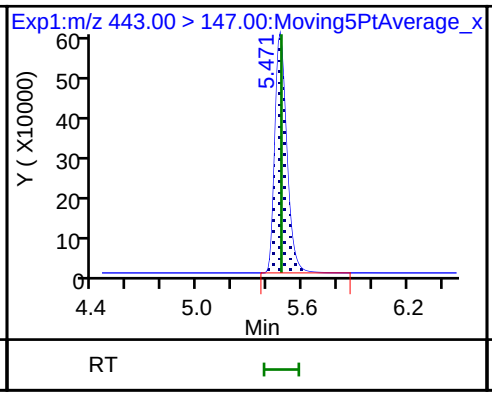
D 45 13C-6:2 FTCA



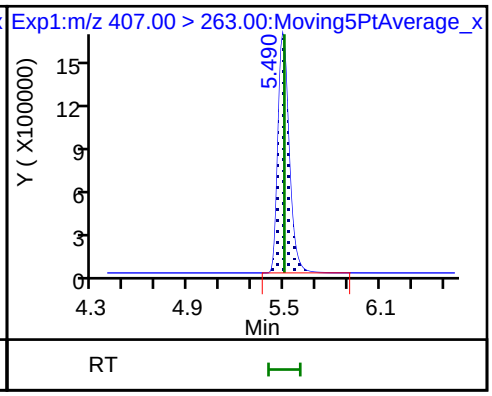
46 PFO4DA



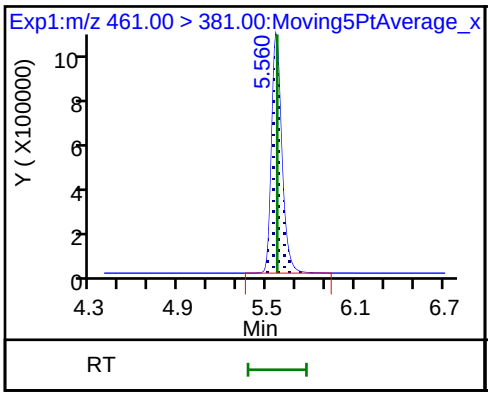
47 PS Acid



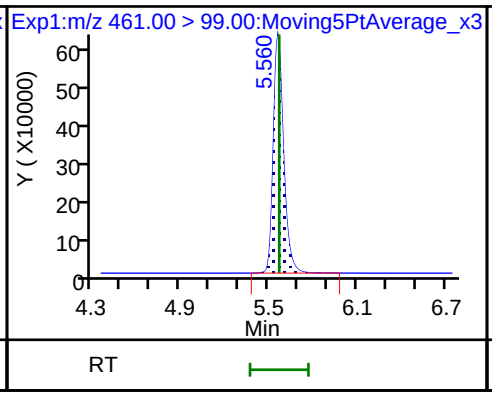
48 EVE Acid



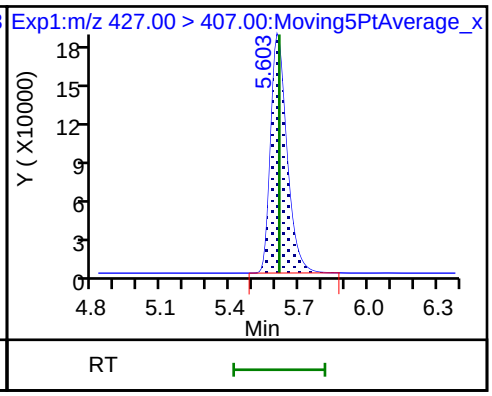
49 PFECHS



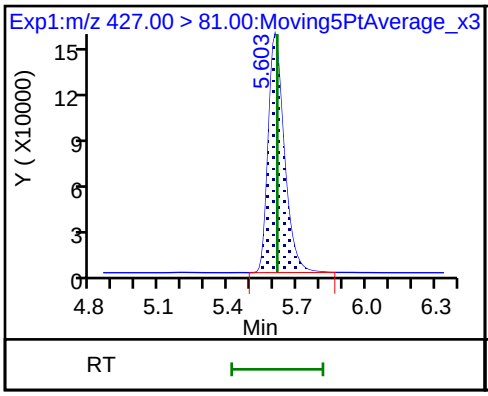
49 PFECHS



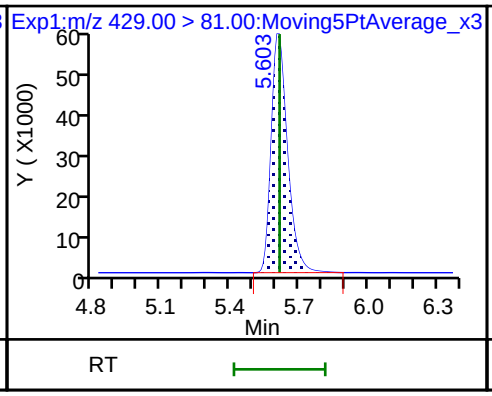
50 6:2 FTS



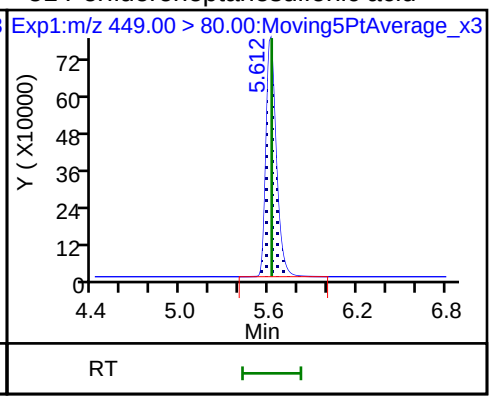
50 6:2 FTS



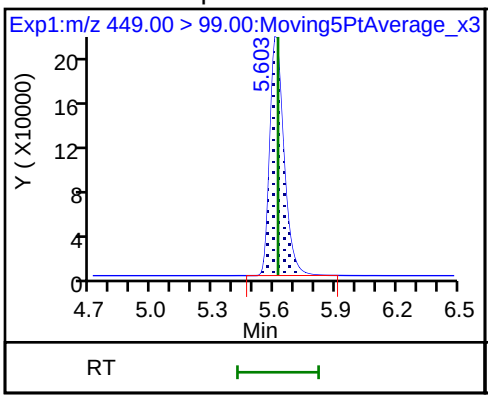
D 52 M2-6:2 FTS



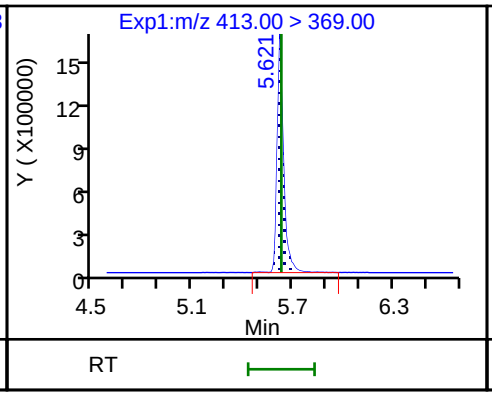
51 Perfluoroheptanesulfonic acid



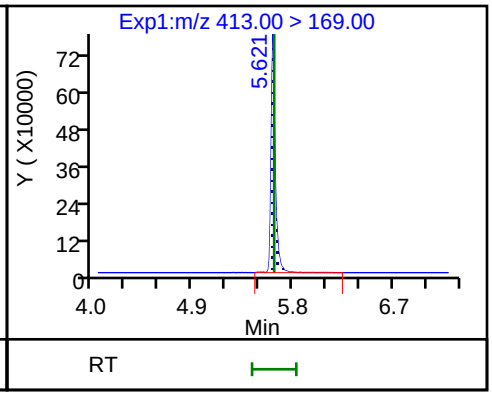
51 Perfluoroheptanesulfonic acid



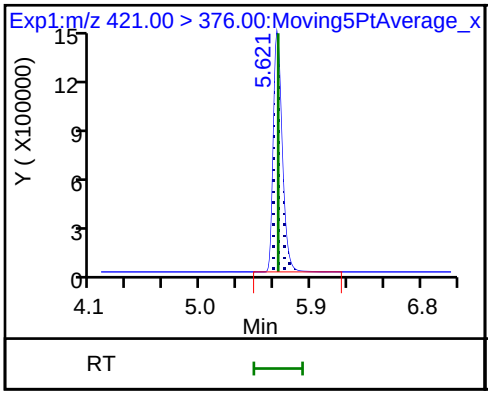
53 Perfluorooctanoic acid



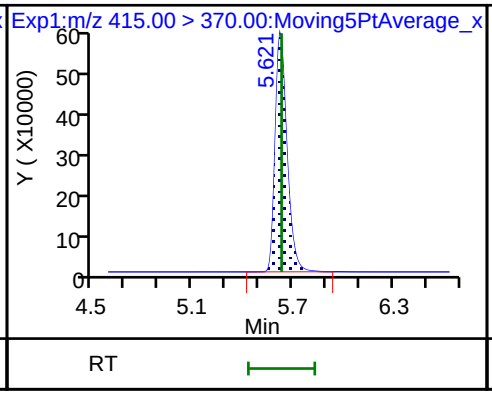
53 Perfluorooctanoic acid



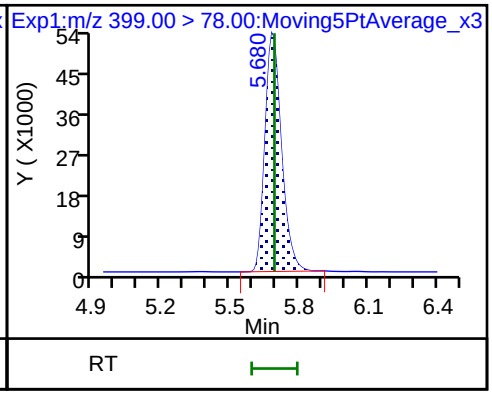
D 54 13C8 PFOA



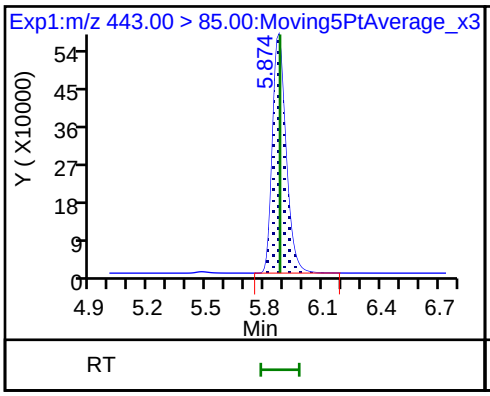
* 55 13C2 PFOA



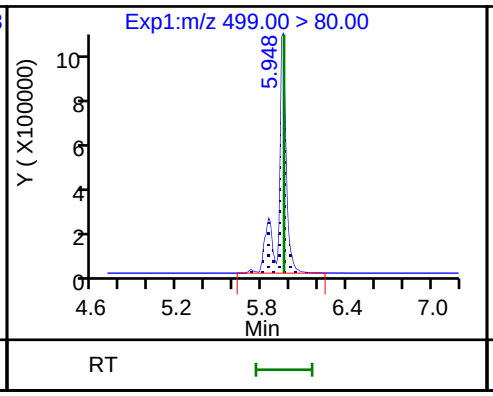
106 FHxSA



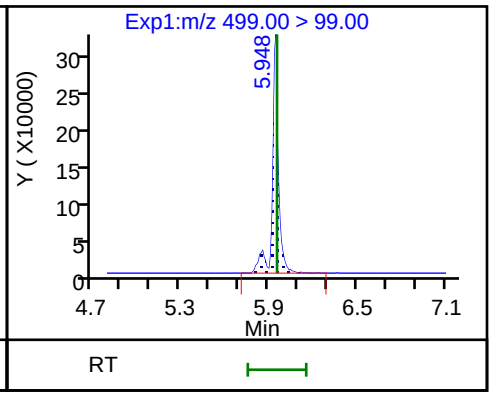
56 TAF



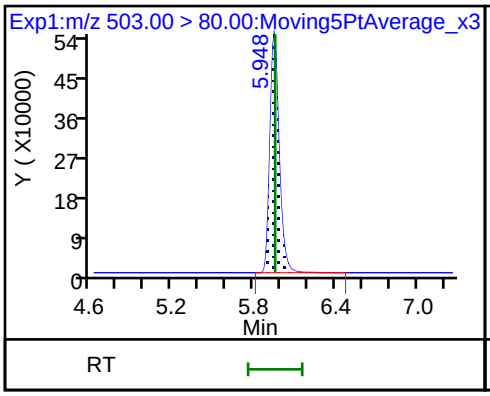
57 Perfluorooctanesulfonic acid



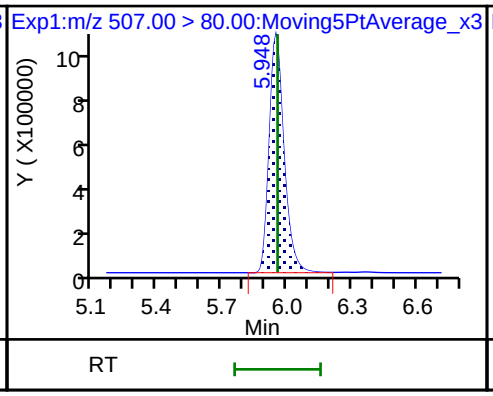
57 Perfluorooctanesulfonic acid



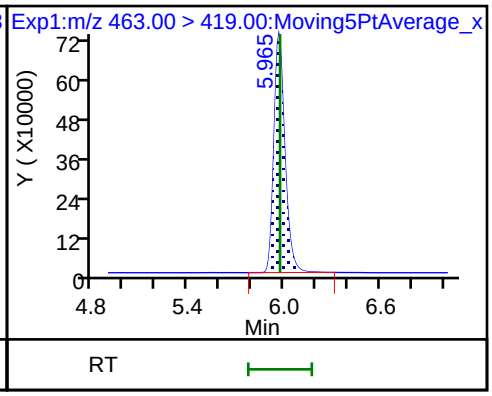
* 59 13C4 PFOS



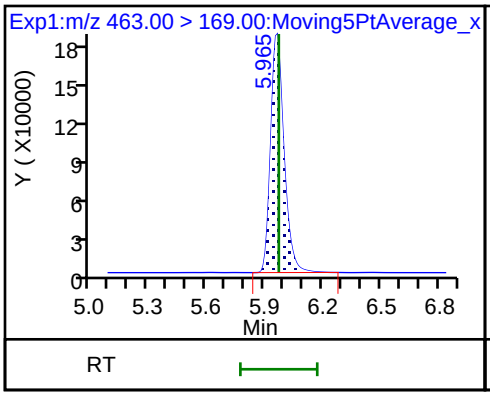
D 58 13C8 PFOS



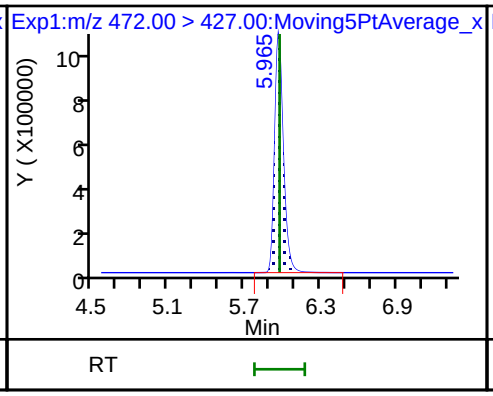
61 Perfluorononanoic acid



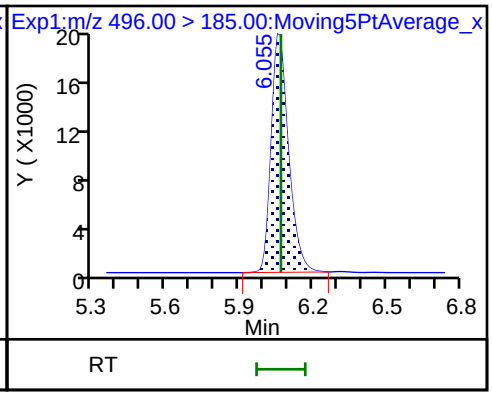
61 Perfluorononanoic acid



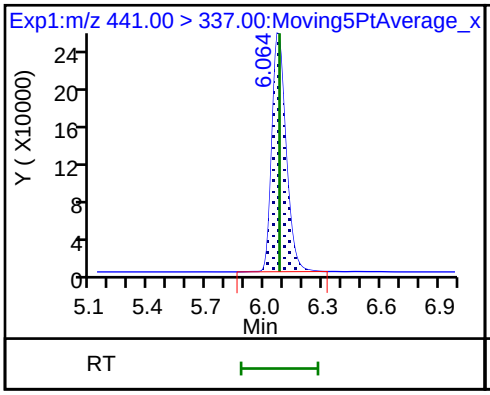
D 60 13C9 PFNA



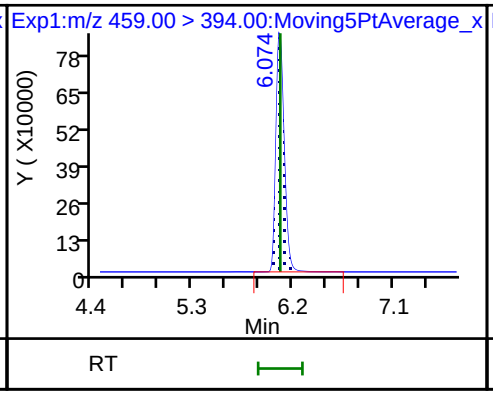
109 HFPO-TrA



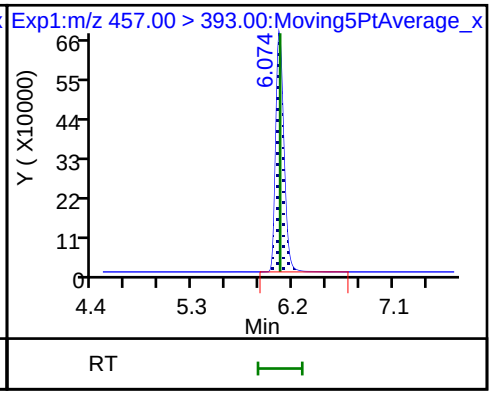
62 7:3 FTCA



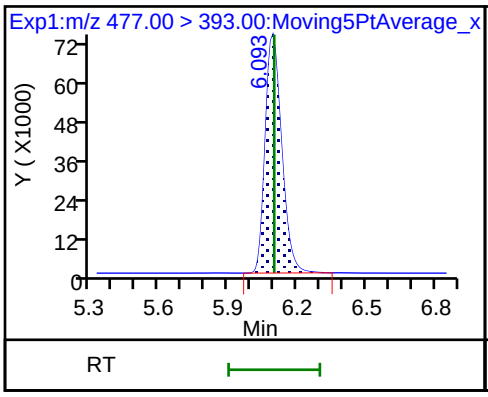
D 64 13C-8:2 FTUCA



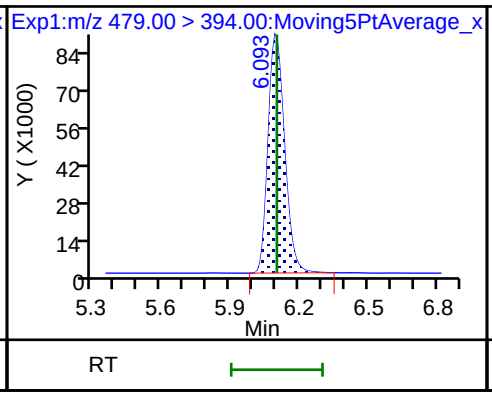
63 8:2 FTUCA



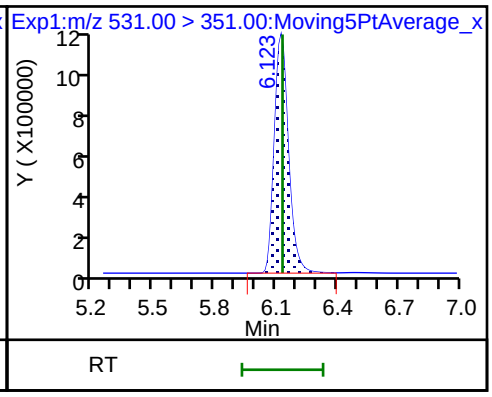
65 8:2 FTCA



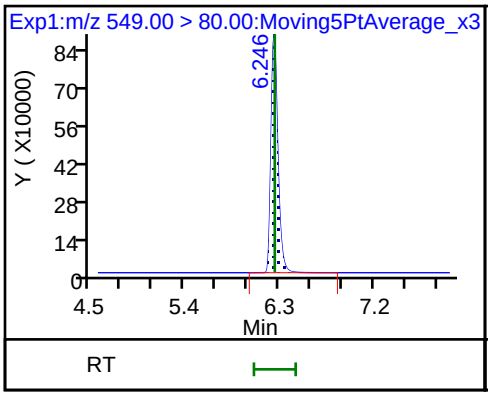
D 66 13C-8:2 FTCA



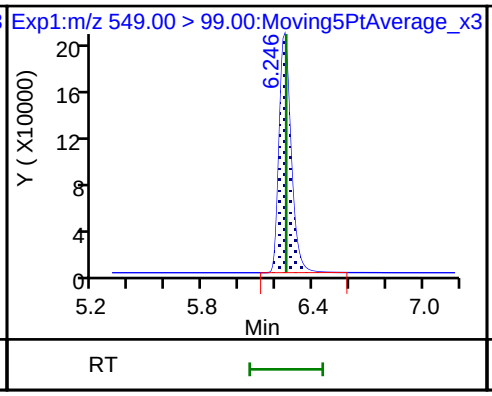
67 9ClFOS



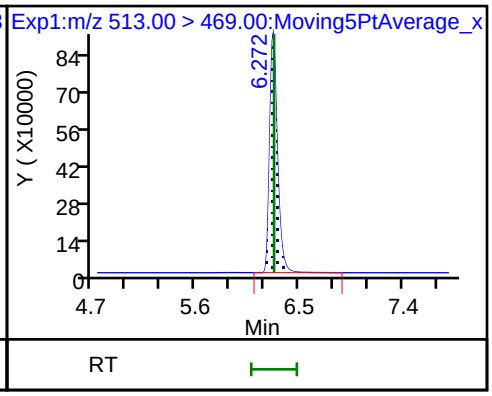
68 Perfluorononanesulfonic acid



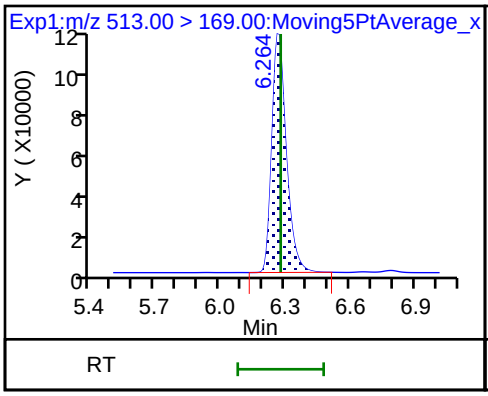
68 Perfluorononanesulfonic acid



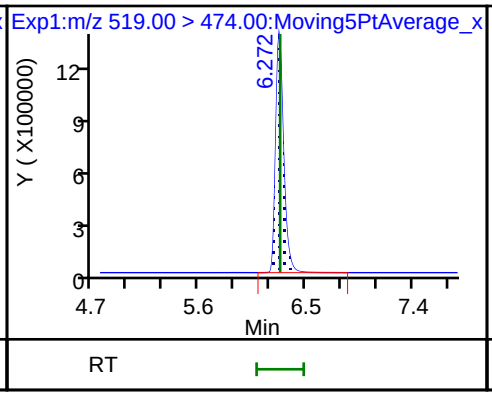
69 Perfluorodecanoic acid



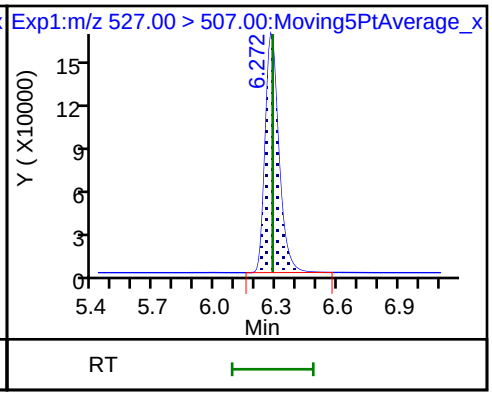
69 Perfluorodecanoic acid



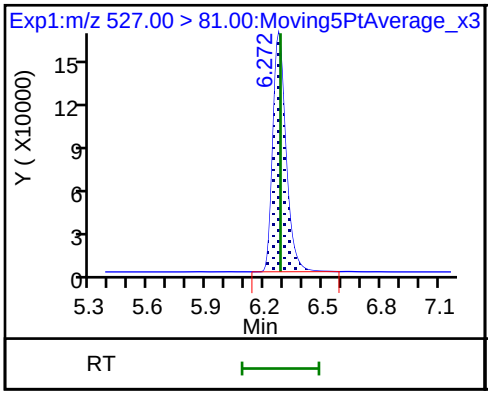
D 71 13C6 PFDA



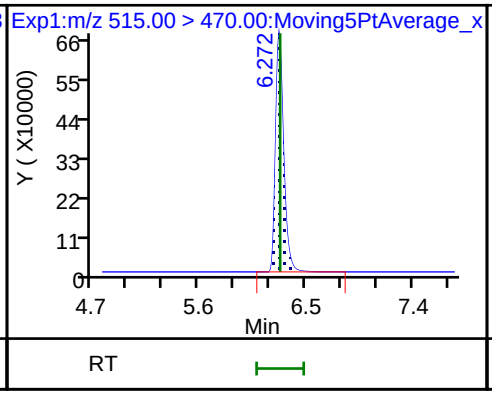
72 8:2 FTS



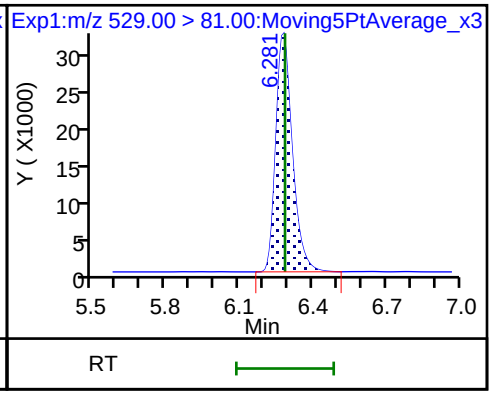
72 8:2 FTS



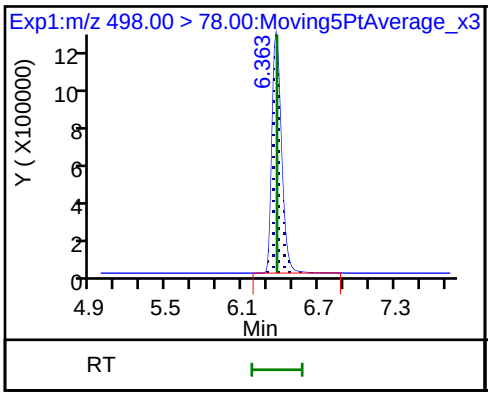
* 70 13C2 PFDA



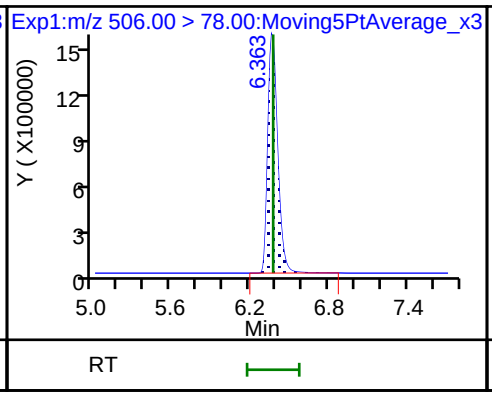
D 73 M2-8:2 FTS



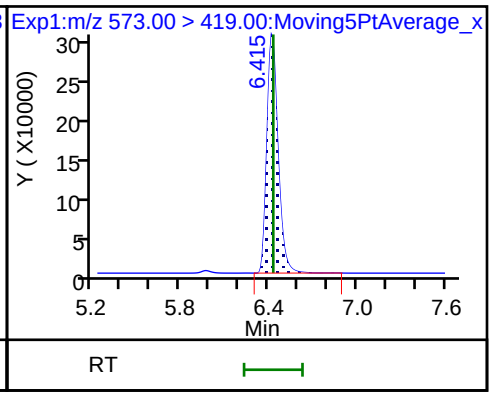
75 Perfluorooctanesulfonamide



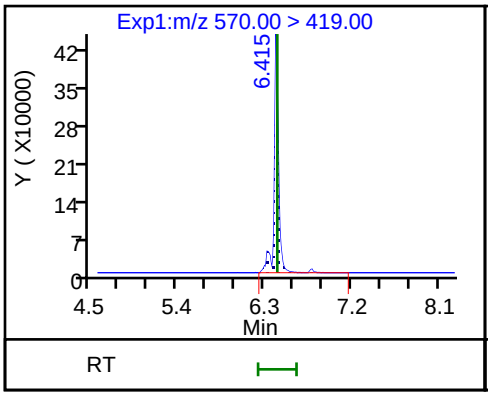
D 74 13C8 FOSA



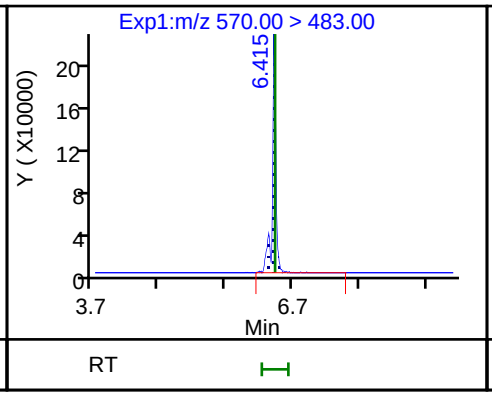
D 77 d3-NMeFOSAA



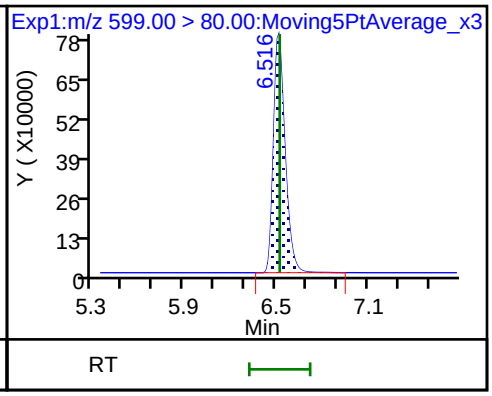
76 NMeFOSAA



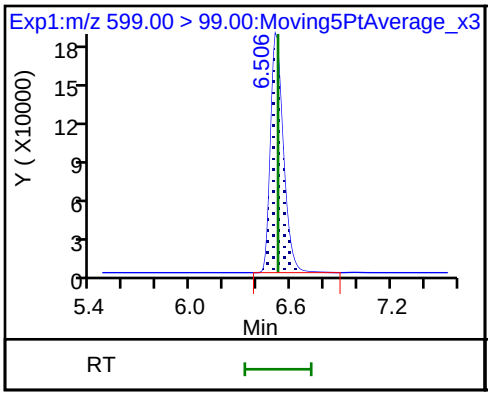
76 NMeFOSAA



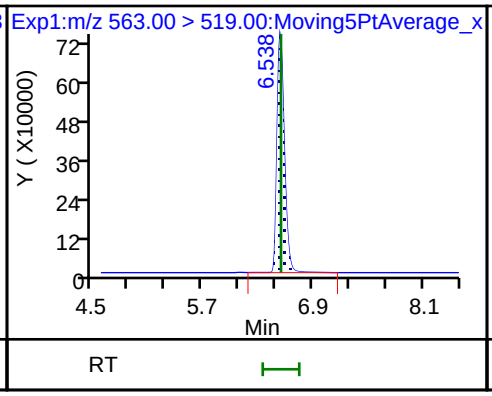
78 Perfluorodecanesulfonic acid



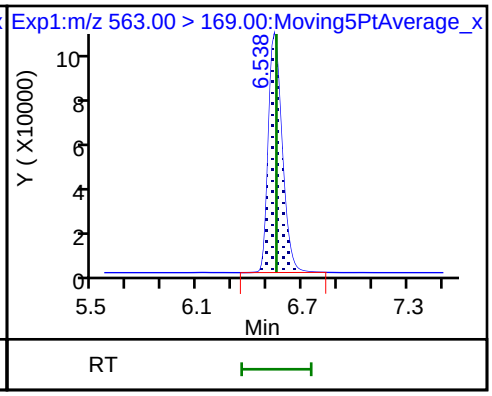
78 Perfluorodecanesulfonic acid



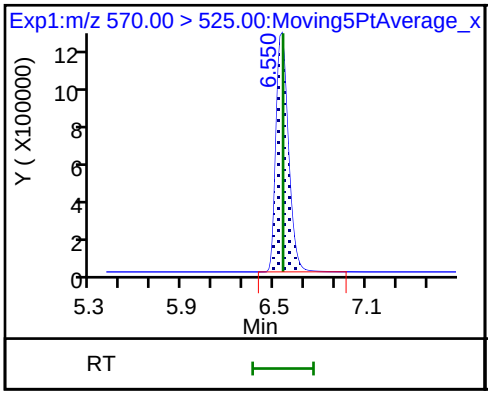
79 Perfluoroundecanoic acid



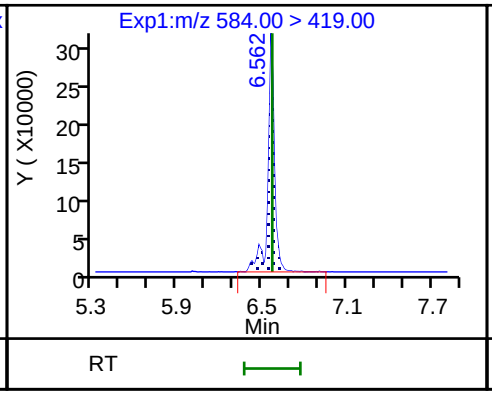
79 Perfluoroundecanoic acid



D 80 13C7 PFUnA



82 NEtFOSAA



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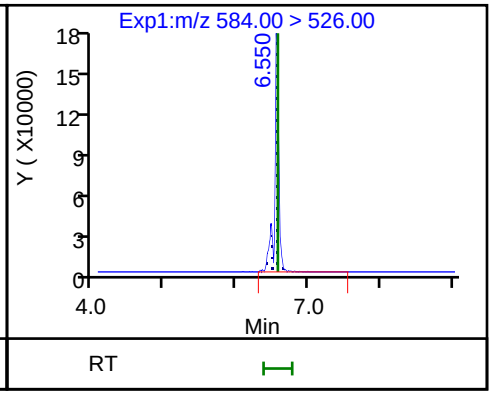
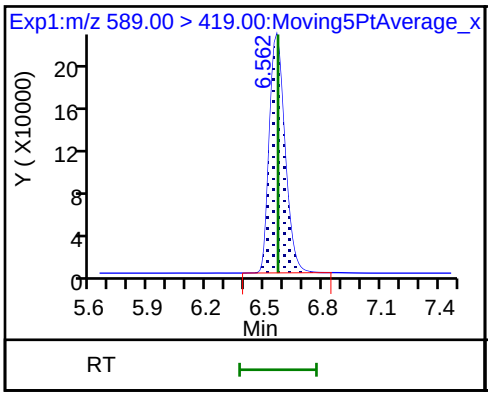
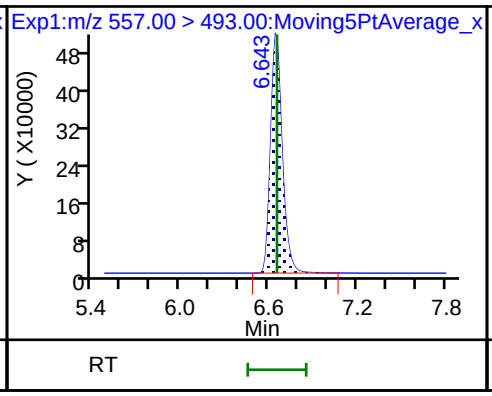


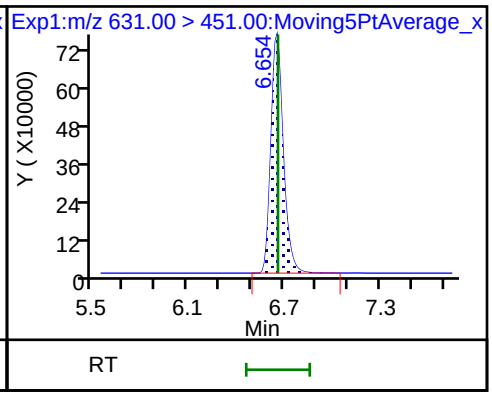
D 81 d5-NEtFOSAA



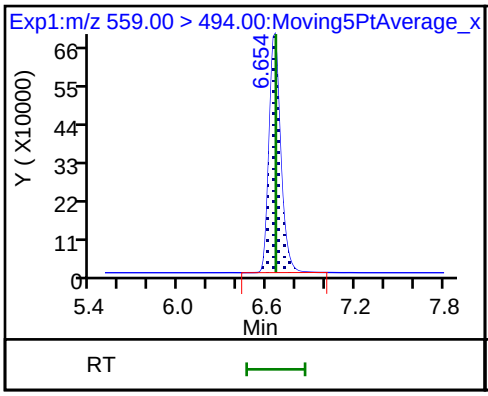
83 10:2 FTUCA



84 11ClFOS



D 85 13C-10:2 FTUCA



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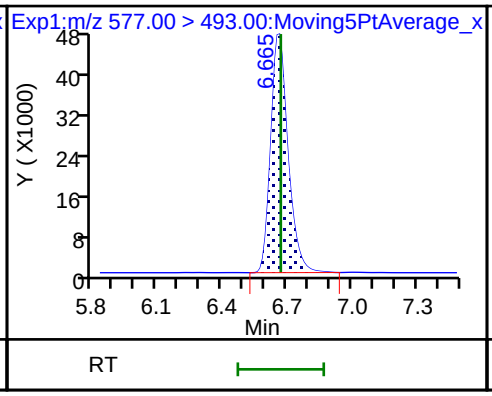
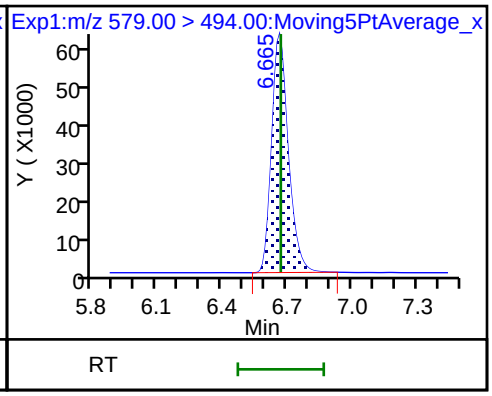
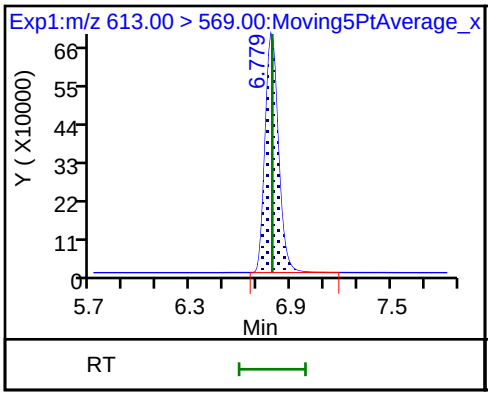


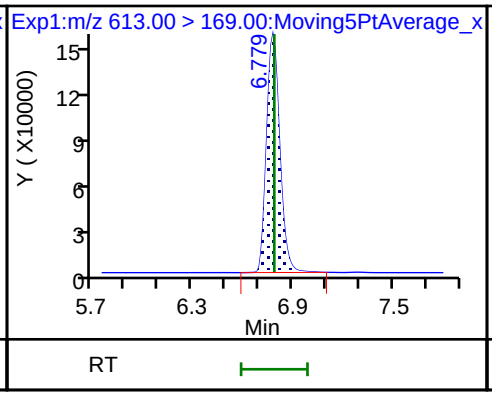
D 87 13C-10:2 FTCA



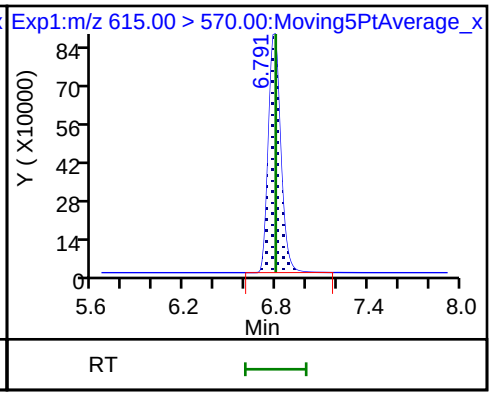
88 Perfluorododecanoic acid



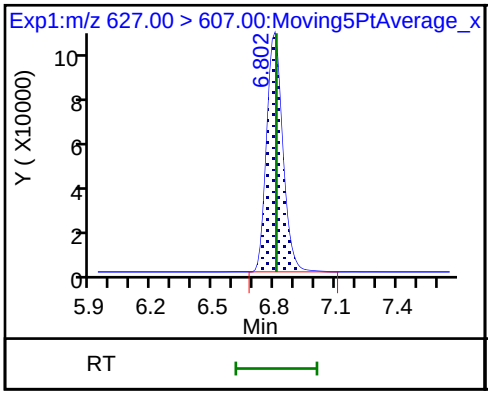
88 Perfluorododecanoic acid



D 89 13C2-PFDoDA



90 10:2 FTS



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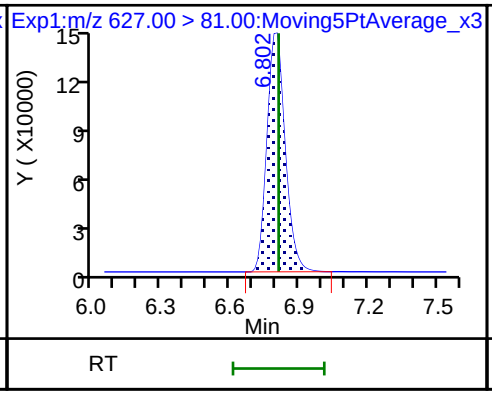
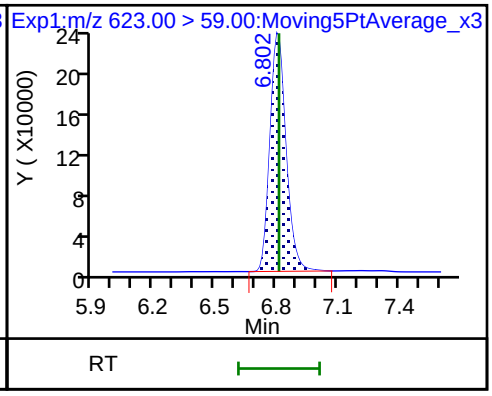
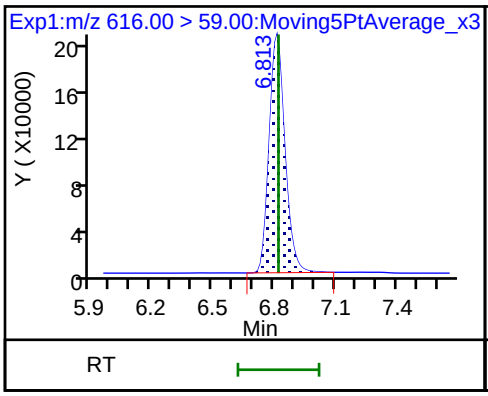


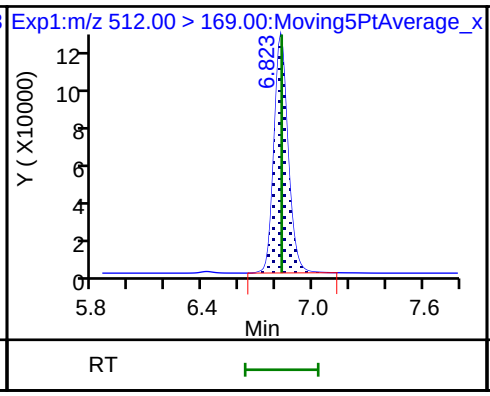
D 91 d7-N-MeFOSE-M



92 N-MeFOSE-M



94 NMeFOSA



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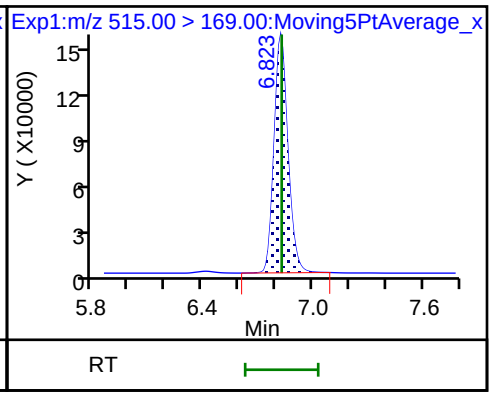
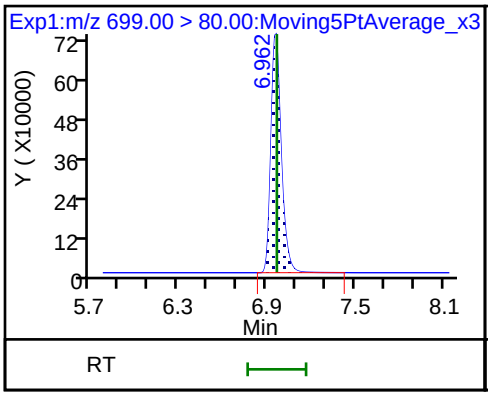
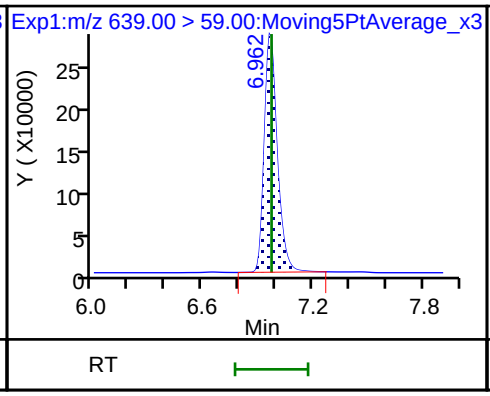


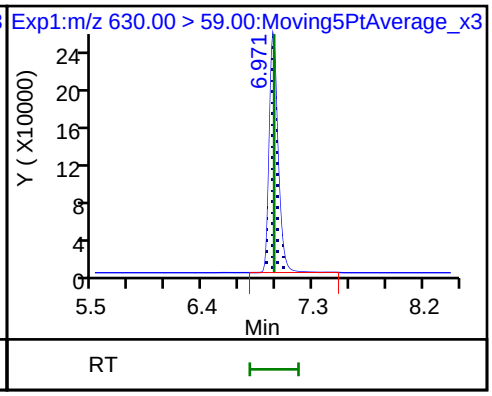
95 PFDoS



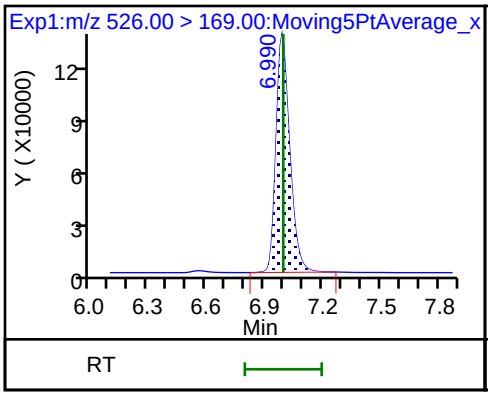
D 96 d9-N-EtFOSE-M



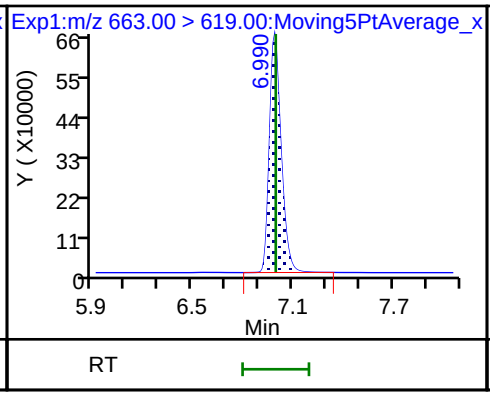
97 N-EtFOSE-M



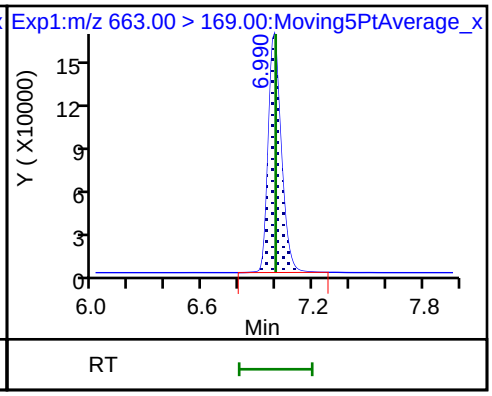
100 N-EtFOSA-M



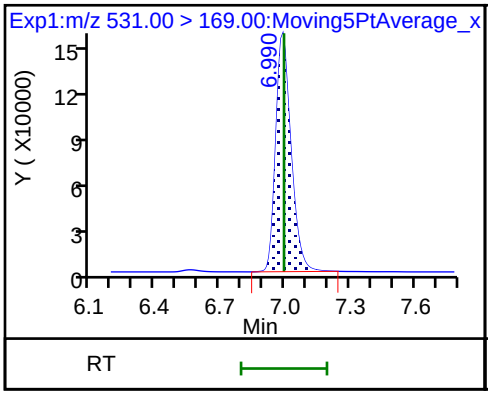
99 Perfluorotridecanoic acid



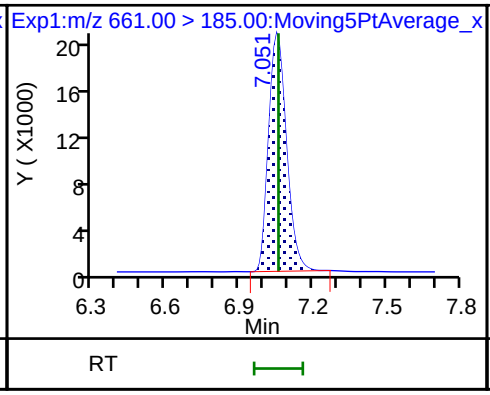
99 Perfluorotridecanoic acid



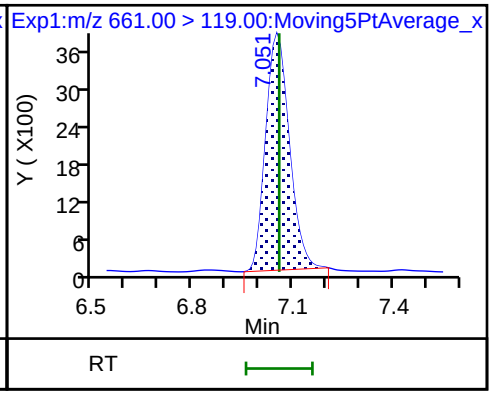
D 98 d5-NEtPFOSA



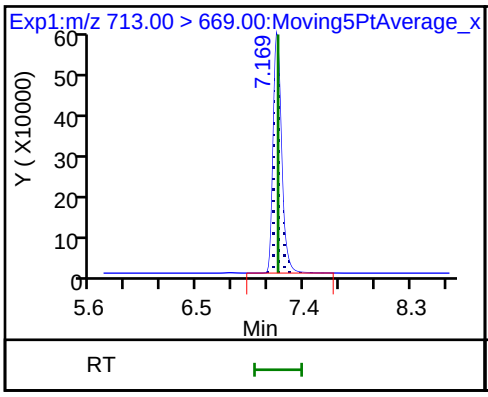
105 HFPOTeA



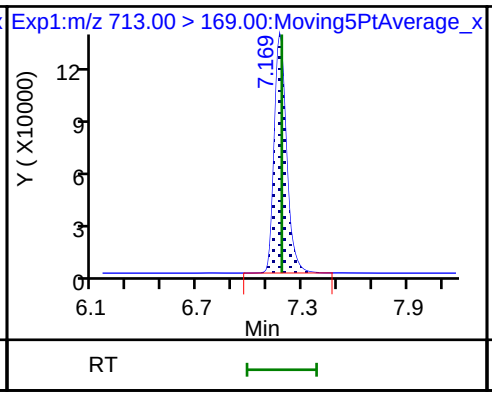
105 HFPOTeA



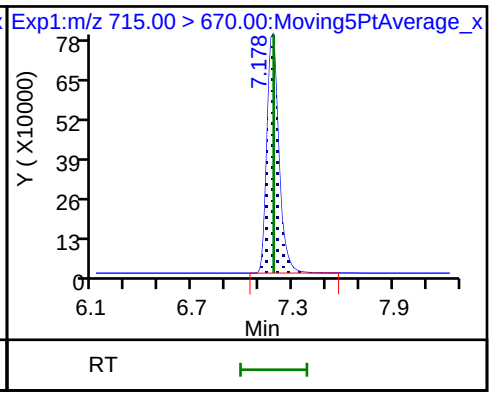
101 Perfluorotetradecanoic acid



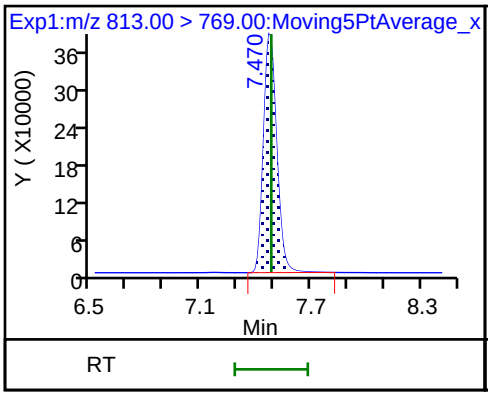
101 Perfluorotetradecanoic acid



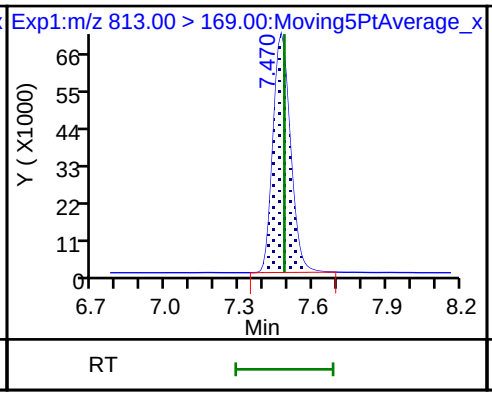
D 102 13C2 PFTeDA



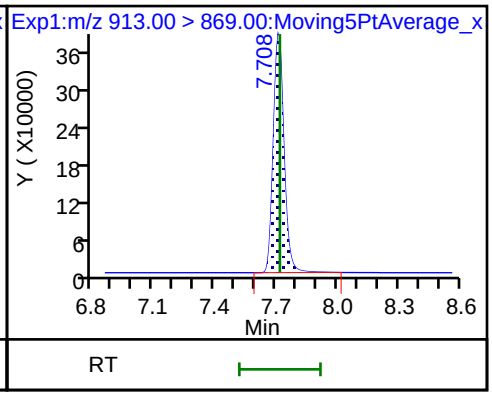
103 Perfluorohexadecanoic acid



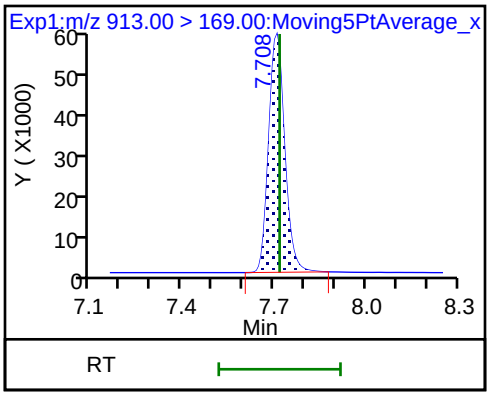
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-05.d
Lims ID: ICISAV CAL 5
Client ID:
Sample Type: ICISAV Calib Level: 5
Inject. Date: 01-Mar-2022 21:59:40 ALS Bottle#: 20006 Worklist Smp#: 5
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: ICISAV CAL 5
Misc. Info.: Plate: 1 Rack: 1 410-0051412-005
Operator ID: US19_USR_INS20261 Instrument ID: 30728
Sublist: chrom-PFAS_30728_XList*sub16

Method: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 01-Mar-2022 23:53:50 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1606

First Level Reviewer: polaskia Date: 01-Mar-2022 23:25:06
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.068	1.065	0.003	0.279	3023539	19.9		102	34764	
1 MTP										
175.00 > 97.00	1.520	1.518	0.002	0.398	1149629	20.9		104	26524	
2 PPF Acid										
163.00 > 119.00	1.877	1.874	0.003	0.491	5487926	20.6		103	15598	
3 PFMOAA										
179.00 > 85.00	2.894	2.891	0.003	0.757	4687651	20.6		103	38498	
4 R-PSDA										
441.00 > 241.00	3.795	3.792	0.003	0.850	401371	20.3		102	29750	
5 R-EVE										
405.00 > 217.00	3.795	3.793	0.002	0.993	1072338	20.7		103	78879	
D 6 13C4 PFBA										
217.00 > 172.00	3.823	3.816	0.007	1.000	5696515	10.1		101	120452	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.823	3.816	0.007	1.000	9853776	20.1		100	37452	
* 8 13C3-PFBA										
216.00 > 172.00	3.823	3.817	0.006		2618997	5.00			6220	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.823	3.817	0.006	0.856	1548367	20.6		103	76397	
10 PMPA										
229.00 > 185.00	3.963	3.956	0.007	1.037	6298467	21.7		108	90863	
11 PFPrS										
249.00 > 99.00	4.027	4.020	0.007	1.053	2612575	20.0		109	133285	
12 NVHOS										
297.00 > 135.00	4.066	4.060	0.006	0.911	2680403	20.5		102	133854	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 PFECA F										
229.00 > 85.00	4.085	4.082	0.003	1.069	11572261	21.4		107	13983	
14 PFO2HxA										
245.00 > 85.00	4.292	4.286	0.006	1.123	4488915	20.9		105	166533	
15 3:3 FTCA										
241.00 > 177.00	4.407	4.403	0.004	1.000	771122	20.8		104	46898	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.407	4.404	0.003	1.000	11508863	21.1		106	56597	
D 17 13C5 PFPeA										
268.00 > 223.00	4.407	4.404	0.003	1.153	4692219	10.2		102	97559	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.464	4.460	0.004	1.000	8607623	18.3	Target=3.14	103	128455	
299.00 > 99.00	4.464	4.460	0.004	1.000	2734614		3.15(1.57-4.71)	103	71623	
D 19 13C3 PFBS										
302.00 > 80.00	4.464	4.462	0.002	1.168	4529073	9.77		105	314817	
20 PEPA										
279.00 > 235.00	4.520	4.517	0.003	1.182	2193060	21.6		108	49373	
21 PFECA A										
279.00 > 85.00	4.549	4.543	0.006	1.019	10177734	20.5		103	342381	
22 PES										
315.00 > 135.00	4.640	4.638	0.002	1.039	25503447	18.3		103	1824424	
23 PFECA B										
201.00 > 85.00	4.780	4.771	0.009	1.071	15413650	20.2	Target=1.81	101	120785	
295.00 > 201.00	4.780	4.771	0.009	1.071	8666980		1.78(0.90-2.71)	101	442996	
110 FBSA										
299.00 > 78.00	4.800	4.792	0.008	1.075	500555	20.8		104	33038	
24 4:2 FTS										
327.00 > 307.00	4.810	4.803	0.007	1.000	3822091	18.2	Target=1.33	97.2	259098	
327.00 > 81.00	4.810	4.803	0.007	1.000	2737779		1.40(0.66-1.99)	97.2	137992	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.810	4.806	0.004	0.853	741786	10.2		109	30316	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.849	4.843	0.006	1.000	9861512	21.1	Target=12.64	105	128951	
313.00 > 119.00	4.849	4.843	0.006	1.000	773712		12.75(6.32-18.96)	105	30474	
D 27 13C5 PFHxA										
318.00 > 273.00	4.849	4.846	0.003	0.860	6032143	10.1		101	234230	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.870	4.863	0.007	1.091	8870444	19.8	Target=3.66	106	436883	
349.00 > 99.00	4.870	4.863	0.007	1.091	2419907		3.67(1.83-5.49)	106	157657	
29 PFO3OA										
311.00 > 85.00	4.909	4.903	0.006	1.284	5543783	21.0		105	270069	
30 HFPO-DA										
329.00 > 285.00	4.981	4.978	0.003	0.998	3697496	20.8		104	122799	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.991	4.983	0.008	0.885	1441967	10.3		103	96715	
32 Hydro-EVE Acid										
427.00 > 283.00	5.202	5.201	0.001	1.361	16688976	21.3		107	15271	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
34 Hydro-PS Acid										
463.00 > 263.00	5.202	5.246	-0.044	1.165	16938541	20.8		104	1601573	
33 R-PSDCA										
397.00 > 217.00	5.213	5.209	0.004	1.168	24473542	20.4		102	752586	
108 FBSEE										
386.00 > 166.00	5.224	5.220	0.004	1.170	473635	18.4	Target=1.76	91.8	21853	
386.00 > 80.00	5.224	5.220	0.004	1.170	255472		1.85(0.88-2.64)	91.8	15846	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.257	5.254	0.003	1.000	12443361	20.5	Target=3.54	103	286669	
363.00 > 169.00	5.257	5.254	0.003	1.000	3565512		3.49(1.77-5.31)	103	131363	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.257	5.254	0.003	1.000	8053935	18.6	Target=3.57	102	17585	
399.00 > 99.00	5.257	5.254	0.003	1.000	2193339		3.67(1.78-5.35)	102	4898	
D 37 13C3 PFHxS										
402.00 > 80.00	5.257	5.254	0.003	0.932	4211545	9.90		105	262766	
D 38 13C4 PFHpA										
367.00 > 322.00	5.257	5.255	0.002	0.932	6615575	10.3		103	175774	
39 DONA										
377.00 > 251.00	5.311	5.303	0.008	1.010	14813432	19.4		102	700448	
40 PFECA G										
379.00 > 185.00	5.332	5.322	0.010	1.395	19439718	21.2		106	1246118	
41 5:3 FTCA										
341.00 > 237.00	5.342	5.338	0.004	1.016	2358328	20.8	Target=3.04	104	58086	
341.00 > 217.00	5.342	5.338	0.004	1.016	799936		2.95(1.52-4.55)	104	38652	
42 6:2 FTUCA										
357.00 > 293.00	5.361	5.359	0.002	0.998	9503740	21.4		107	213452	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.369	5.361	0.008	0.952	3588401	10.2		102	81231	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.387	5.379	0.008	0.955	549745	9.93		99.3	38700	
44 6:2 FTCA										
377.00 > 293.00	5.378	5.378	0.0	0.998	1177217	20.7		104	48700	
46 PFO4DA										
377.00 > 85.00	5.437	5.435	0.002	1.422	6482943	20.2		101	980	
47 PS Acid										
443.00 > 147.00	5.480	5.479	0.001	1.228	6261745	21.7		108	437267	
48 EVE Acid										
407.00 > 263.00	5.509	5.500	0.009	1.441	17575943	21.8		109	1216035	
49 PFECHS										
461.00 > 381.00	5.577	5.569	0.008	1.061	11464566	19.7	Target=1.56	107	477800	
461.00 > 99.00	5.577	5.569	0.008	1.061	7297169		1.57(0.78-2.34)	107	299880	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.621	5.614	0.007	0.997	264196	10.1		107	17828	
50 6:2 FTS										
427.00 > 407.00	5.621	5.613	0.008	1.000	1924923	19.0	Target=1.19	100	129891	
427.00 > 81.00	5.621	5.613	0.008	1.000	1665281		1.16(0.60-1.79)	100	84431	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.621	5.618	0.003	1.069	8188039	19.1	Target=3.73	100	556857	
449.00 > 99.00	5.621	5.618	0.003	1.069	2172488		3.77(1.87-5.60)	100	113356	
D 54 13C8 PFOA										
421.00 > 376.00	5.640	5.631	0.009	1.000	6618182	10.5		105	332134	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.640	5.630	0.010	1.000	9830042	19.9	Target=2.20	99.5	845461	
413.00 > 169.00	5.630	5.630	0.0	0.998	4519901		2.17(1.10-3.30)	99.5	816952	
* 55 13C2 PFOA										
415.00 > 370.00	5.640	5.631	0.009		2579419	5.00			130090	
106 FHxSA										
399.00 > 78.00	5.699	5.691	0.008	1.084	597694	21.0		105	29809	
56 TAF										
443.00 > 85.00	5.882	5.879	0.003	1.539	6243498	20.5		103	49969	
D 58 13C8 PFOS										
507.00 > 80.00	5.965	5.955	0.010	1.000	4613122	9.76		102	38965	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.956	5.954	0.002	0.999	9154936	19.4	Target=4.38	105	3671	
499.00 > 99.00	5.956	5.954	0.002	0.999	1990266		4.60(2.19-6.58)	105	4154	
* 59 13C4 PFOS										
503.00 > 80.00	5.965	5.955	0.010		2332439	4.78			98668	
61 Perfluorononanoic acid										
463.00 > 419.00	5.982	5.973	0.009	1.000	8397991	21.8	Target=3.95	109	253960	
463.00 > 169.00	5.973	5.973	0.0	0.999	2161036		3.89(1.97-5.92)	109	114271	
D 60 13C9 PFNA										
472.00 > 427.00	5.982	5.975	0.007	1.003	4425816	9.57		95.7	309829	
109 HFPO-TrA										
496.00 > 185.00	6.073	6.068	0.005	1.217	122299	56.0		93.3	7761	
62 7:3 FTCA										
441.00 > 337.00	6.083	6.077	0.006	1.129	2775373	20.8		104	183242	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.093	6.085	0.008	0.969	3654792	9.71		97.1	121605	
63 8:2 FTUCA										
457.00 > 393.00	6.093	6.084	0.009	1.000	7340395	21.3		106	367645	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.113	6.102	0.011	0.972	395964	9.35		93.5	26847	
65 8:2 FTCA										
477.00 > 393.00	6.103	6.099	0.004	0.998	819967	20.7		104	41518	
67 9ClFOS										
531.00 > 351.00	6.141	6.130	0.011	1.030	13212521	19.5		105	133031	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.264	6.254	0.010	1.050	9137557	19.5	Target=4.33	102	664060	
549.00 > 99.00	6.255	6.254	0.001	1.049	2207586		4.14(2.16-6.49)	102	163941	
D 71 13C6 PFDA										
519.00 > 474.00	6.290	6.282	0.008	1.000	5916808	10.0		100	255546	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
69 Perfluorodecanoic acid										
513.00 > 469.00	6.290	6.279	0.011	1.000	10071383	20.2	Target=7.98	101	355041	
513.00 > 169.00	6.281	6.279	0.002	0.999	1297088		7.76(3.99-11.97)	101	40098	
72 8:2 FTS										
527.00 > 507.00	6.290	6.282	0.008	1.000	1732746	18.5	Target=1.01	96.6	123129	
527.00 > 81.00	6.290	6.282	0.008	1.000	1716350		1.01(0.50-1.51)	96.6	72273	
* 70 13C2 PFDA										
515.00 > 470.00	6.290	6.282	0.008		3087232	5.00			220123	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.290	6.285	0.005	1.000	157795	10.3		108	11102	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.374	6.371	0.003	0.998	15700453	21.8		109	747617	
D 74 13C8 FOSA										
506.00 > 78.00	6.385	6.375	0.010	1.015	7268255	9.56		95.6	279700	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.436	6.428	0.008	1.023	1645094	9.93		99.3	11326	
76 NMeFOSAA										
570.00 > 419.00	6.436	6.430	0.006	1.000	3024366	20.8	Target=1.69	104	3060	
570.00 > 483.00	6.436	6.430	0.006	1.000	1656046		1.83(0.85-2.54)	104	3079	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.527	6.522	0.005	1.094	9240113	20.1	Target=4.28	104	434236	
599.00 > 99.00	6.527	6.522	0.005	1.094	2123309		4.35(2.14-6.42)	104	134280	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.562	6.550	0.012	1.000	9288764	20.2	Target=7.28	101	207742	
563.00 > 169.00	6.551	6.550	0.001	0.998	1313169		7.07(3.64-10.92)	101	59599	
D 80 13C7 PFUnA										
570.00 > 525.00	6.562	6.557	0.005	1.043	6176500	9.90		99.0	374850	
82 NEtFOSAA										
584.00 > 419.00	6.574	6.570	0.004	1.000	2230106	19.6	Target=1.63	97.8	234730	
584.00 > 526.00	6.574	6.570	0.004	1.000	1362645		1.64(0.82-2.45)	97.8	2225	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.574	6.569	0.005	1.045	1187901	10.0		100	35512	
83 10:2 FTUCA										
557.00 > 493.00	6.665	6.654	0.011	1.000	6623509	21.8		109	411020	
84 11ClFOS										
631.00 > 451.00	6.665	6.660	0.005	1.117	9637353	19.2		103	456171	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.665	6.660	0.005	1.060	3153841	9.52		95.2	97888	
86 10:2 FTCA										
577.00 > 493.00	6.675	6.670	0.005	1.000	582115	21.2		106	35682	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.675	6.670	0.005	1.061	282174	9.15		91.5	17441	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.791	6.787	0.004	0.998	8906269	20.5	Target=4.76	102	269157	
613.00 > 169.00	6.791	6.787	0.004	0.998	1826971		4.87(2.38-7.14)	102	66449	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.803	6.796	0.007	1.082	4767188	10.0		100	219644	

Report Date: 01-Mar-2022 23:53:52 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-05.d
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.824	6.813	0.011	1.085	1229507	9.93		99.3	13622	
90 10:2 FTS										
627.00 > 607.00	6.813	6.810	0.003	1.083	1337792	19.2	Target=0.75	99.7	82847	
627.00 > 81.00	6.813	6.810	0.003	1.083	1793015		0.75(0.38-1.13)	99.7	112993	
92 N-MeFOSE-M										
616.00 > 59.00	6.824	6.820	0.004	1.000	2558846	20.5		103	48524	
94 NMeFOSA										
512.00 > 169.00	6.834	6.829	0.005	1.000	1541702	20.4		102	29247	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.834	6.829	0.005	1.087	776244	9.86		98.6	16562	
95 PFDoS										
699.00 > 80.00	6.971	6.967	0.004	1.169	8433575	20.5		106	583600	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.981	6.973	0.008	1.110	1333441	9.51		95.1	13031	
97 N-EtFOSE-M										
630.00 > 59.00	6.990	6.981	0.009	1.001	2845389	21.2		106	95596	
100 N-EtFOSA-M										
526.00 > 169.00	7.009	6.996	0.013	1.001	1640317	21.9		109	32629	
99 Perfluorotridecanoic acid										
663.00 > 619.00	7.009	6.996	0.013	1.030	8110630	21.5	Target=4.11	107	203227	
663.00 > 169.00	6.999	6.996	0.003	1.029	1874937		4.33(2.06-6.17)	107	95636	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.999	6.995	0.004	1.113	717676	9.81		98.1	18044	
105 HFPOTeA										
661.00 > 185.00	7.062	7.058	0.004	1.415	140012	59.9	Target=4.76	101	9128	
661.00 > 119.00	7.073	7.058	0.015	1.417	30387		4.61(2.38-7.14)	101	2005	
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.189	7.181	0.008	1.000	6744664	20.5	Target=4.34	103	174458	
713.00 > 169.00	7.189	7.181	0.008	1.000	1559157		4.33(2.17-6.50)	103	105781	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.189	7.184	0.005	1.143	3719679	9.73		97.3	128395	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.491	7.483	0.008	1.042	4353591	20.1	Target=5.44	100	112671	
813.00 > 169.00	7.491	7.483	0.008	1.042	789735		5.51(2.72-8.16)	100	26946	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.722	7.717	0.005	1.074	3215913	20.7	Target=6.37	103	77463	
913.00 > 169.00	7.722	7.717	0.005	1.074	505856		6.36(3.18-9.55)	103	23939	

QC Flag Legend

Processing Flags

Reagents:

PFC_STD_XMOD5_00014 Amount Added: 200.00 Units: uL

Report Date: 01-Mar-2022 23:53:52 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-05.d

Injection Date: 01-Mar-2022 21:59:40 Instrument ID: 30728

Lims ID: ICISAV CAL 5

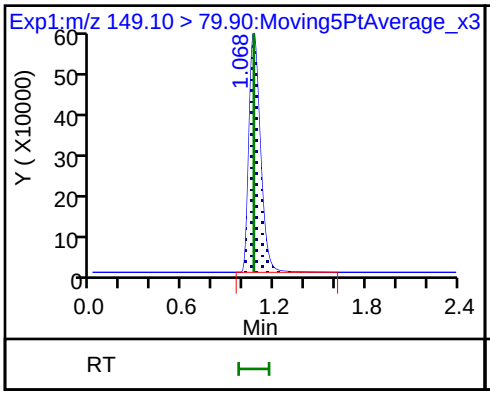
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20006 Worklist Smp#: 5

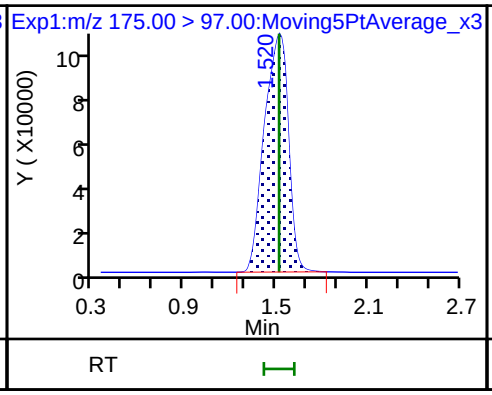
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

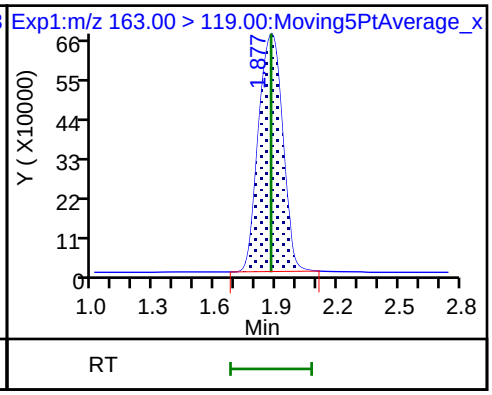
107 Sodium trifluoromethanesulfonate



1 MTP



2 PPF Acid



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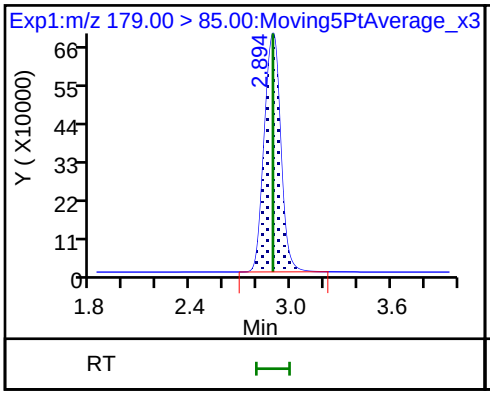
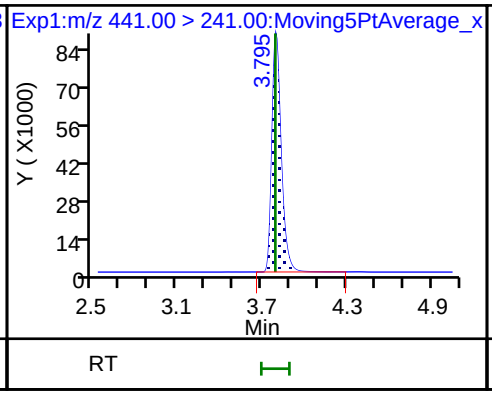
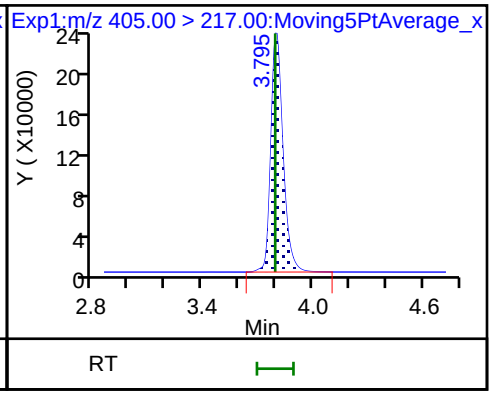


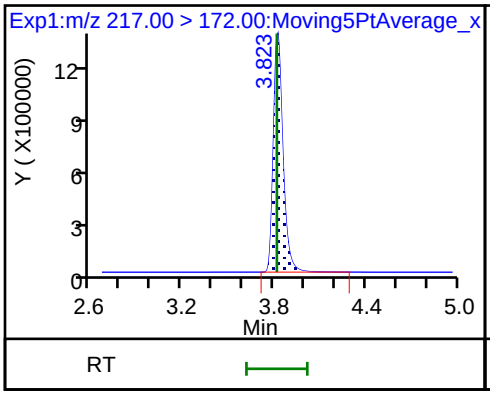
4 R-PSDA



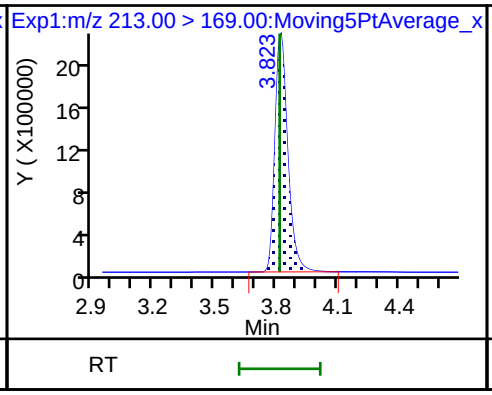
5 R-EVE



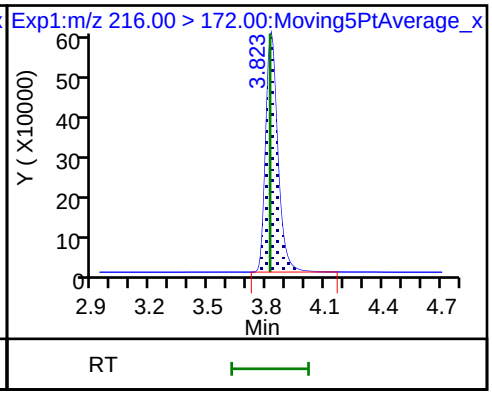
D 6 13C4 PFBA



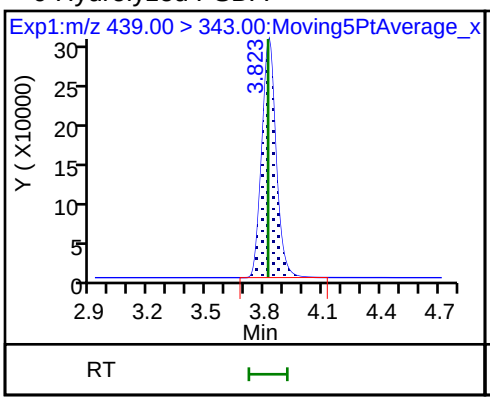
7 Perfluorobutanoic acid



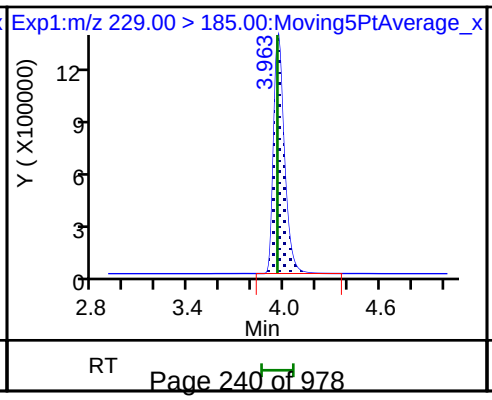
* 8 13C3-PFBA



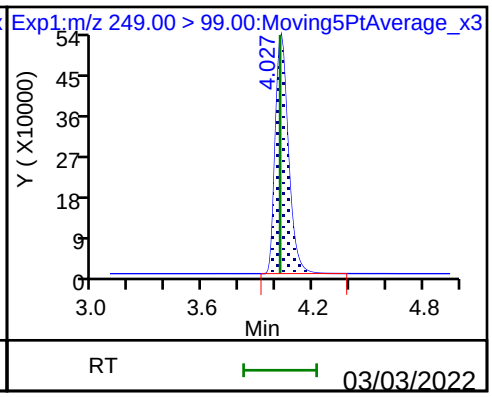
9 Hydrolyzed PSDA



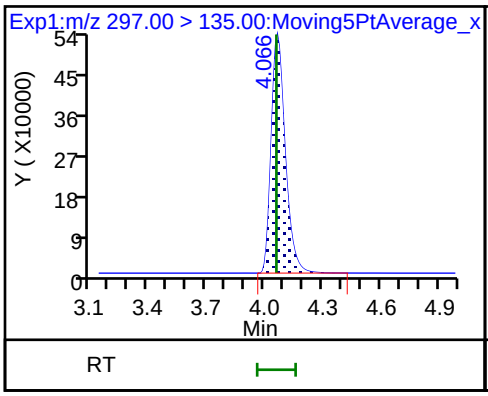
10 PMPA



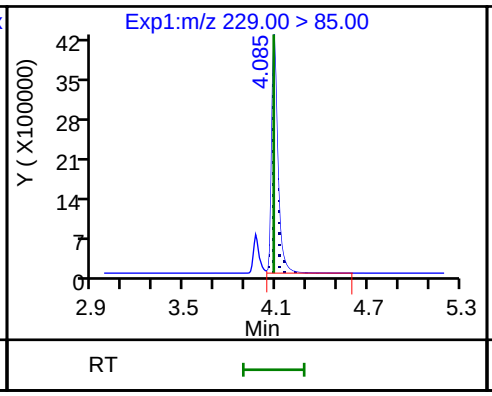
11 PFPrS



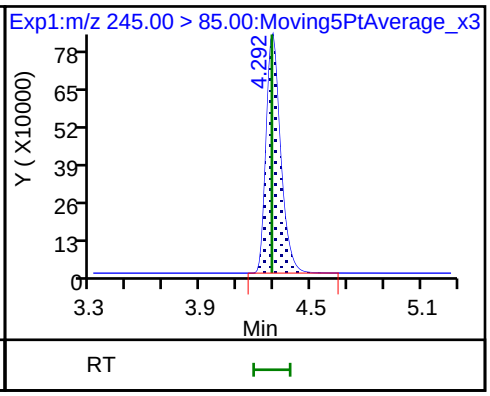
12 NVHOS



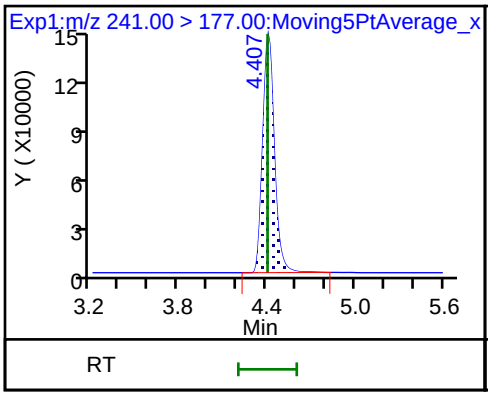
13 PFECA F



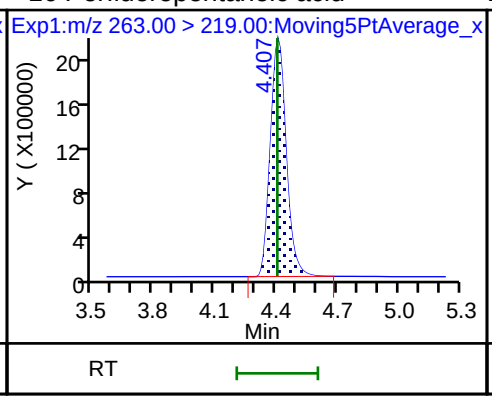
14 PFO2HxA



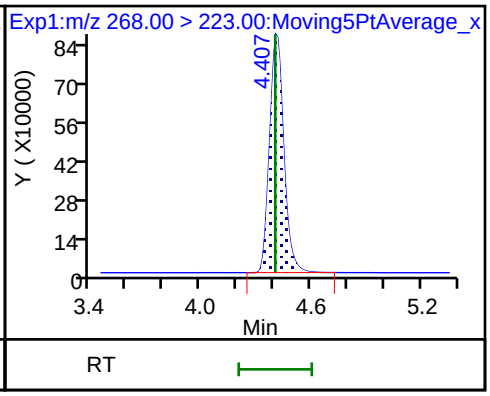
15 3:3 FTCA



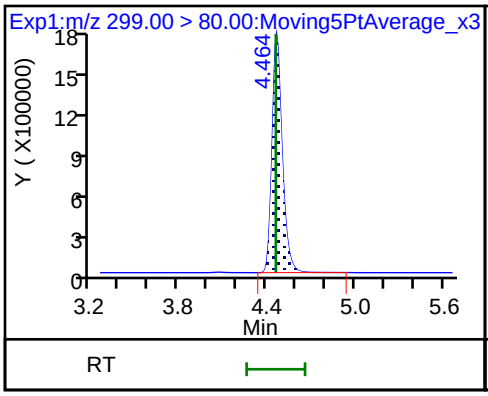
16 Perfluoropentanoic acid



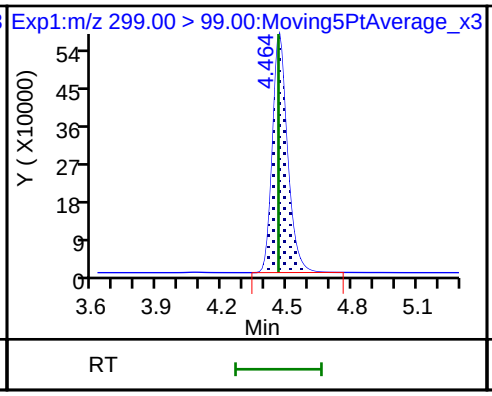
D 17 13C5 PFPeA



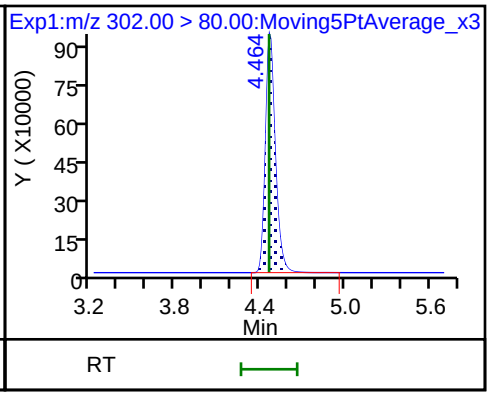
18 Perfluorobutanesulfonic acid



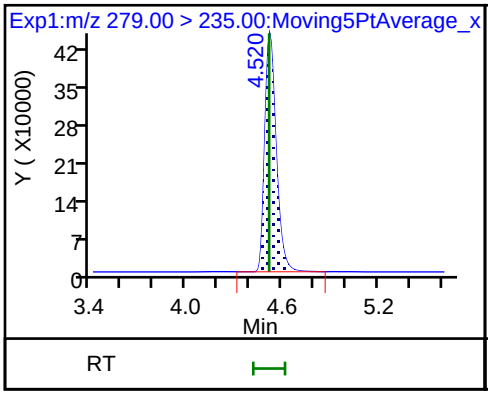
18 Perfluorobutanesulfonic acid



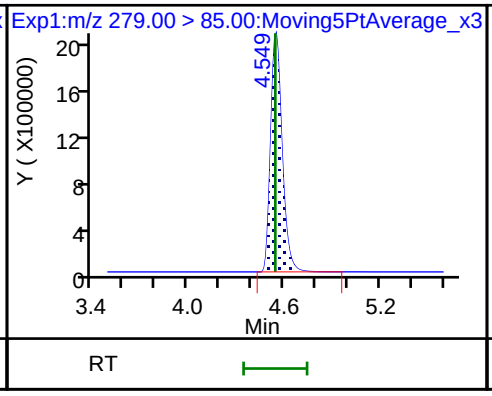
D 19 13C3 PFBS



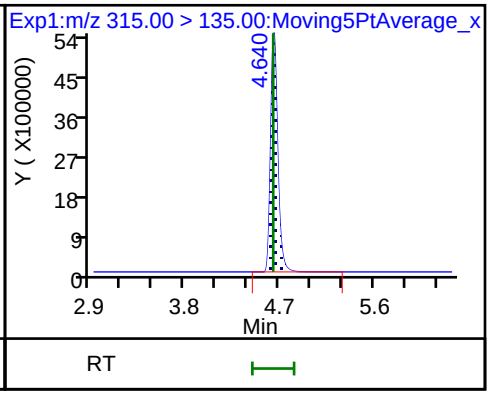
20 PEPA



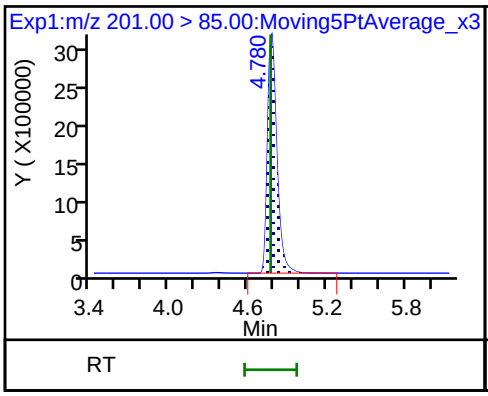
21 PFECA A



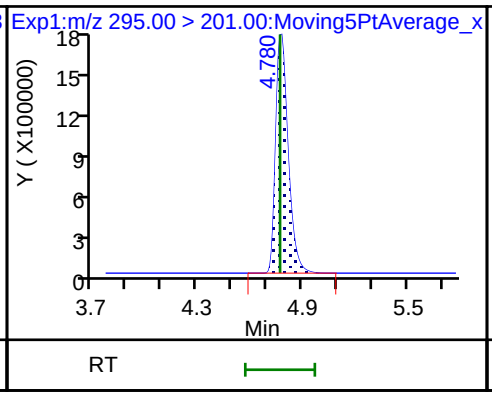
22 PES



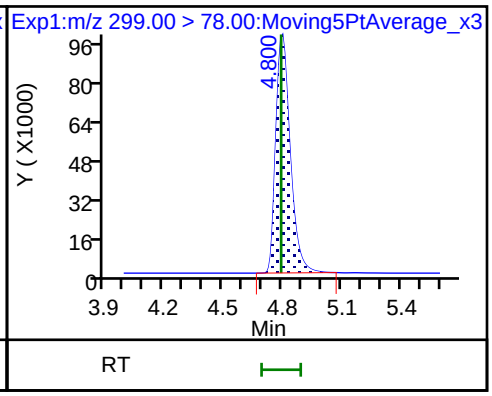
23 PFECA B



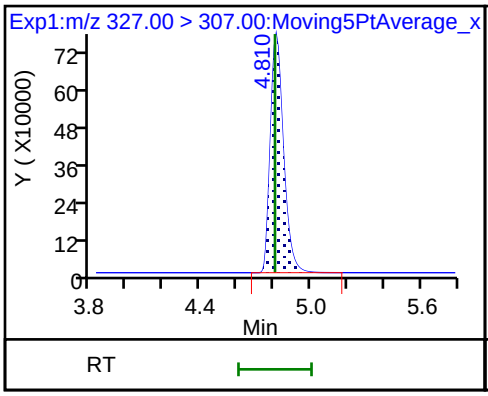
23 PFECA B



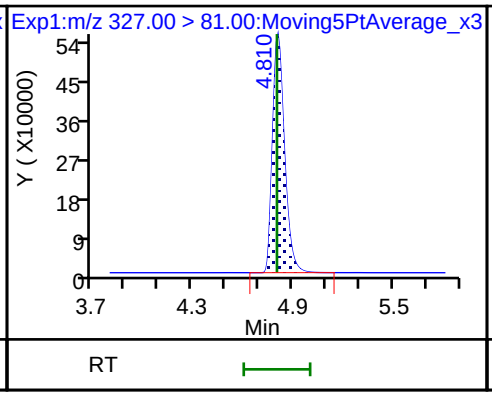
110 FBSA



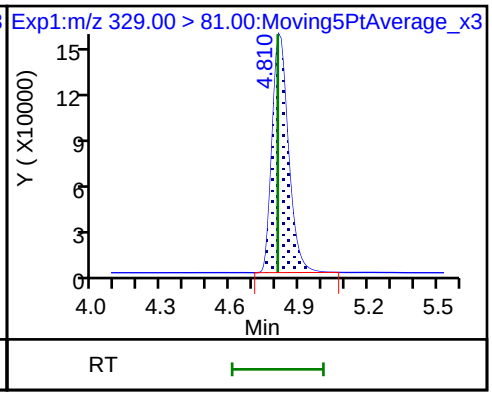
24 4:2 FTS



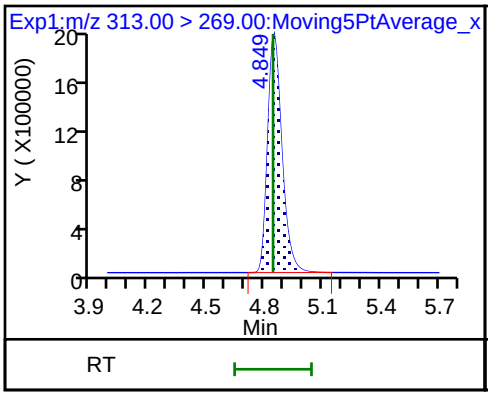
24 4:2 FTS



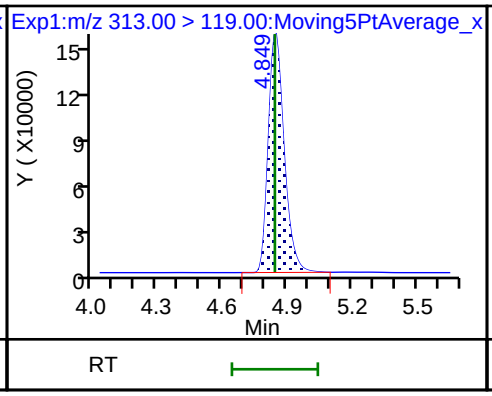
D 25 M2-4:2 FTS



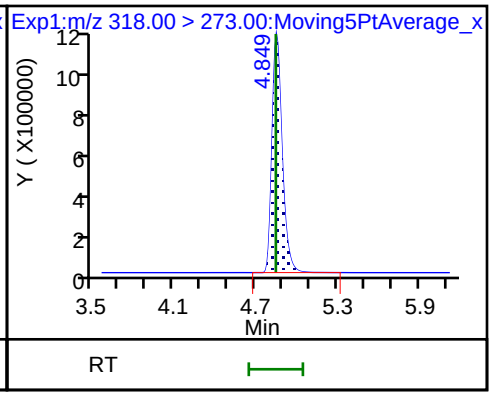
26 Perfluorohexanoic acid



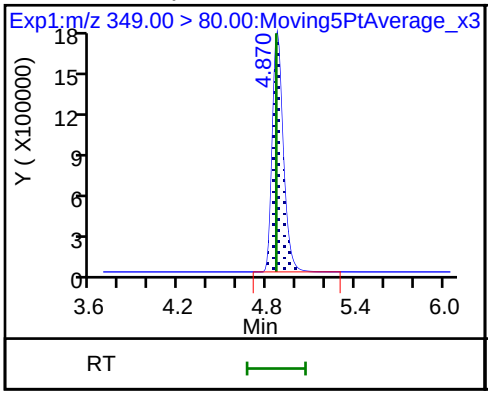
26 Perfluorohexanoic acid



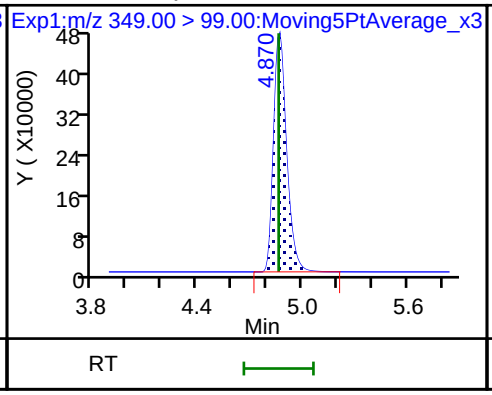
D 27 13C5 PFHxA



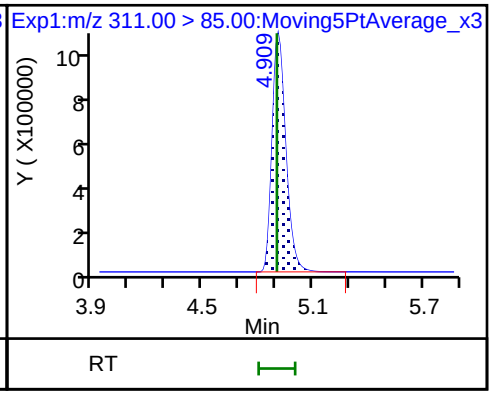
28 Perfluoropentanesulfonic acid



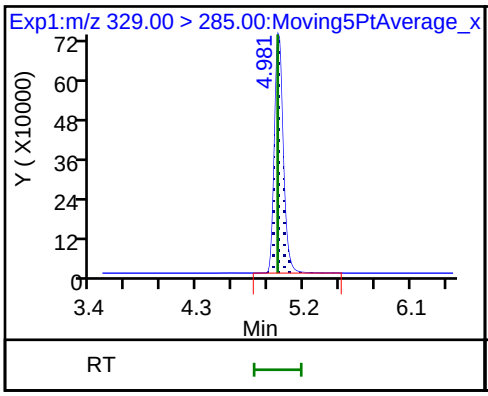
28 Perfluoropentanesulfonic acid



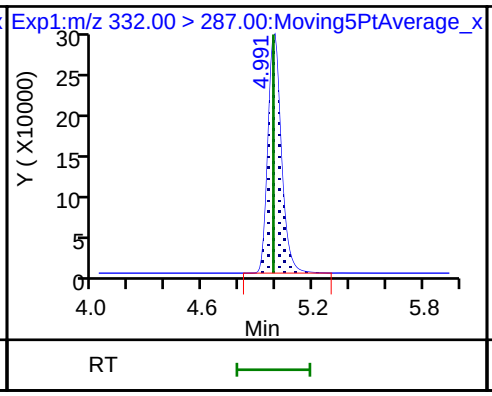
29 PFO3OA



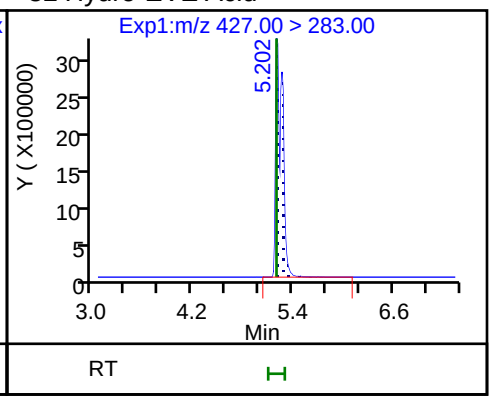
30 HFPO-DA



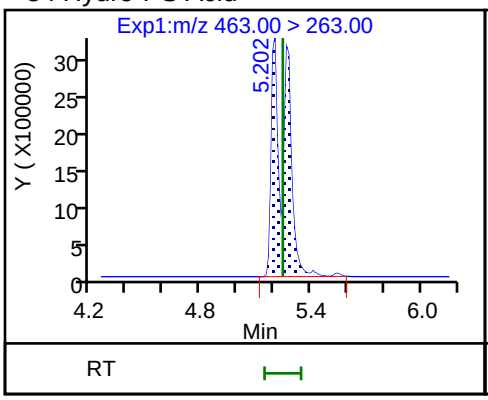
D 31 13C3 HFPO-DA



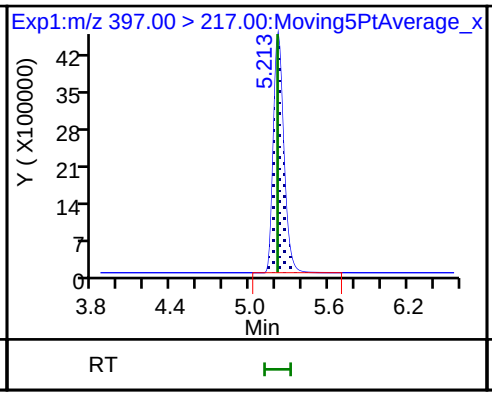
32 Hydro-EVE Acid



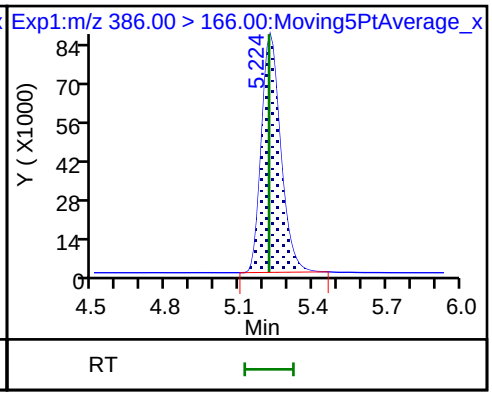
34 Hydro-PS Acid



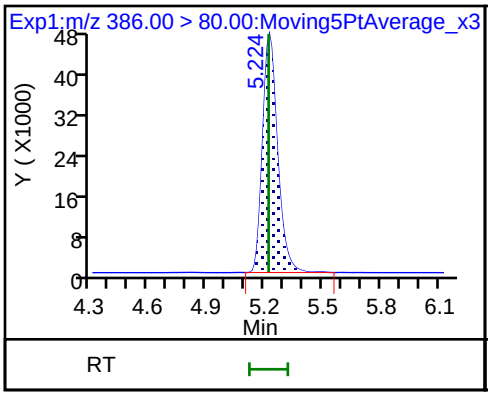
33 R-PSDCA



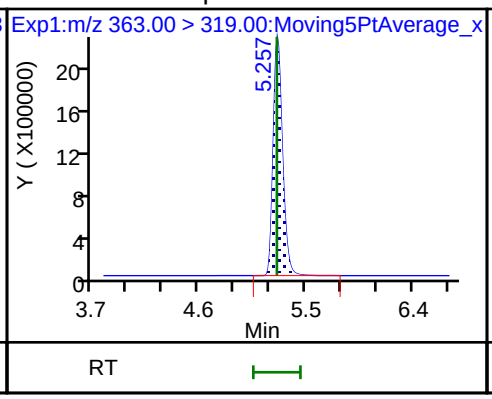
108 FBSEE



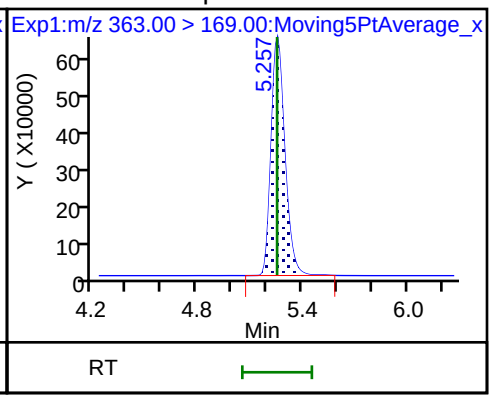
108 FBSEE



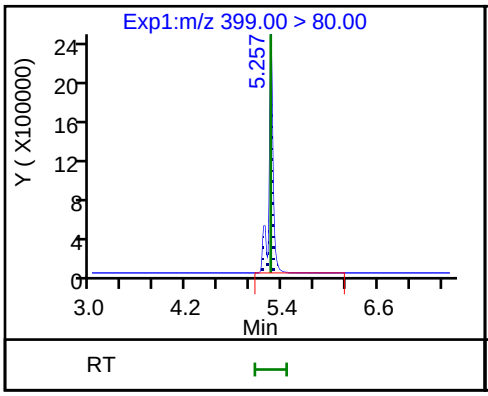
36 Perfluoroheptanoic acid



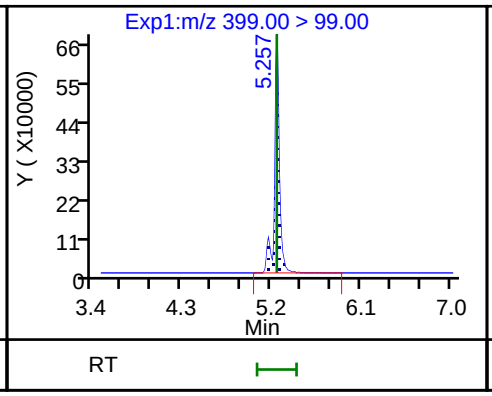
36 Perfluoroheptanoic acid



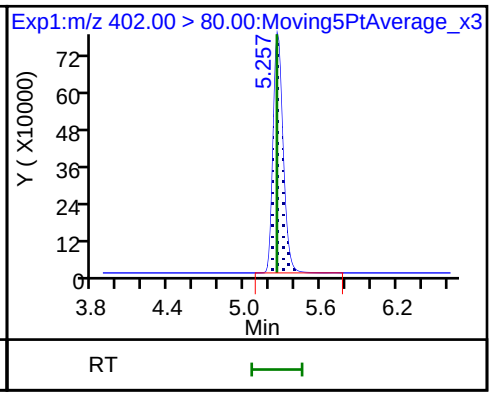
35 Perfluorohexanesulfonic acid



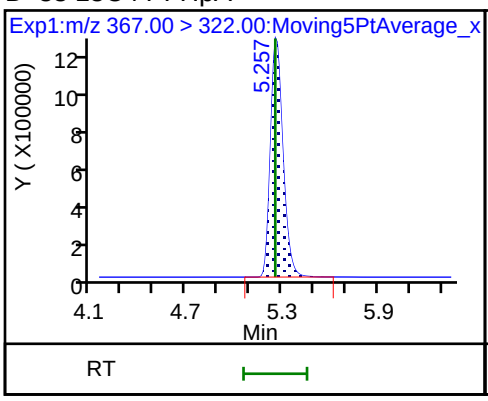
35 Perfluorohexanesulfonic acid



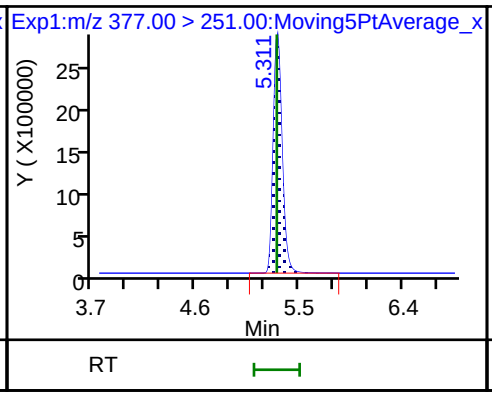
D 37 13C3 PFHxS



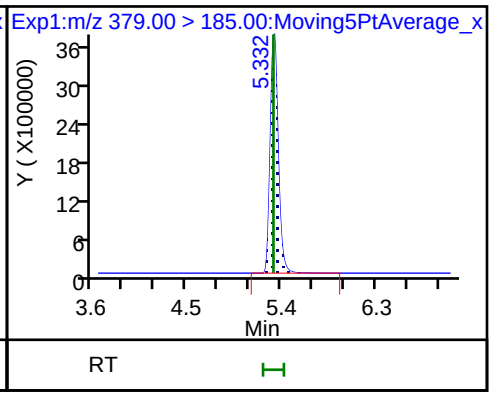
D 38 13C4 PFHpA



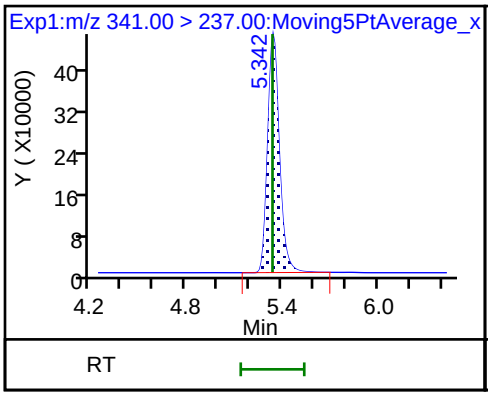
39 DONA



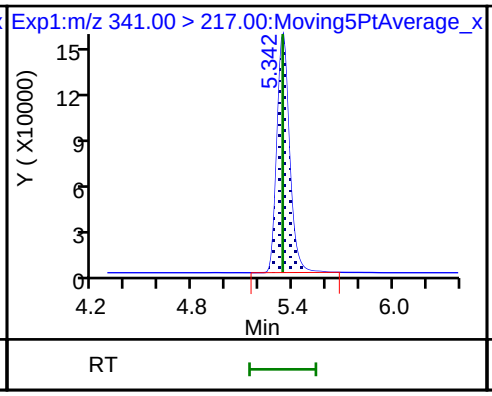
40 PFECA G



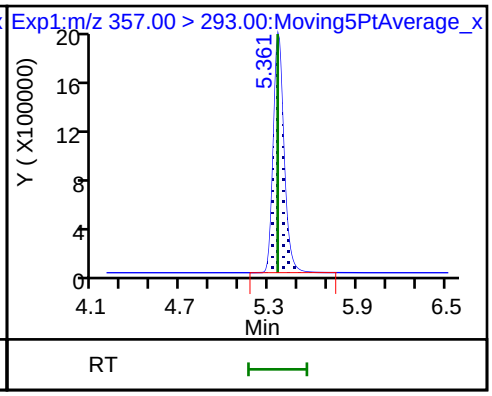
41 5:3 FTCA



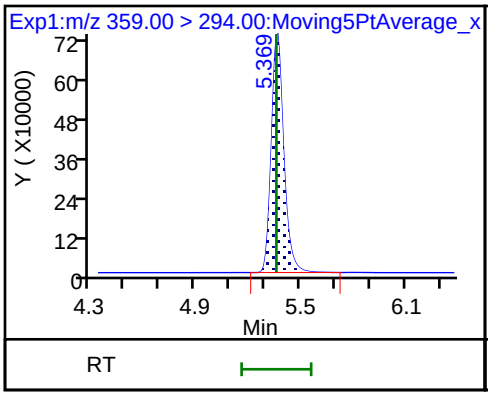
41 5:3 FTCA



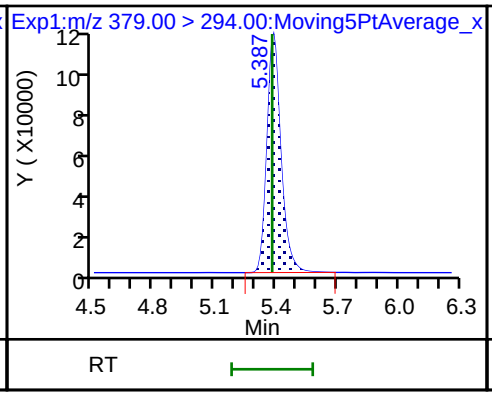
42 6:2 FTUCA



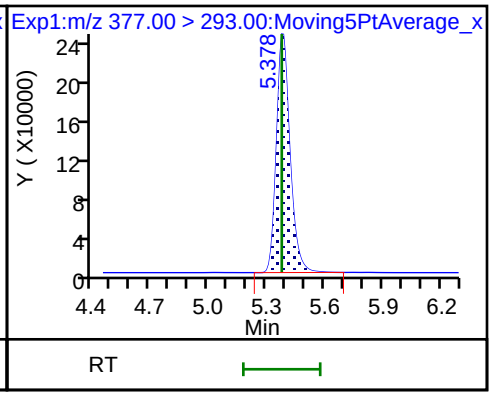
D 43 13C-6:2 FTUCA



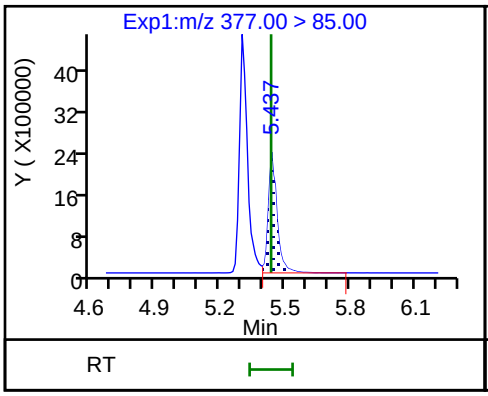
D 45 13C-6:2 FTCA



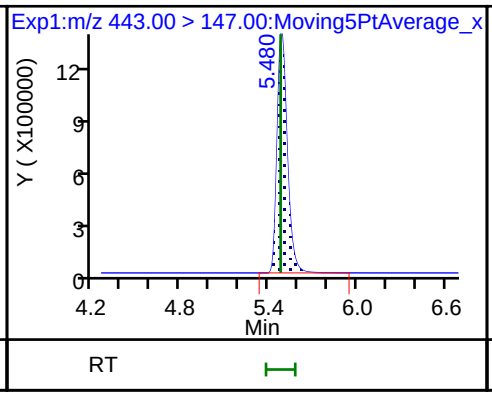
44 6:2 FTCA



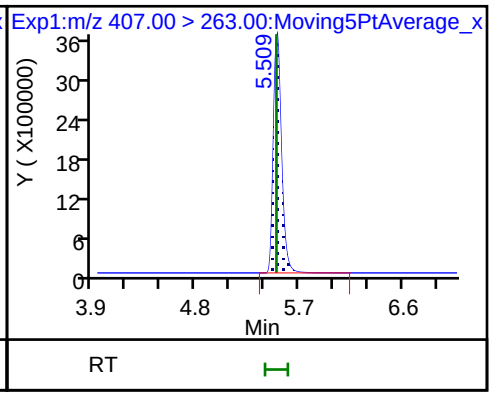
46 PFO4DA



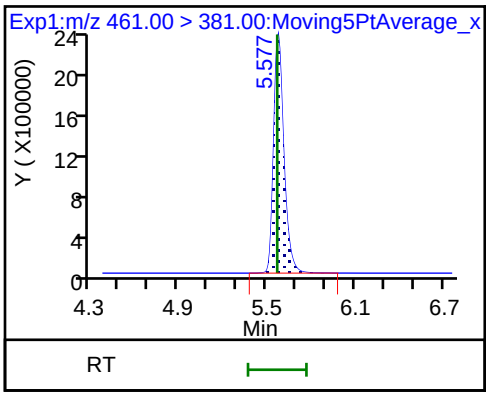
47 PS Acid



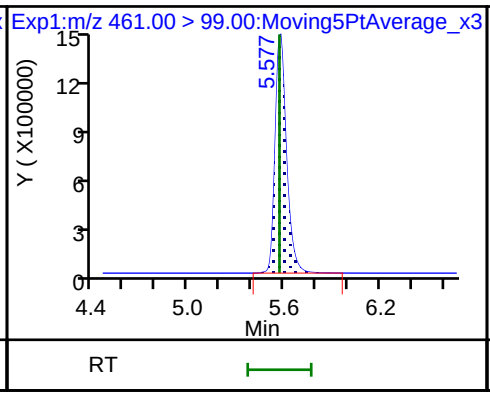
48 EVE Acid



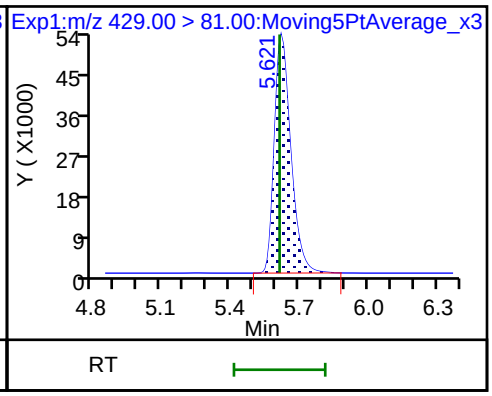
49 PFECHS



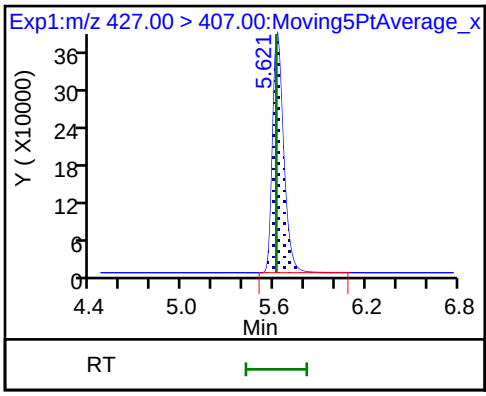
49 PFECHS



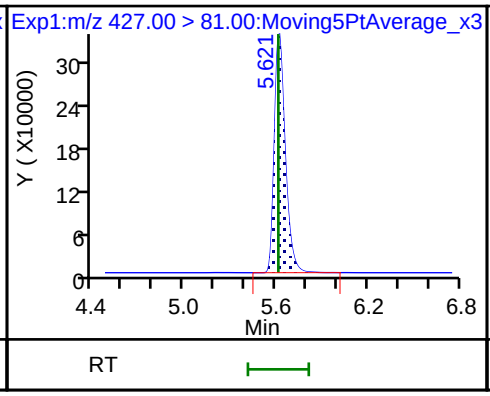
D 52 M2-6:2 FTS



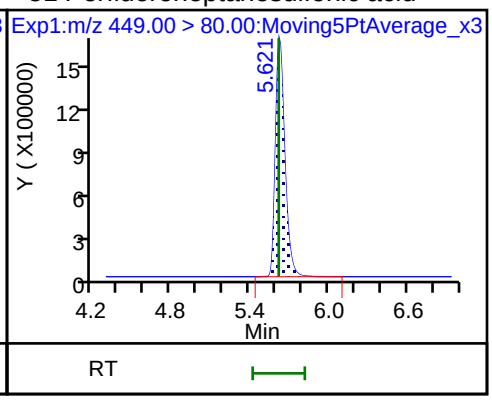
50 6:2 FTS



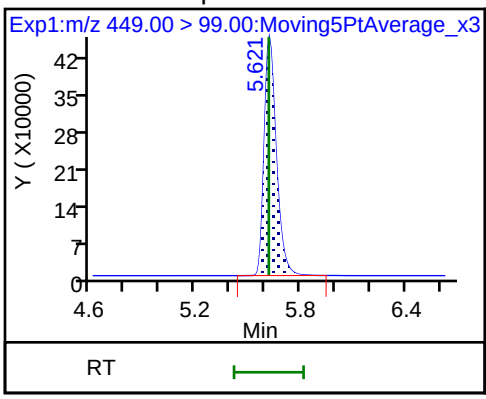
50 6:2 FTS



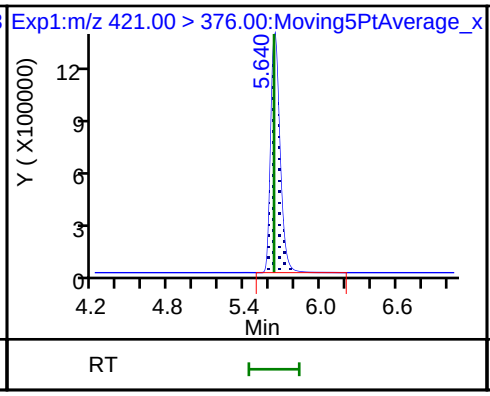
51 Perfluoroheptanesulfonic acid



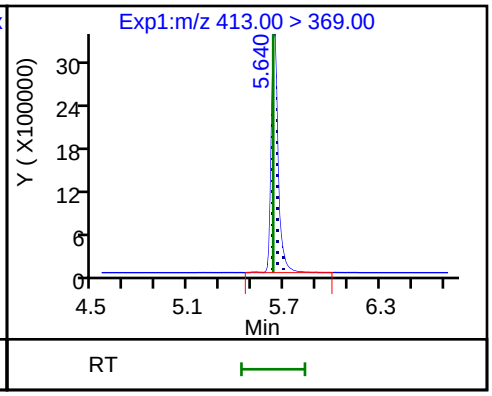
51 Perfluoroheptanesulfonic acid



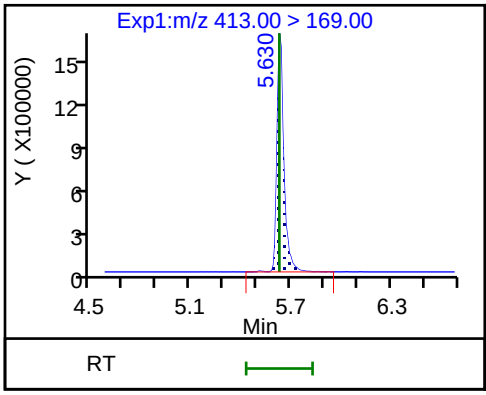
D 54 13C8 PFOA



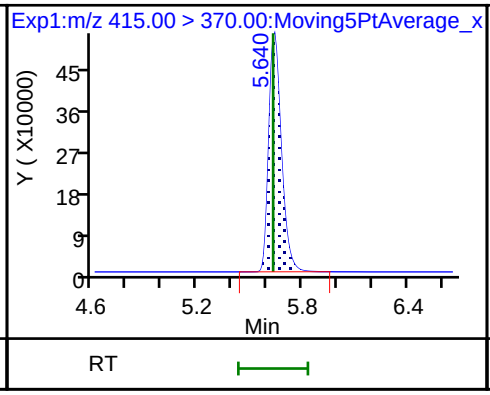
53 Perfluorooctanoic acid



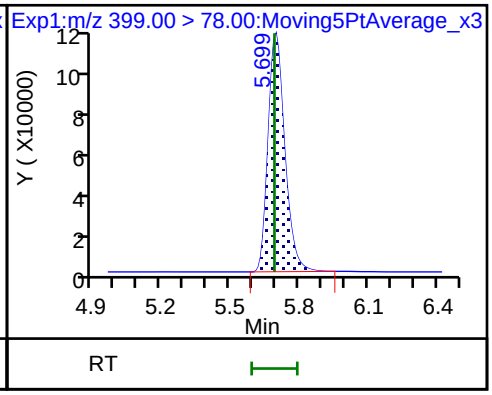
53 Perfluorooctanoic acid



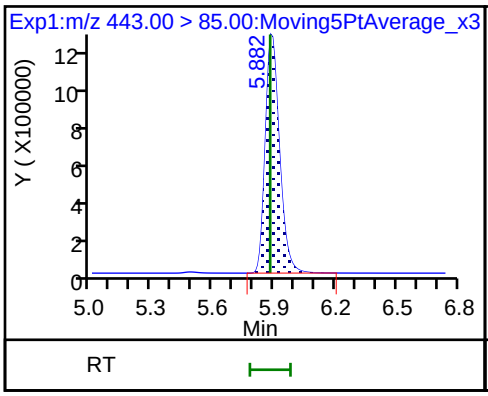
* 55 13C2 PFOA



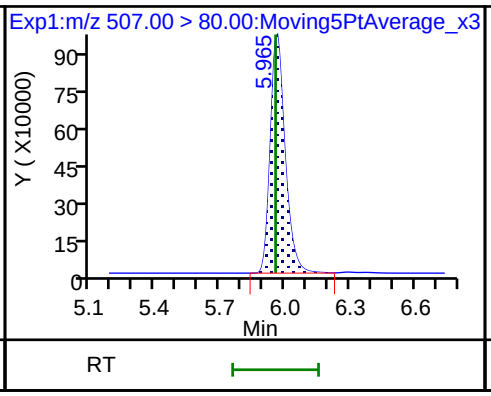
106 FHxSA



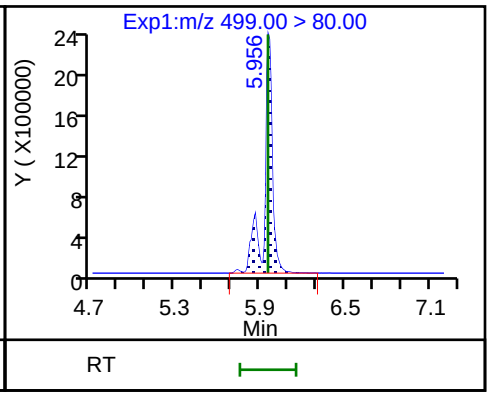
56 TAF



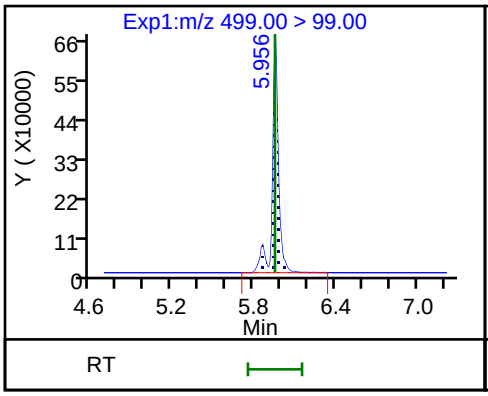
D 58 13C8 PFOS



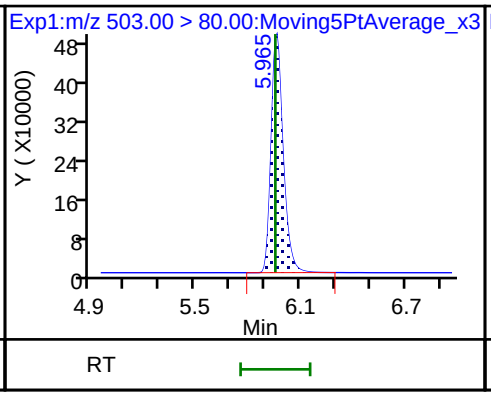
57 Perfluorooctanesulfonic acid



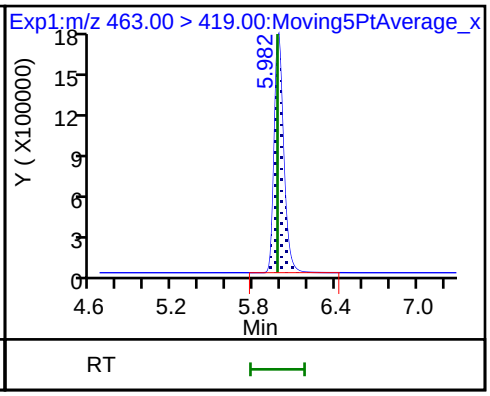
57 Perfluorooctanesulfonic acid



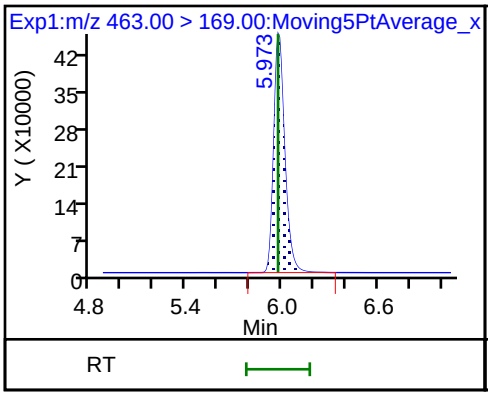
* 59 13C4 PFOS



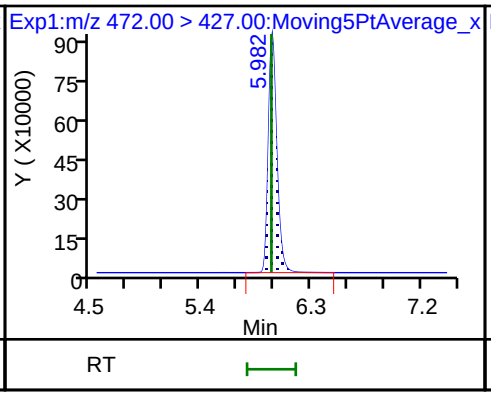
61 Perfluorononanoic acid



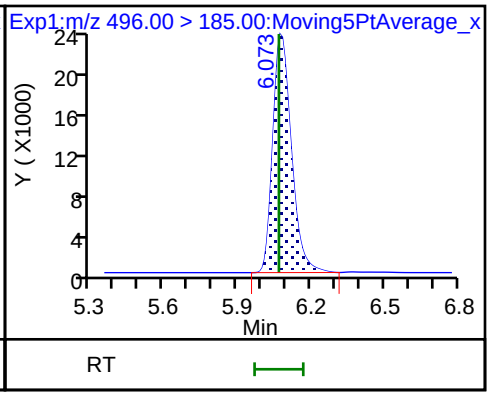
61 Perfluorononanoic acid



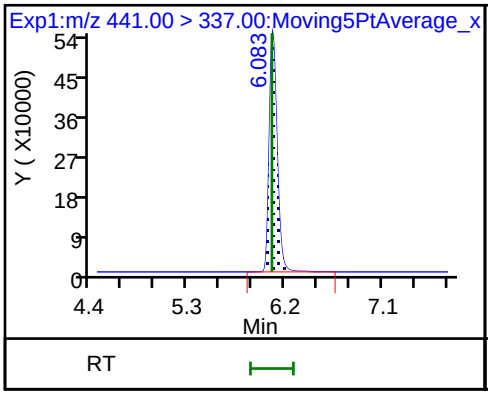
D 60 13C9 PFNA



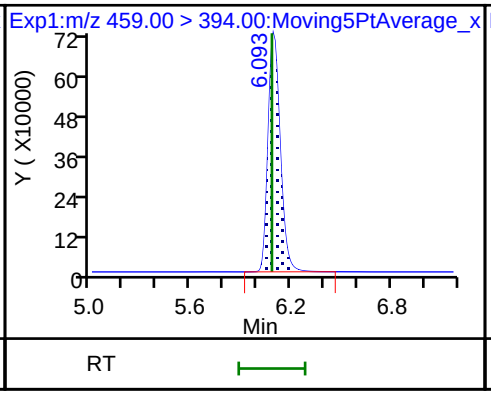
109 HFPO-TrA



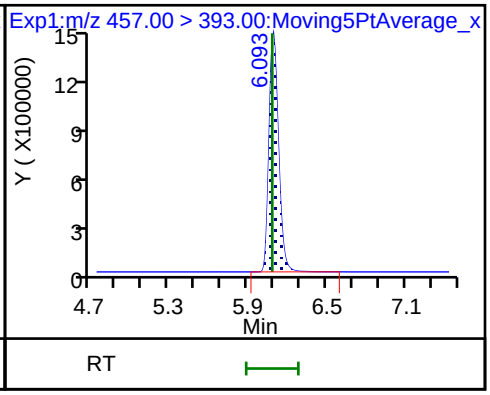
62 7:3 FTCA



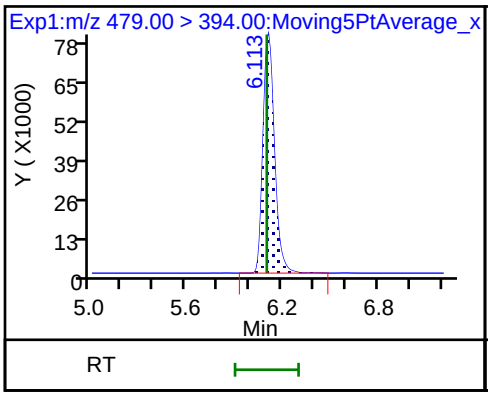
D 64 13C-8:2 FTUCA



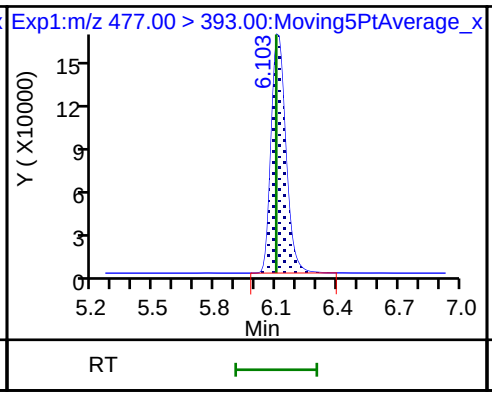
63 8:2 FTUCA



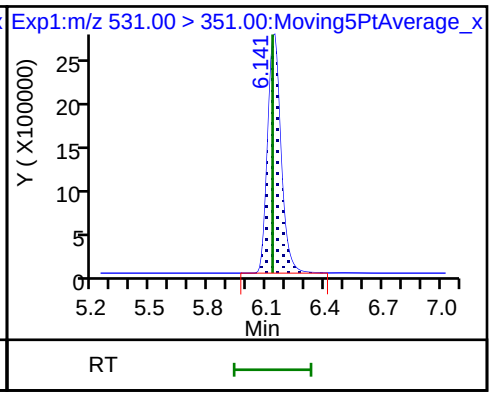
D 66 13C-8:2 FTCA



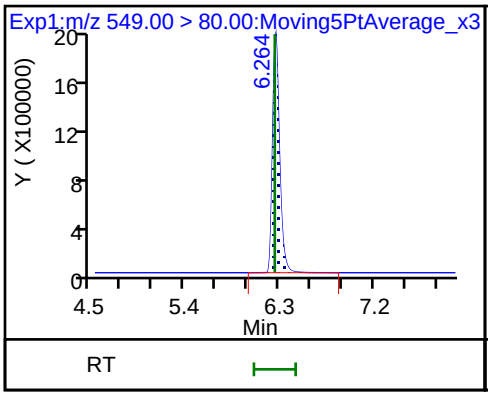
65 8:2 FTCA



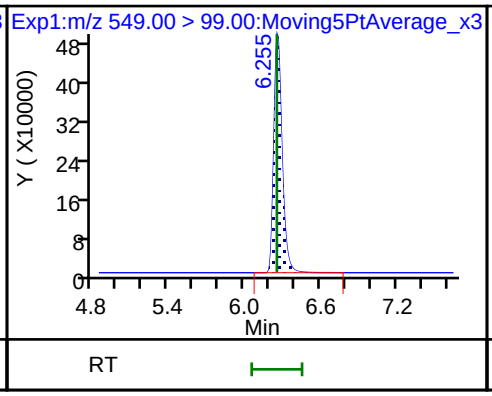
67 9ClFOS



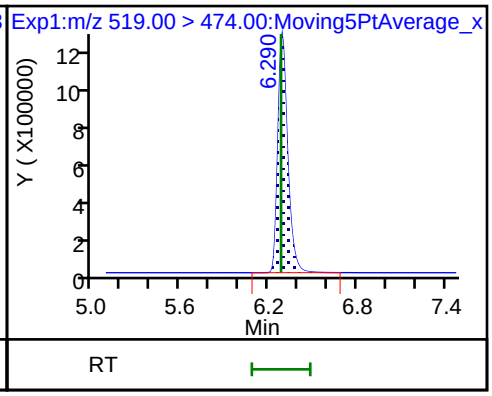
68 Perfluorononanesulfonic acid



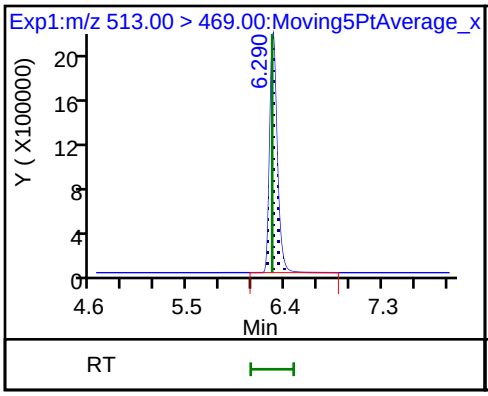
68 Perfluorononanesulfonic acid



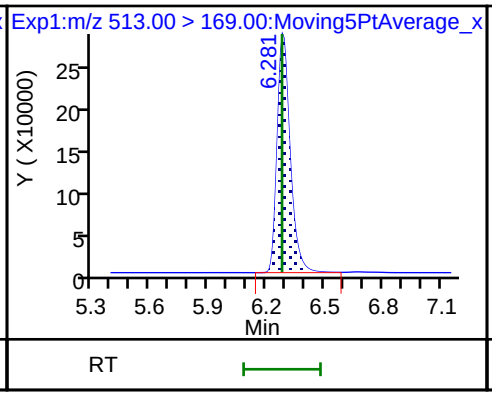
D 71 13C6 PFDA



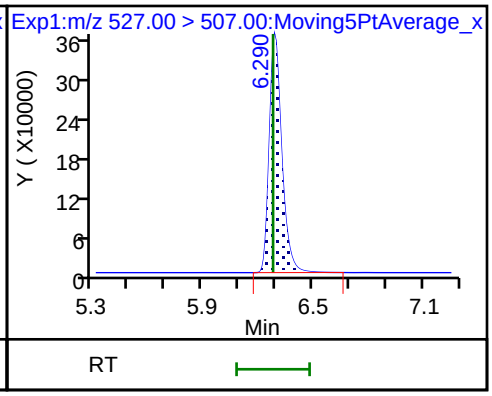
69 Perfluorodecanoic acid



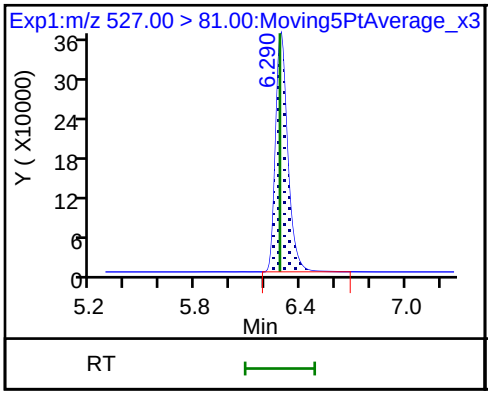
69 Perfluorodecanoic acid



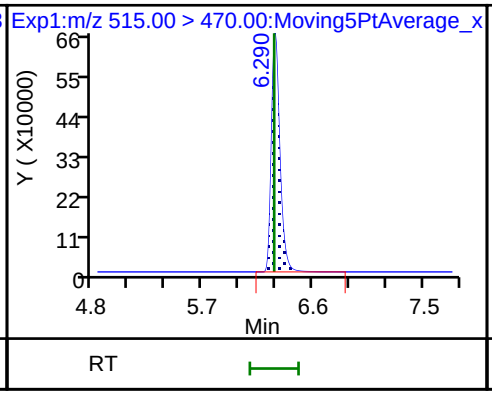
72 8:2 FTS



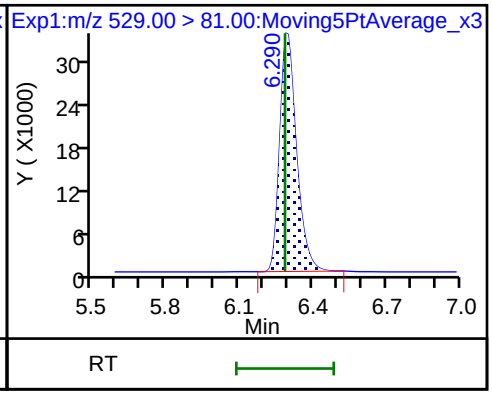
72 8:2 FTS



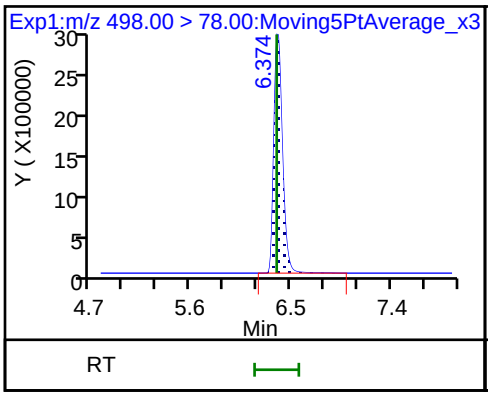
* 70 13C2 PFDA



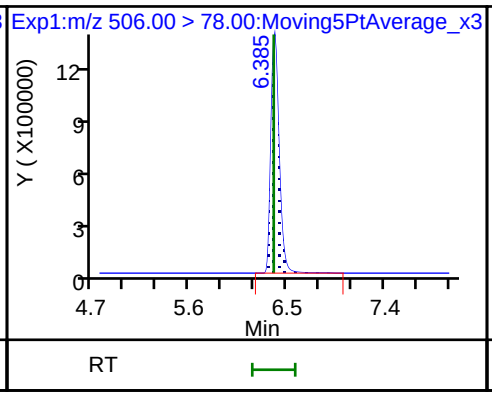
D 73 M2-8:2 FTS



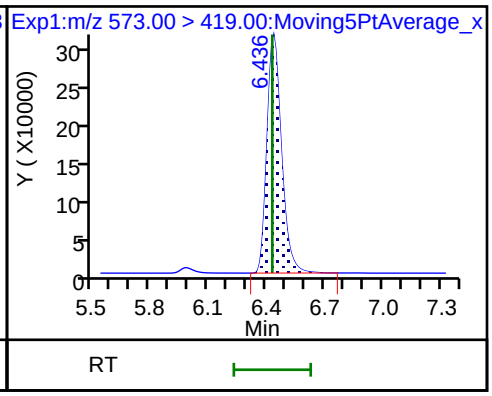
75 Perfluorooctanesulfonamide



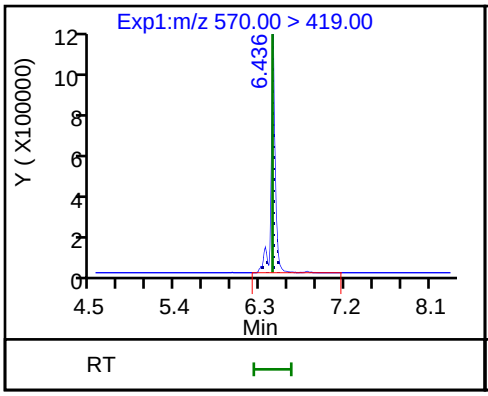
D 74 13C8 FOSA



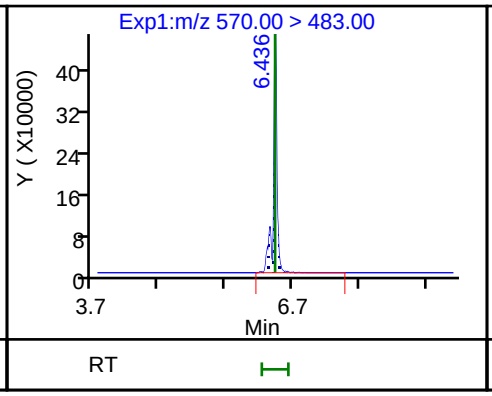
D 77 d3-NMeFOSAA



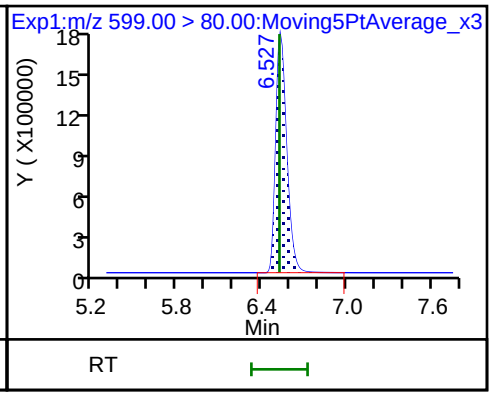
76 NMeFOSAA



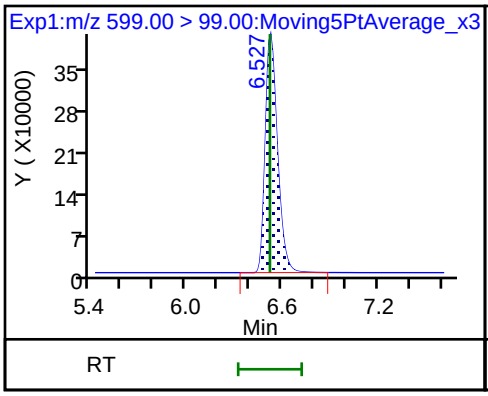
76 NMeFOSAA



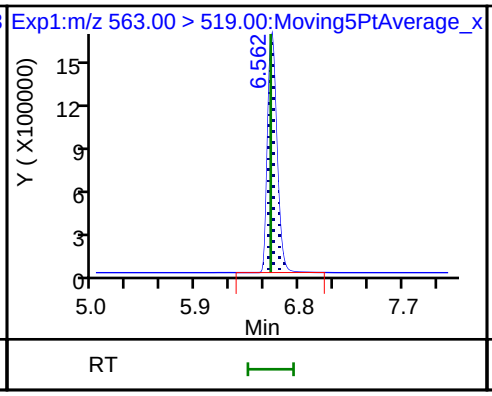
78 Perfluorodecanesulfonic acid



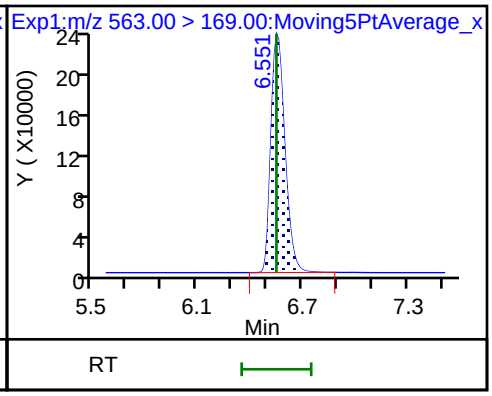
78 Perfluorodecanesulfonic acid



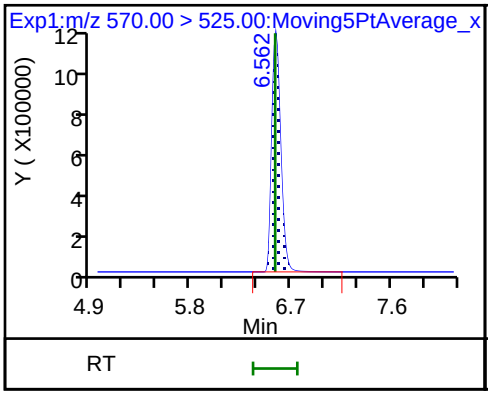
79 Perfluoroundecanoic acid



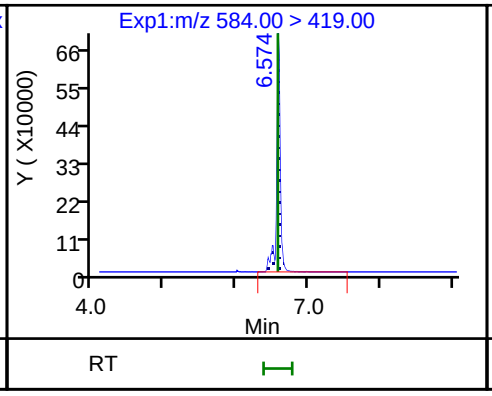
79 Perfluoroundecanoic acid



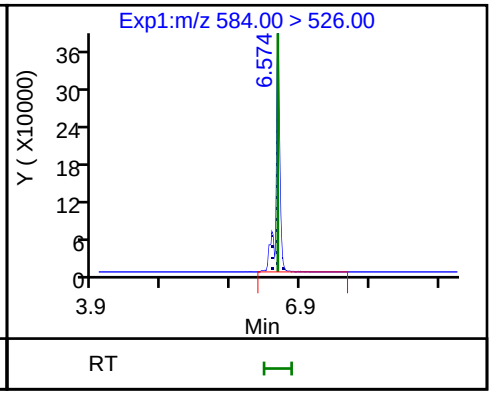
D 80 13C7 PFUnA



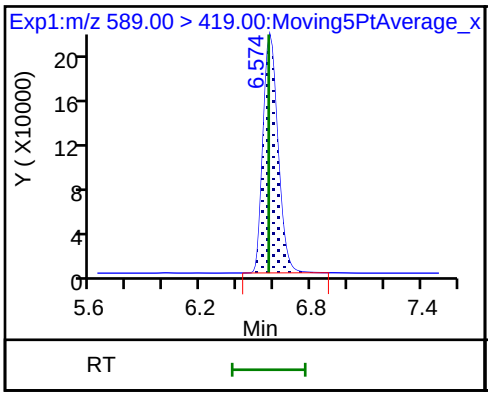
82 NEtFOSAA



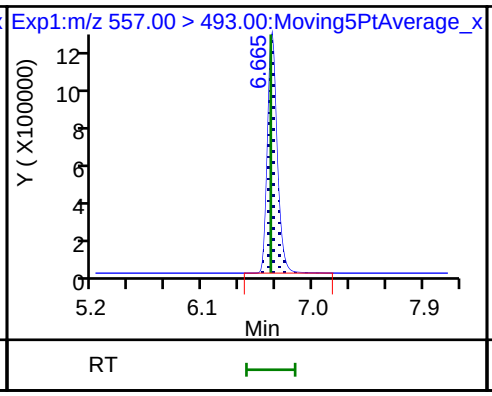
82 NEtFOSAA



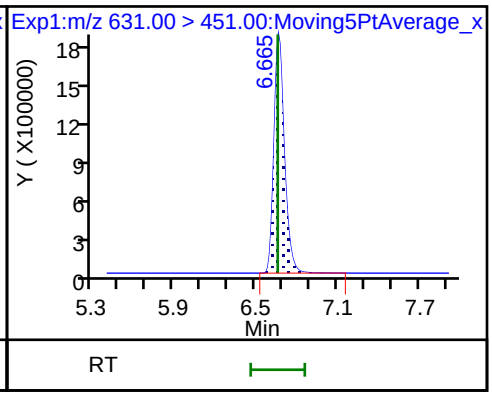
D 81 d5-NEtFOSAA



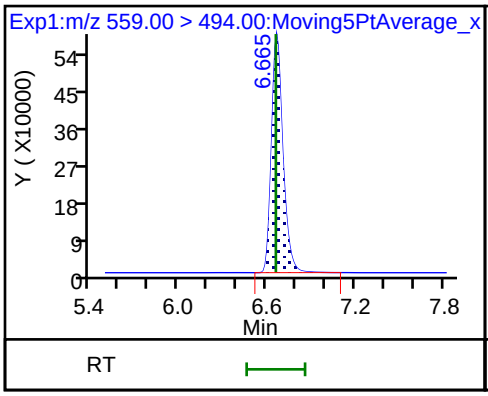
83 10:2 FTUCA



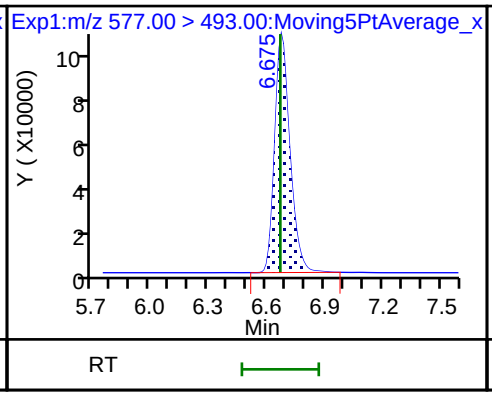
84 11ClFOS



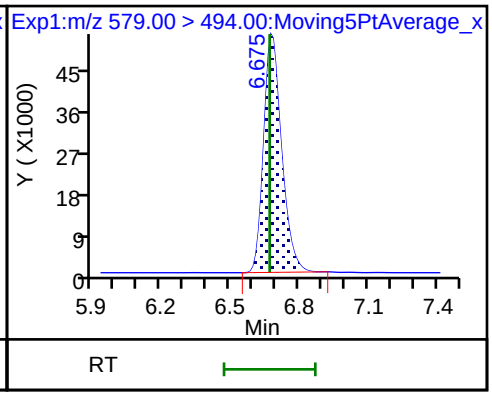
D 85 13C-10:2 FTUCA



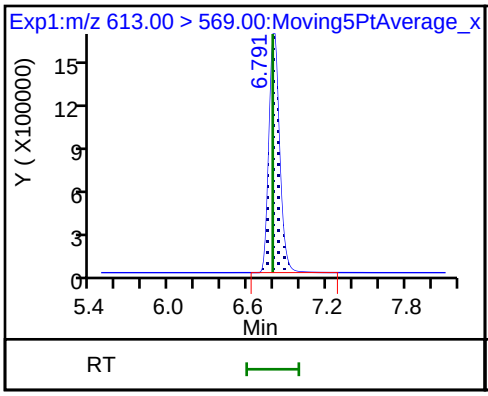
86 10:2 FTCA



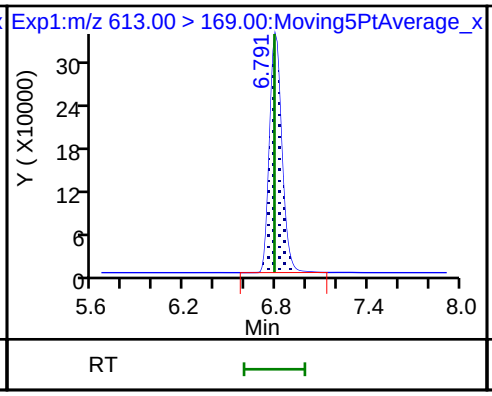
D 87 13C-10:2 FTCA



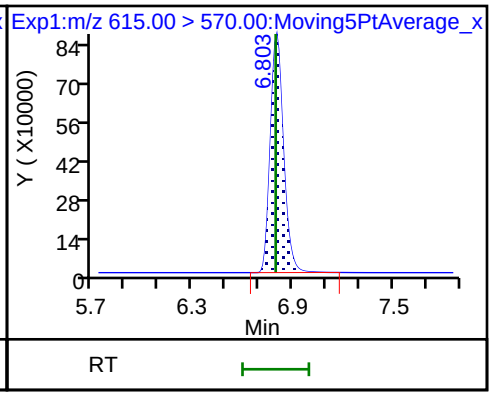
88 Perfluorododecanoic acid



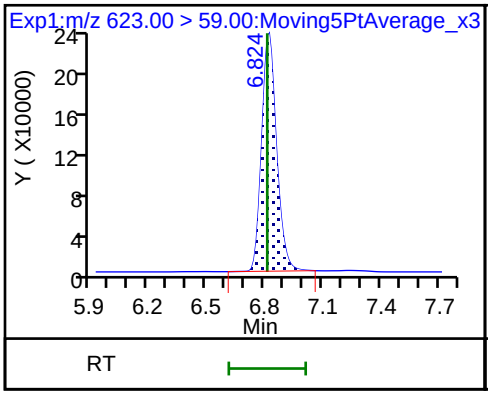
88 Perfluorododecanoic acid



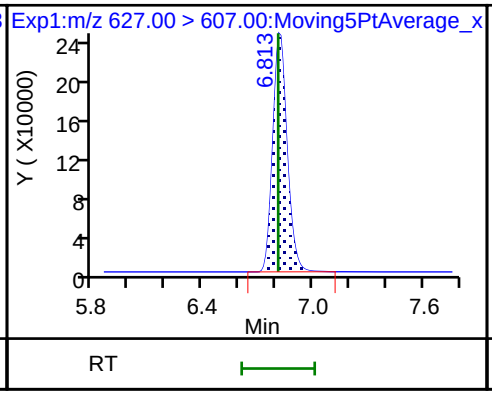
D 89 13C2-PFDoDA



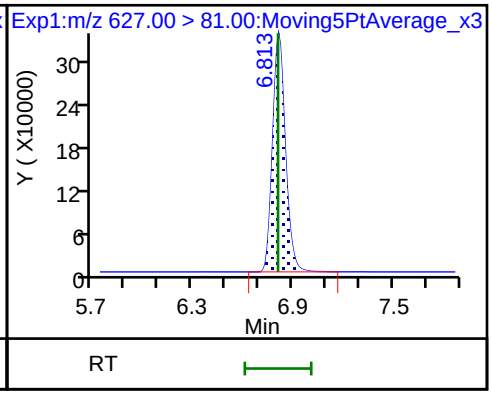
D 91 d7-N-MeFOSE-M



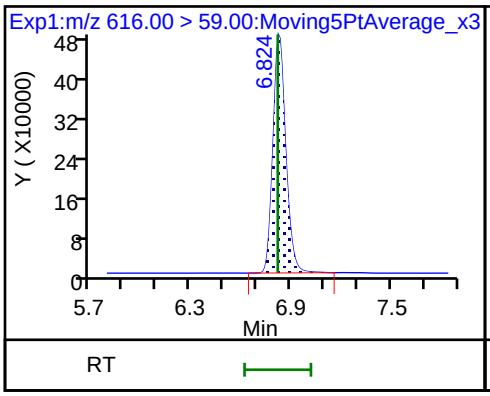
90 10:2 FTS



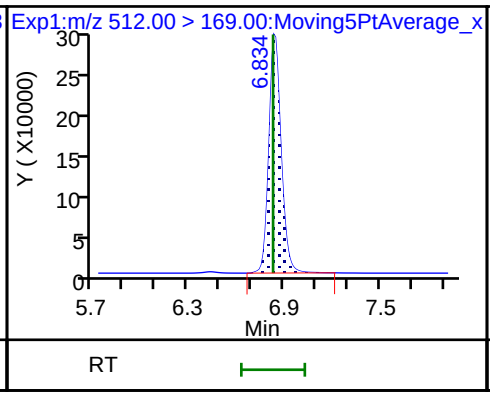
90 10:2 FTS



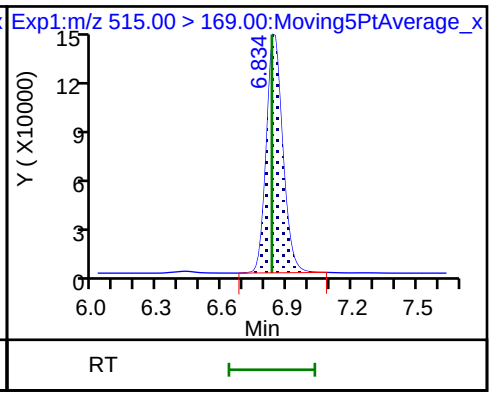
92 N-MeFOSE-M



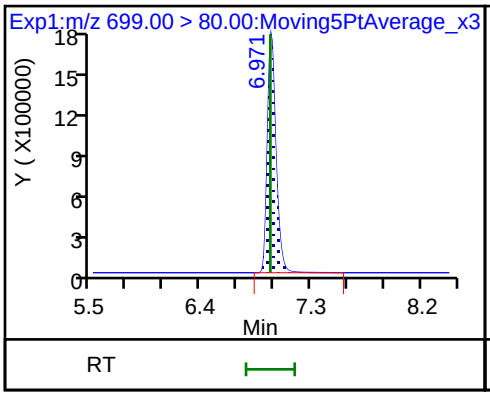
94 NMeFOSA



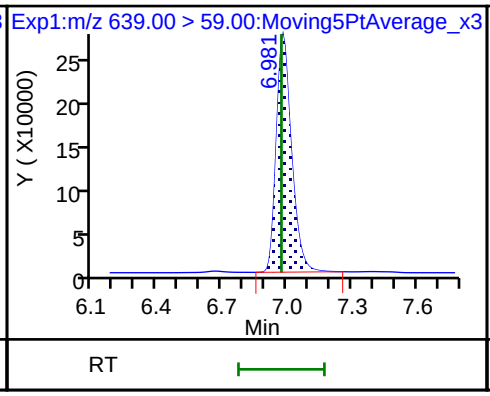
D 93 d3-NMePFOSA



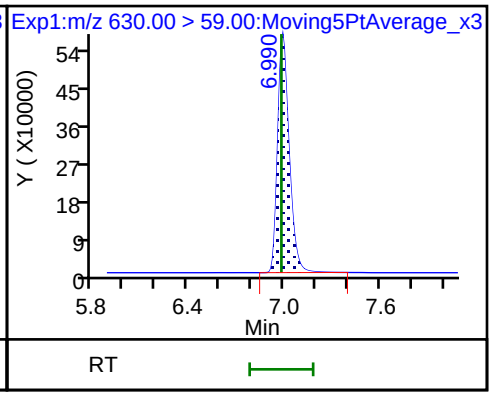
95 PFDoS



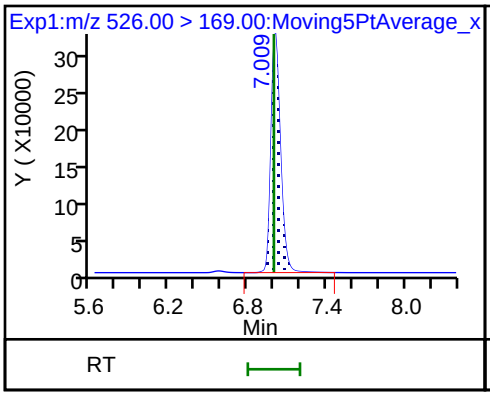
D 96 d9-N-EtFOSE-M



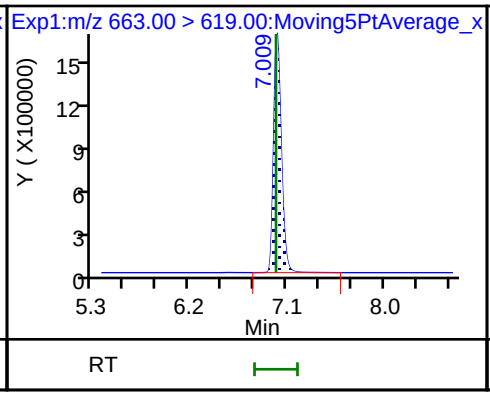
97 N-EtFOSE-M



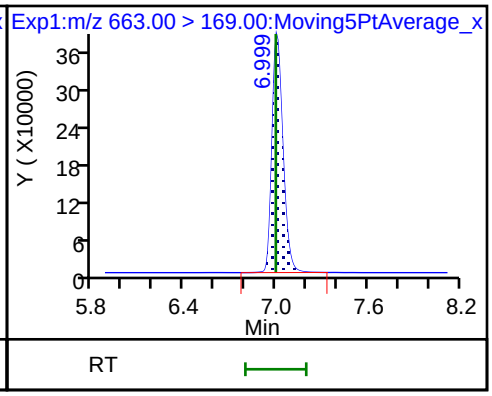
100 N-EtFOSA-M



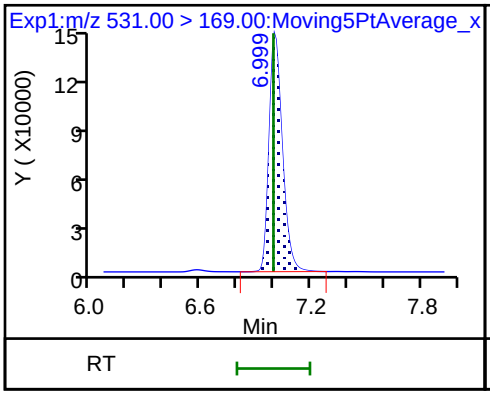
99 Perfluorotridecanoic acid



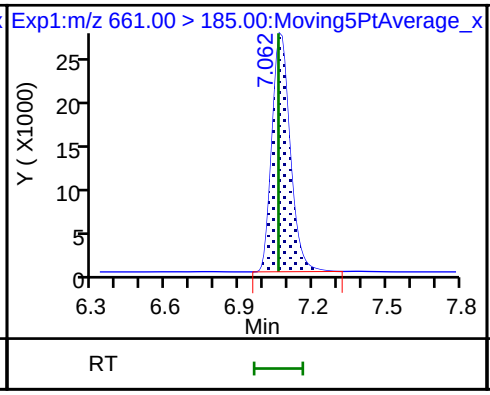
99 Perfluorotridecanoic acid



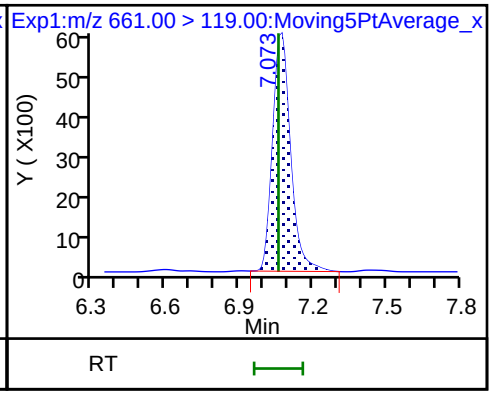
D 98 d5-NEtPFOSA



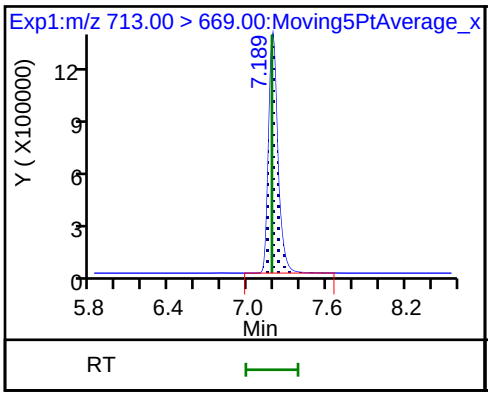
105 HFPOTeA



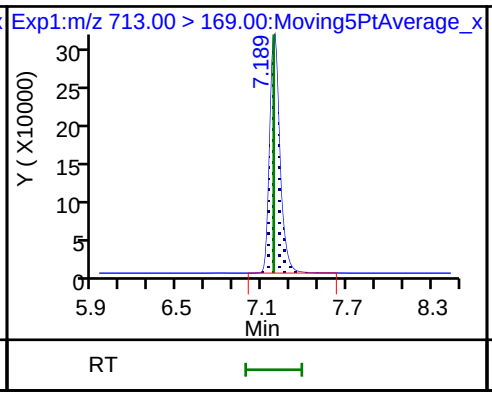
105 HFPOTeA



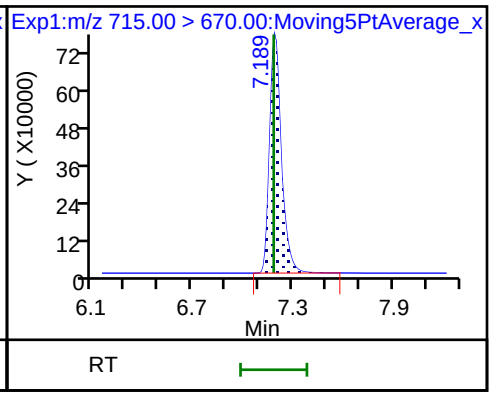
101 Perfluorotetradecanoic acid



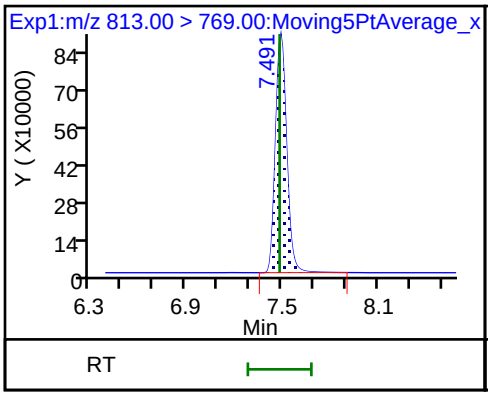
101 Perfluorotetradecanoic acid



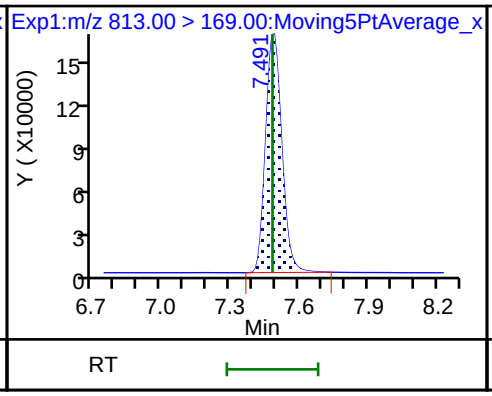
D 102 13C2 PFTeDA



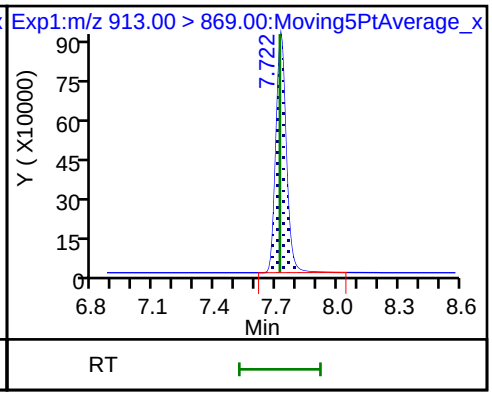
103 Perfluorohexadecanoic acid



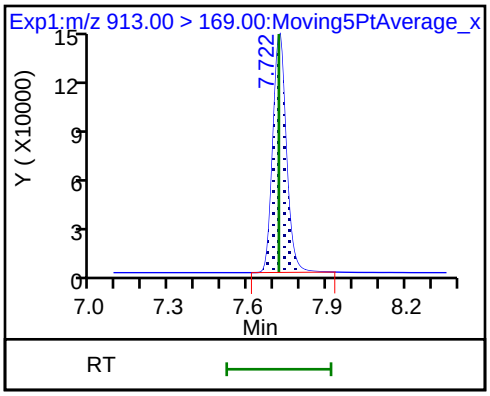
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Peak Asymmetry Report

Eurofins Lancaster Laboratories Env, LLC

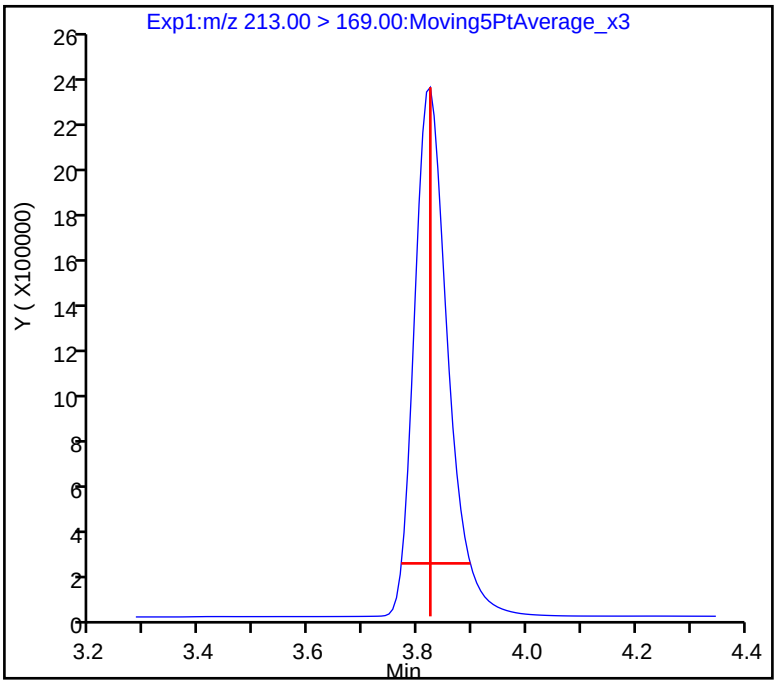
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-05.d				
Injection Date:	01-Mar-2022 21:59:40	Instrument ID:	30728		
Lims ID:	ICISAV CAL 5				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20006	Worklist Smp#:	5
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		

7 Perfluorobutanoic acid, Detector: EXP1

Peak Asymmetry =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.074 (min.)
Front Width = 0.053 (min.)

Asymmetry = 1.4



Peak Asymmetry Report

Eurofins Lancaster Laboratories Env, LLC

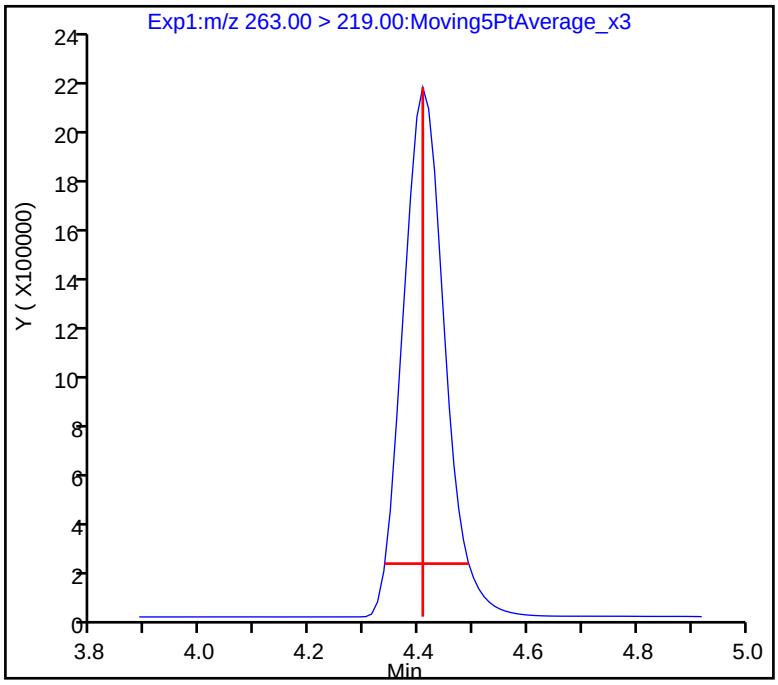
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-05.d				
Injection Date:	01-Mar-2022 21:59:40	Instrument ID:	30728		
Lims ID:	ICISAV CAL 5				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20006	Worklist Smp#:	5
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		

16 Perfluoropentanoic acid, Detector: EXP1

Peak Asymmetry =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.084 (min.)
Front Width = 0.070 (min.)

Asymmetry = 1.2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-06.d
Lims ID: IC CAL 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 01-Mar-2022 22:10:47 ALS Bottle#: 20007 Worklist Smp#: 6
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL 6
Misc. Info.: Plate: 1 Rack: 1 410-0051412-006
Operator ID: US19_USR_INS20261 Instrument ID: 30728
Sublist: chrom-PFAS_30728_XList*sub16

Method: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 01-Mar-2022 23:54:10 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1606

First Level Reviewer: polaskia Date: 01-Mar-2022 23:26:01
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.066	1.065	0.001	0.279	10081887	47.7		97.4	52760	
1 MTP										
175.00 > 97.00	1.514	1.518	-0.004	0.397	4012878	52.4		105	99889	
2 PPF Acid										
163.00 > 119.00	1.879	1.874	0.005	0.493	18950843	51.1		102	51805	
3 PFMOAA										
179.00 > 85.00	2.891	2.891	0.0	0.758	16306052	51.5		103	155025	
4 R-PSDA										
441.00 > 241.00	3.793	3.792	0.001	0.850	1367455	51.5		103	105620	
5 R-EVE										
405.00 > 217.00	3.793	3.793	0.0	0.995	3733999	51.8		104	212344	
D 6 13C4 PFBA										
217.00 > 172.00	3.814	3.816	-0.002	0.998	7917637	9.90		99.0	182573	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.814	3.816	-0.002	1.000	32989605	48.4		96.8	117721	
* 8 13C3-PFBA										
216.00 > 172.00	3.821	3.817	0.004		3701064	5.00			9881	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.821	3.817	0.004	0.856	5128271	50.6		101	239084	
10 PMPA										
229.00 > 185.00	3.953	3.956	-0.003	1.036	21128809	52.3		105	378875	
11 PFPrS										
249.00 > 99.00	4.024	4.020	0.004	1.055	8882804	48.9		107	361437	
12 NVHOS										
297.00 > 135.00	4.063	4.060	0.003	0.911	9083283	51.5		103	361291	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 PFECA F										
229.00 > 85.00	4.083	4.082	0.001	1.070	36874436	49.1		98.2	13699	
14 PFO2HxA										
245.00 > 85.00	4.290	4.286	0.004	1.125	15888760	53.3		107	493282	
D 17 13C5 PFPeA										
268.00 > 223.00	4.405	4.404	0.001	1.153	6323449	9.76		97.6	146859	
15 3:3 FTCA										
241.00 > 177.00	4.405	4.403	0.002	1.000	2564425	51.3		103	154174	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.405	4.404	0.001	1.000	36485733	49.7		99.4	193548	
D 19 13C3 PFBS										
302.00 > 80.00	4.462	4.462	0.0	1.168	6097979	9.31		100	320118	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.462	4.460	0.002	1.000	28116745	44.3	Target=3.14	100	144421	
299.00 > 99.00	4.462	4.460	0.002	1.000	9019461		3.12(1.57-4.71)	100	126905	
20 PEPA										
279.00 > 235.00	4.517	4.517	0.0	1.184	7191202	50.9		102	162996	
21 PFECA A										
279.00 > 85.00	4.546	4.543	0.003	1.019	35016792	52.4		105	714386	
22 PES										
315.00 > 135.00	4.646	4.638	0.008	1.041	84039664	44.8		101	5947034	
23 PFECA B										
201.00 > 85.00	4.776	4.771	0.005	1.070	50694364	49.3	Target=1.81	98.5	128146	
295.00 > 201.00	4.776	4.771	0.005	1.070	28917768		1.75(0.90-2.71)	98.5	1494010	
110 FBSA										
299.00 > 78.00	4.795	4.792	0.003	1.075	1610509	49.7		99.5	108129	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.805	4.806	-0.001	0.854	843106	8.15		87.3	34747	
24 4:2 FTS										
327.00 > 307.00	4.805	4.803	0.002	1.000	11007906	46.0	Target=1.33	98.5	754946	
327.00 > 81.00	4.805	4.803	0.002	1.000	8204394		1.34(0.66-1.99)	98.5	569545	
D 27 13C5 PFHxA										
318.00 > 273.00	4.845	4.846	-0.001	0.861	8043208	9.46		94.6	259023	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.845	4.843	0.002	1.000	31588583	50.7	Target=12.64	101	472321	
313.00 > 119.00	4.845	4.843	0.002	1.000	2478402		12.75(6.32-18.96)	101	121326	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.865	4.863	0.002	1.090	28386449	47.1	Target=3.66	100	1844061	
349.00 > 99.00	4.865	4.863	0.002	1.090	7861720		3.61(1.83-5.49)	100	386960	
29 PFO3OA										
311.00 > 85.00	4.904	4.903	0.001	1.286	17944660	48.9		97.9	867602	
30 HFPO-DA										
329.00 > 285.00	4.977	4.978	-0.001	0.998	12762898	50.3		101	314934	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.987	4.983	0.004	0.886	2054848	10.3		103	135366	
34 Hydro-PS Acid										
463.00 > 263.00	5.265	5.246	0.019	1.180	54125082	49.4		98.7	214174	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
32 Hydro-EVE Acid										
427.00 > 283.00	5.199	5.201	-0.002	1.363	53569269	49.2		98.4	5188684	
33 R-PSDCA										
397.00 > 217.00	5.210	5.209	0.001	1.168	79914574	49.5		98.9	3643495	
108 FBSEE										
386.00 > 166.00	5.221	5.220	0.001	1.170	1057618	30.4	Target=1.76	60.9	46663	
386.00 > 80.00	5.221	5.220	0.001	1.170	567047		1.87(0.88-2.64)	60.9	25334	
D 38 13C4 PFHpA										
367.00 > 322.00	5.254	5.255	-0.001	0.933	8318053	9.08		90.8	383985	
D 37 13C3 PFHxS										
402.00 > 80.00	5.254	5.254	0.0	0.933	5440959	9.00		95.2	339409	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.254	5.254	0.0	1.000	35855691	47.0	Target=3.54	94.1	725291	
363.00 > 169.00	5.254	5.254	0.0	1.000	10945626		3.28(1.77-5.31)	94.1	398122	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.254	5.254	0.0	1.000	25518062	45.7	Target=3.57	100	22004	
399.00 > 99.00	5.243	5.254	-0.011	0.998	6985081		3.65(1.78-5.35)	100	14742	
39 DONA										
377.00 > 251.00	5.308	5.303	0.005	1.010	47029508	48.9		103	2896098	
40 PFECA G										
379.00 > 185.00	5.318	5.322	-0.004	1.394	61178538	47.9		95.8	3850305	
41 5:3 FTCA										
341.00 > 237.00	5.340	5.338	0.002	1.016	7581472	53.3	Target=3.04	107	477712	
341.00 > 217.00	5.340	5.338	0.002	1.016	2531875		2.99(1.52-4.55)	107	118964	
42 6:2 FTUCA										
357.00 > 293.00	5.359	5.359	0.0	1.000	26578168	47.4		94.8	577632	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.359	5.361	-0.002	0.952	4525395	9.05		90.5	149675	
44 6:2 FTCA										
377.00 > 293.00	5.377	5.378	-0.001	1.000	3863708	50.5		101	158166	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.377	5.379	-0.002	0.955	740010	9.40		94.0	50763	
46 PFO4DA										
377.00 > 85.00	5.436	5.435	0.001	1.425	22347583	50.1		100	1261	
47 PS Acid										
443.00 > 147.00	5.479	5.479	0.0	1.228	17012715	43.7		87.4	1204833	
48 EVE Acid										
407.00 > 263.00	5.498	5.500	-0.002	1.441	46664123	41.7		83.4	3195376	
49 PFECHS										
461.00 > 381.00	5.567	5.569	-0.002	1.060	36021806	48.0	Target=1.56	104	2458958	
461.00 > 99.00	5.567	5.569	-0.002	1.060	25187389		1.43(0.78-2.34)	104	1747286	
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.619	5.618	0.001	1.070	26068679	47.1	Target=3.73	99.0	1750071	
449.00 > 99.00	5.610	5.618	-0.008	1.068	7220587		3.61(1.87-5.60)	99.0	370614	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.610	5.614	-0.004	0.997	309418	8.36		88.0	20260	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
50 6:2 FTS										
427.00 > 407.00	5.610	5.613	-0.003	1.000	5747542	48.5	Target=1.19	102	380463	
427.00 > 81.00	5.610	5.613	-0.003	1.000	4965826		1.16(0.60-1.79)	102	144040	
D 54 13C8 PFOA										
421.00 > 376.00	5.628	5.631	-0.003	1.000	8206552	9.15		91.5	327998	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.628	5.630	-0.002	1.000	31077456	50.7	Target=2.20	101	2589906	
413.00 > 169.00	5.628	5.630	-0.002	1.000	14820901		2.10(1.10-3.30)	101	5253038	
* 55 13C2 PFOA										
415.00 > 370.00	5.628	5.631	-0.003		3665083	5.00			185662	
106 FHxSA										
399.00 > 78.00	5.687	5.691	-0.004	1.082	1952477	53.2		106	94582	
56 TAF										
443.00 > 85.00	5.879	5.879	0.0	1.542	21525553	51.0		102	62715	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.953	5.954	-0.001	1.000	29243258	47.7	Target=4.38	103	6563	
499.00 > 99.00	5.953	5.954	-0.001	1.000	6245807		4.68(2.19-6.58)	103	13514	
D 58 13C8 PFOS										
507.00 > 80.00	5.953	5.955	-0.002	1.000	5991956	9.37		98.0	22740	
* 59 13C4 PFOS										
503.00 > 80.00	5.953	5.955	-0.002		3155759	4.78			166594	
D 60 13C9 PFNA										
472.00 > 427.00	5.970	5.975	-0.005	1.003	6298488	10.1		101	332920	
61 Perfluorononanoic acid										
463.00 > 419.00	5.970	5.973	-0.003	1.000	26526068	48.3	Target=3.95	96.7	798667	
463.00 > 169.00	5.970	5.973	-0.003	1.000	7096853		3.74(1.97-5.92)	96.7	496611	
109 HFPO-TrA										
496.00 > 185.00	6.070	6.068	0.002	1.217	209620	67.3		84.2	13666	
62 7:3 FTCA										
441.00 > 337.00	6.070	6.077	-0.007	1.129	8838442	49.2		98.4	578391	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.079	6.085	-0.006	0.968	4316597	9.37		93.7	121655	
63 8:2 FTUCA										
457.00 > 393.00	6.079	6.084	-0.005	1.000	20431232	50.2		100	1341317	
65 8:2 FTCA										
477.00 > 393.00	6.099	6.099	0.0	1.000	2516514	48.7		97.3	125543	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.099	6.102	-0.003	0.971	518045	10.0		100.0	35053	
67 9ClFOS										
531.00 > 351.00	6.129	6.130	-0.001	1.030	40047487	45.5		97.8	2026224	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.244	6.254	-0.010	1.049	29539563	48.6	Target=4.33	101	2138794	
549.00 > 99.00	6.244	6.254	-0.010	1.049	6947268		4.25(2.16-6.49)	101	379959	
D 71 13C6 PFDA										
519.00 > 474.00	6.278	6.282	-0.004	1.000	7246967	10.1		101	512976	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
69 Perfluorodecanoic acid										
513.00 > 469.00	6.270	6.279	-0.009	0.999	29575928	48.5	Target=7.98	97.1	891278	
513.00 > 169.00	6.270	6.279	-0.009	0.999	4121853		7.18(3.99-11.97)	97.1	38799	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.278	6.285	-0.007	1.000	187772	10.0		105	12973	
72 8:2 FTS										
527.00 > 507.00	6.278	6.282	-0.004	1.000	4913845	44.1	Target=1.01	92.1	344564	
527.00 > 81.00	6.278	6.282	-0.004	1.000	5228969		0.94(0.50-1.51)	92.1	276529	
* 70 13C2 PFDA										
515.00 > 470.00	6.278	6.282	-0.004		3776655	5.00			267920	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.361	6.371	-0.010	0.998	48079751	50.8		102	2303985	
D 74 13C8 FOSA										
506.00 > 78.00	6.372	6.375	-0.003	1.015	9534597	10.2		102	456049	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.424	6.428	-0.004	1.023	2230437	11.0		110	6248	
76 NMeFOSAA										
570.00 > 419.00	6.424	6.430	-0.006	1.000	9338815	47.5	Target=1.69	94.9	2846853	
570.00 > 483.00	6.424	6.430	-0.006	1.000	5700973		1.64(0.85-2.54)	94.9	10976	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.514	6.522	-0.008	1.094	30698379	51.3	Target=4.28	106	1936596	
599.00 > 99.00	6.514	6.522	-0.008	1.094	7071800		4.34(2.14-6.42)	106	267114	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.548	6.550	-0.002	1.000	28168263	50.8	Target=7.28	102	555505	
563.00 > 169.00	6.537	6.550	-0.014	0.998	4164542		6.76(3.64-10.92)	102	189077	
D 80 13C7 PFUnA										
570.00 > 525.00	6.548	6.557	-0.009	1.043	7449660	9.76		97.6	331981	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.560	6.569	-0.009	1.045	1457394	10.1		101	64615	
82 NEtFOSAA										
584.00 > 419.00	6.560	6.570	-0.010	1.000	7036868	50.3	Target=1.63	101	729466	
584.00 > 526.00	6.560	6.570	-0.010	1.000	4245413		1.66(0.82-2.45)	101	2792	
83 10:2 FTUCA										
557.00 > 493.00	6.652	6.654	-0.002	1.000	19571160	49.4		98.8	1180154	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.652	6.660	-0.008	1.060	4121902	10.2		102	125912	
84 11ClFOS										
631.00 > 451.00	6.652	6.660	-0.008	1.117	31253560	48.1		103	1930278	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.663	6.670	-0.007	1.061	403399	10.7		107	24287	
86 10:2 FTCA										
577.00 > 493.00	6.663	6.670	-0.007	1.000	1929995	49.2		98.4	87949	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.777	6.787	-0.010	0.998	27113592	48.8	Target=4.76	97.5	1601321	
613.00 > 169.00	6.777	6.787	-0.010	0.998	5708631		4.75(2.38-7.14)	97.5	147228	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.789	6.796	-0.007	1.081	6094459	10.5		105	366892	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
90 10:2 FTS										
627.00 > 607.00	6.801	6.810	-0.009	1.083	3793355	45.8	Target=0.75	95.1	137947	
627.00 > 81.00	6.801	6.810	-0.009	1.083	5144316		0.74(0.38-1.13)	95.1	312123	
92 N-MeFOSE-M										
616.00 > 59.00	6.811	6.820	-0.009	1.000	8135958	50.1		100	377718	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.811	6.813	-0.002	1.085	1599066	10.6		106	14104	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.822	6.829	-0.007	1.087	1076543	11.2		112	22521	
94 NMeFOSA										
512.00 > 169.00	6.822	6.829	-0.007	1.000	5434939	51.8		104	51217	
95 PFDoS										
699.00 > 80.00	6.960	6.967	-0.007	1.169	26702359	50.0		103	1836353	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.969	6.973	-0.004	1.110	1791186	10.4		104	11791	
97 N-EtFOSE-M										
630.00 > 59.00	6.979	6.981	-0.002	1.001	8756193	48.6		97.1	585224	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.988	6.995	-0.007	1.113	953933	10.7		107	21550	
100 N-EtFOSA-M										
526.00 > 169.00	6.988	6.996	-0.008	1.000	5050158	50.6		101	43568	
99 Perfluorotridecanoic acid										
663.00 > 619.00	6.988	6.996	-0.008	1.029	22499808	46.6	Target=4.11	93.3	568045	
663.00 > 169.00	6.988	6.996	-0.008	1.029	5730741		3.93(2.06-6.17)	93.3	195002	
105 HFPOTeA										
661.00 > 185.00	7.050	7.058	-0.008	1.414	252570	75.8	Target=4.76	95.7	16219	
661.00 > 119.00	7.050	7.058	-0.008	1.414	58435		4.32(2.38-7.14)	95.7	2847	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.177	7.184	-0.007	1.143	5016056	10.7		107	173593	
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.177	7.181	-0.004	1.000	20705176	46.7	Target=4.34	93.5	596286	
713.00 > 169.00	7.168	7.181	-0.013	0.999	4930948		4.20(2.17-6.50)	93.5	144186	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.479	7.483	-0.004	1.042	13894334	47.6	Target=5.44	95.1	549849	
813.00 > 169.00	7.468	7.483	-0.015	1.041	2609659		5.32(2.72-8.16)	95.1	65285	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.708	7.717	-0.009	1.074	10315834	49.1	Target=6.37	98.3	234517	
913.00 > 169.00	7.708	7.717	-0.009	1.074	1641003		6.29(3.18-9.55)	98.3	55993	

QC Flag Legend

Processing Flags

Reagents:

PFC_STD_XMOD6_00014 Amount Added: 200.00 Units: uL

Report Date: 01-Mar-2022 23:54:11 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-06.d

Injection Date: 01-Mar-2022 22:10:47 Instrument ID: 30728

Lims ID: IC CAL 6

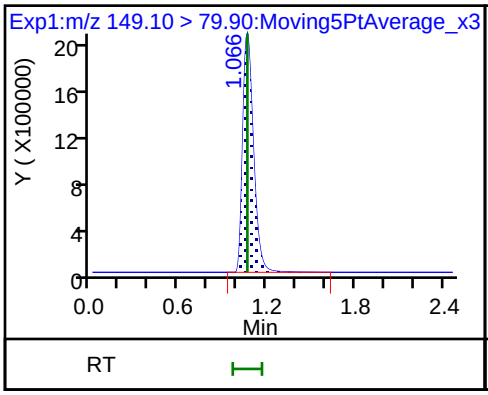
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20007 Worklist Smp#: 6

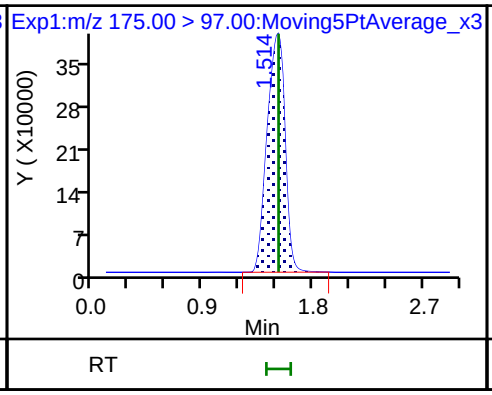
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

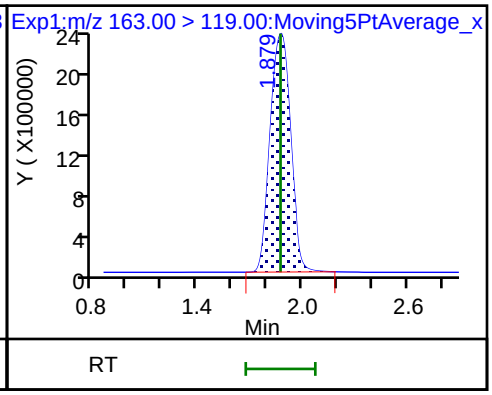
107 Sodium trifluoromethanesulfonate



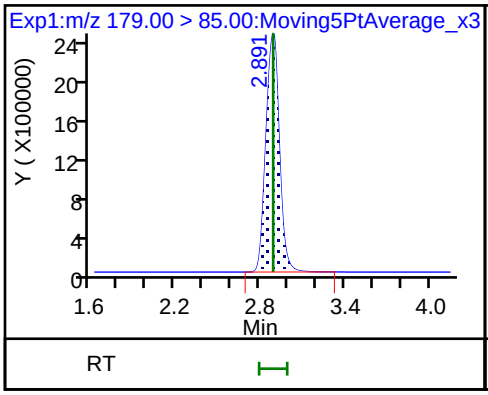
1 MTP



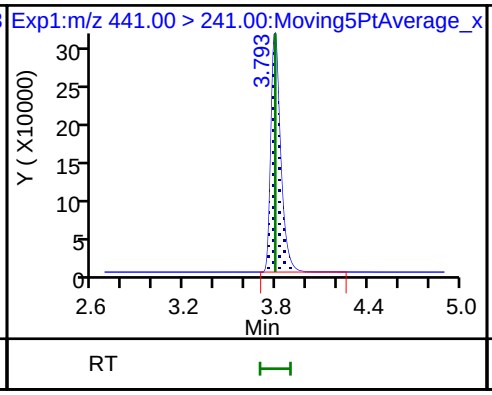
2 PPF Acid



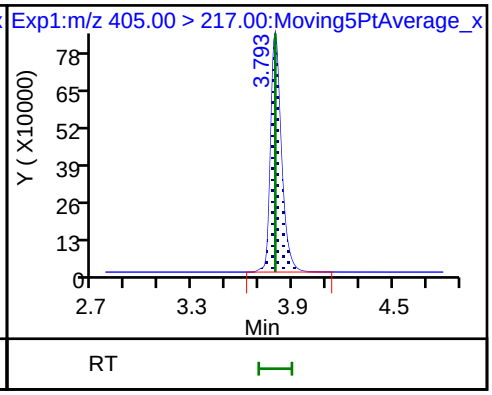
3 PFMOAA



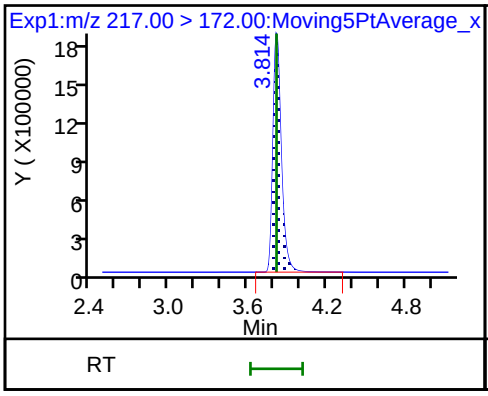
4 R-PSDA



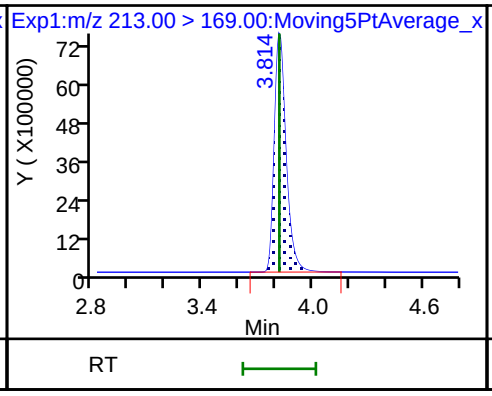
5 R-EVE



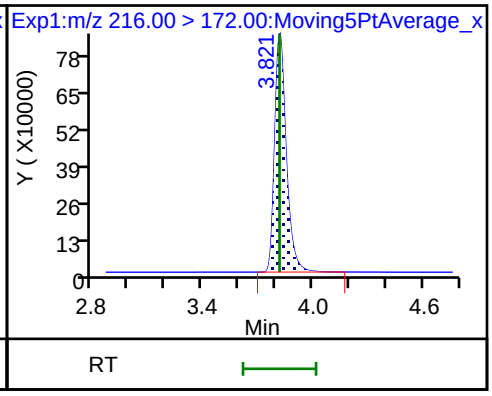
D 6 13C4 PFBA



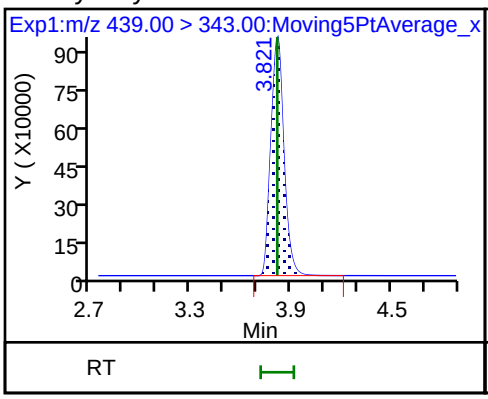
7 Perfluorobutanoic acid



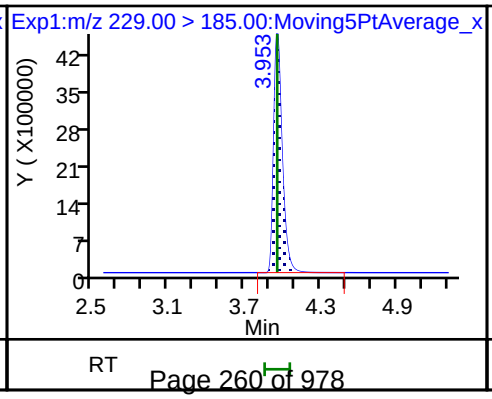
* 8 13C3-PFBA



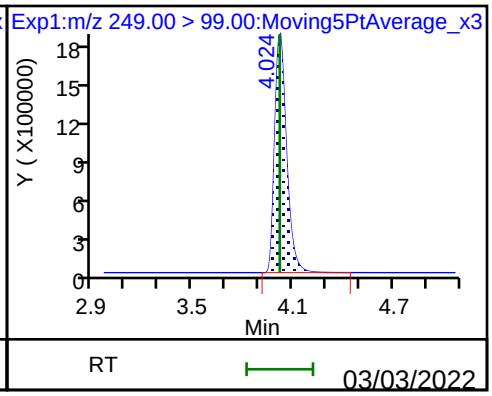
9 Hydrolyzed PSDA



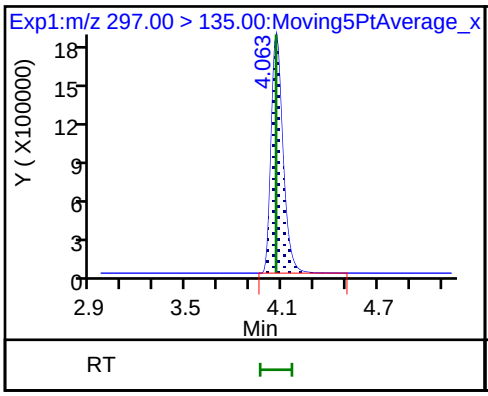
10 PMPA



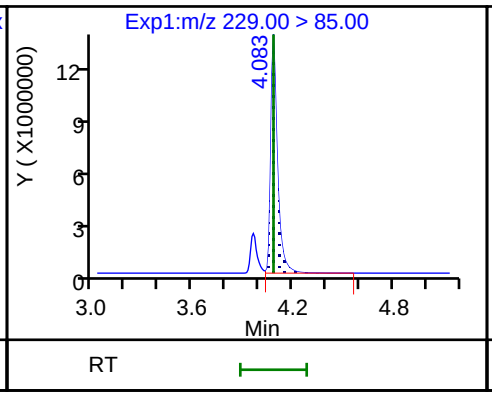
11 PFPrS



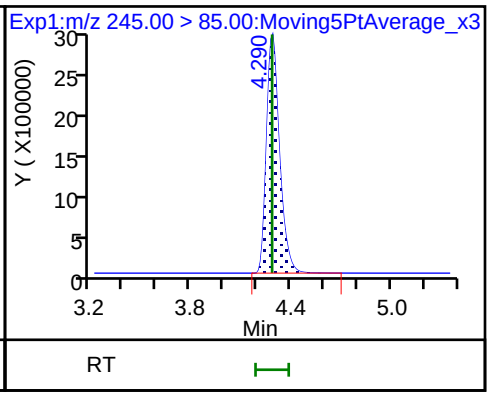
12 NVHOS



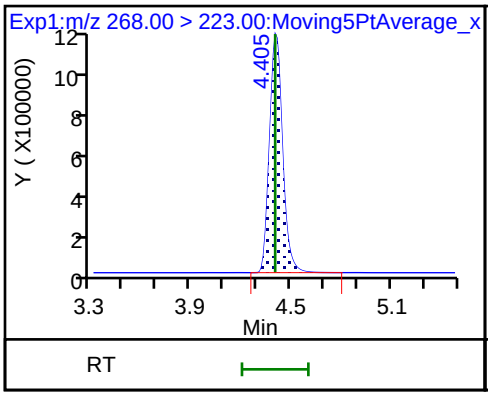
13 PFECA F



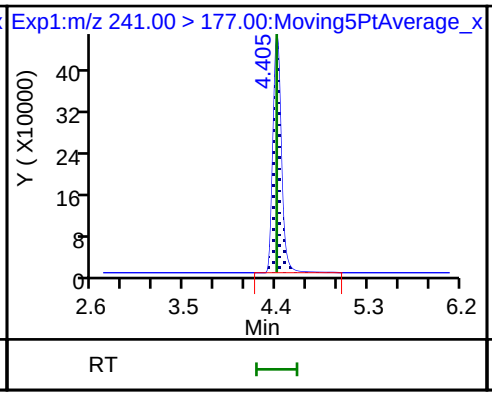
14 PFO2HxA



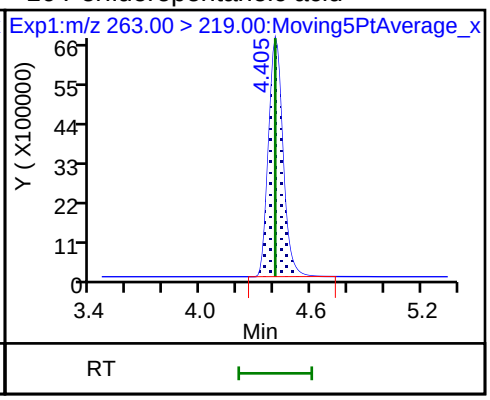
D 17 13C5 PFPeA



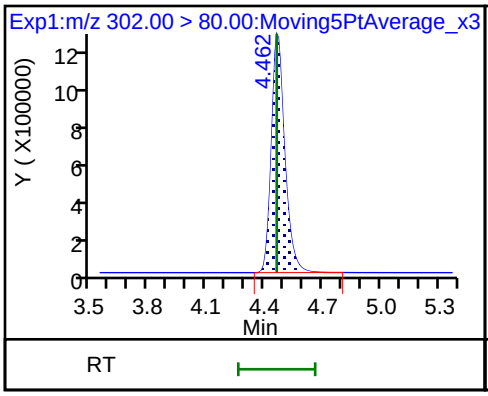
15 3:3 FTCA



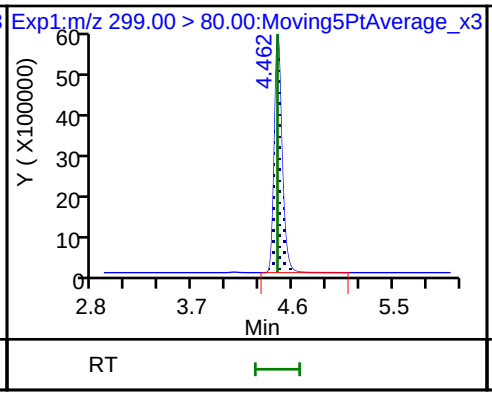
16 Perfluoropentanoic acid



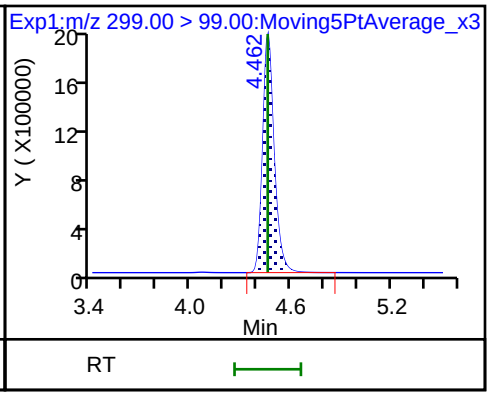
D 19 13C3 PFBS



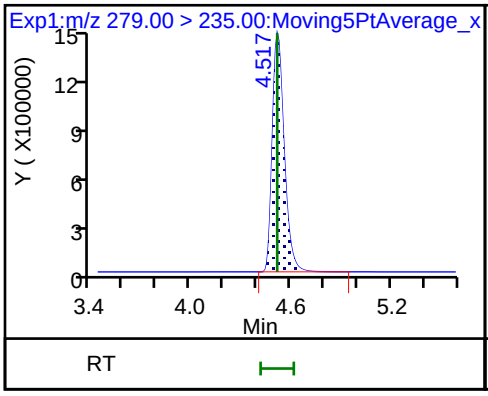
18 Perfluorobutanesulfonic acid



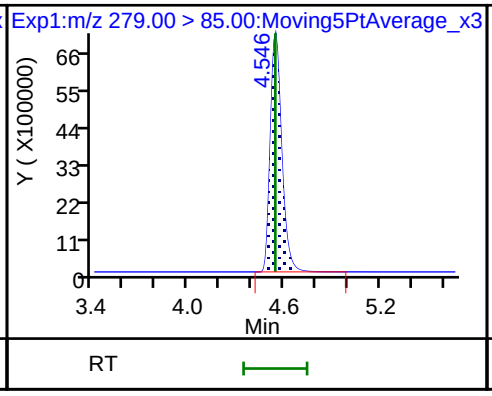
18 Perfluorobutanesulfonic acid



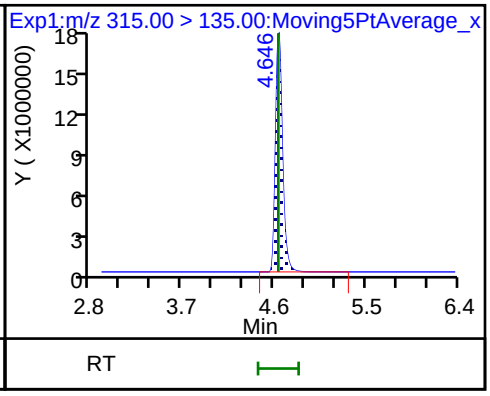
20 PEPA



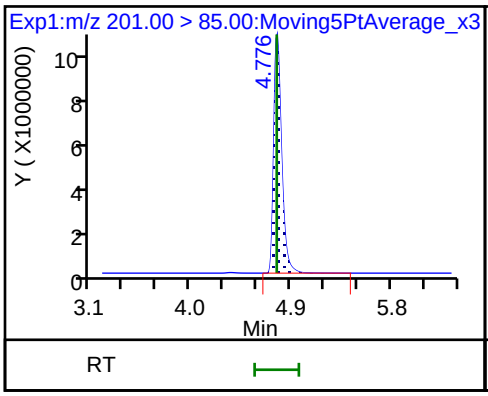
21 PFECA A



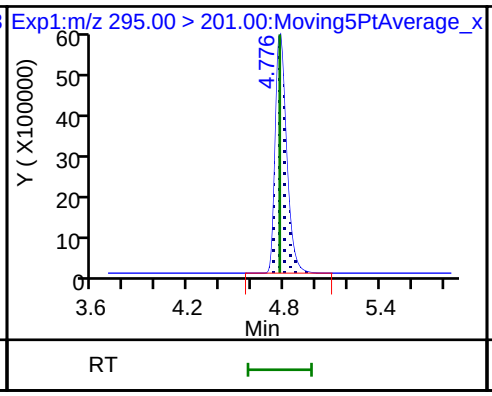
22 PES



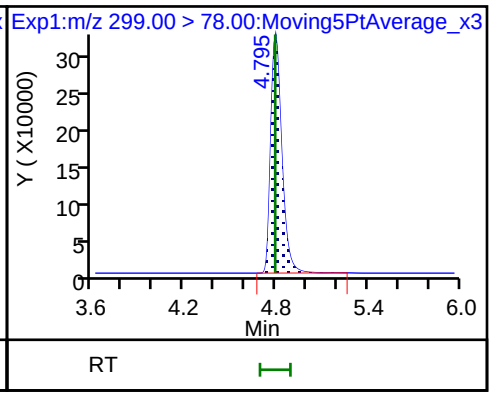
23 PFECA B



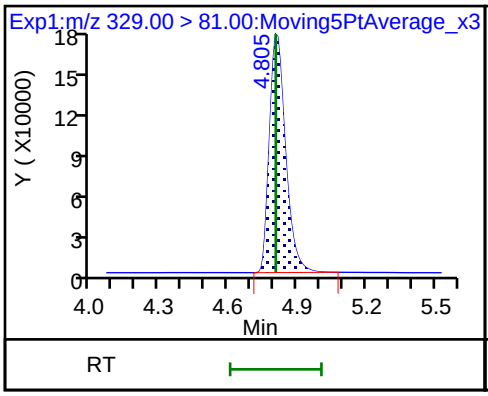
23 PFECA B



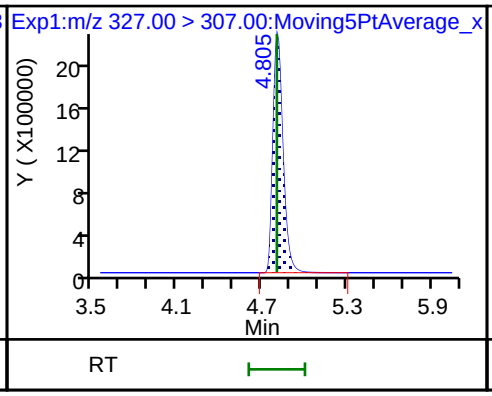
110 FBSA



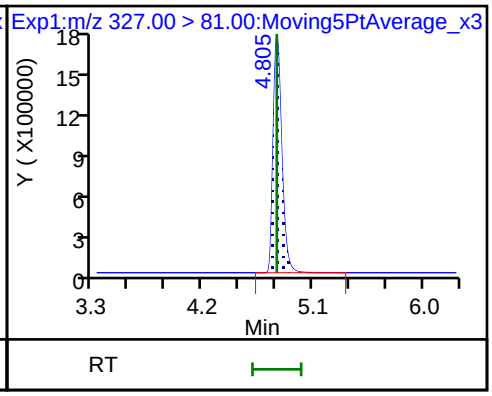
D 25 M2-4:2 FTS



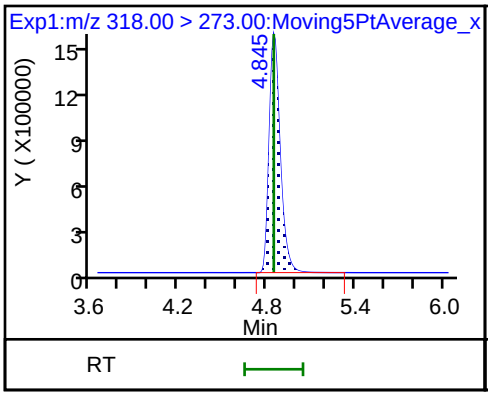
24 4:2 FTS



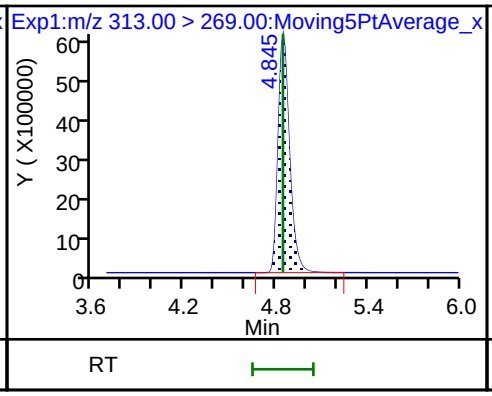
24 4:2 FTS



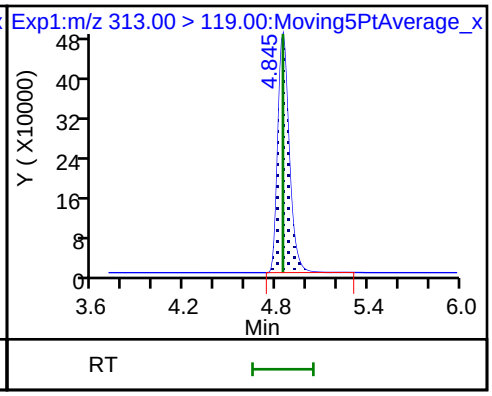
D 27 13C5 PFHxA



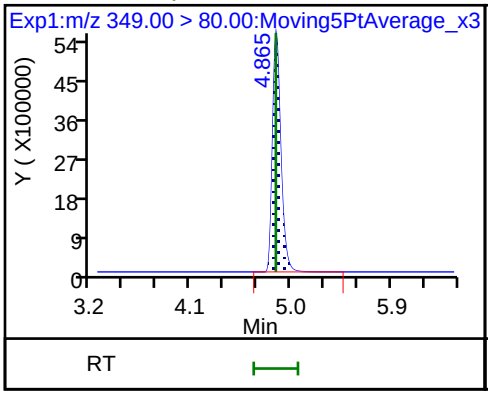
26 Perfluorohexanoic acid



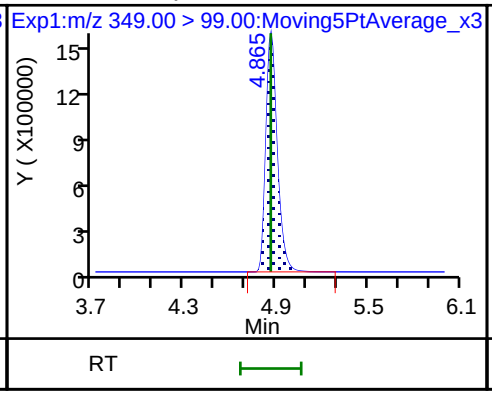
26 Perfluorohexanoic acid



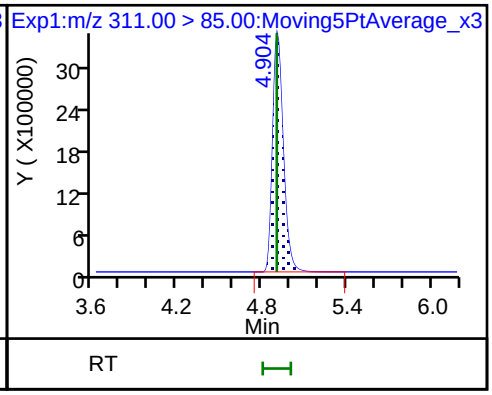
28 Perfluoropentanesulfonic acid



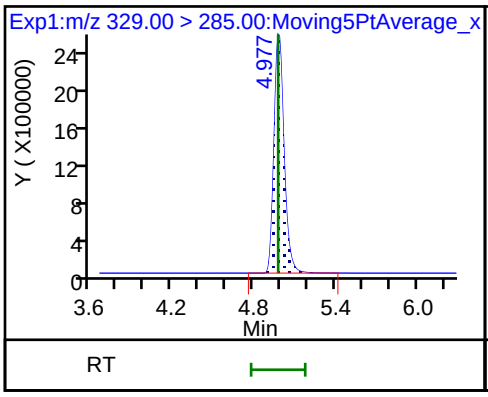
28 Perfluoropentanesulfonic acid



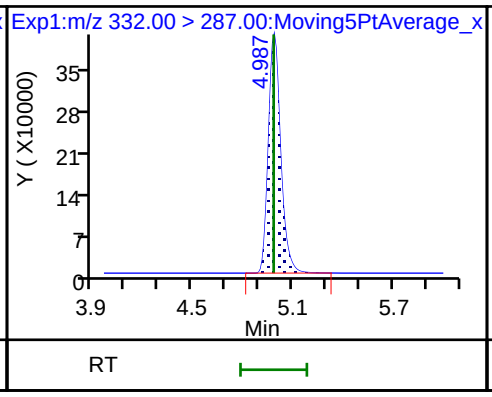
29 PFO3OA



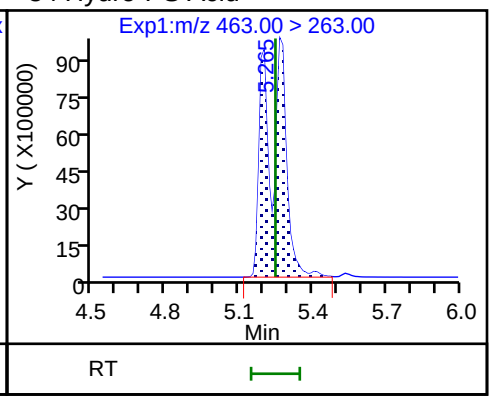
30 HFPO-DA



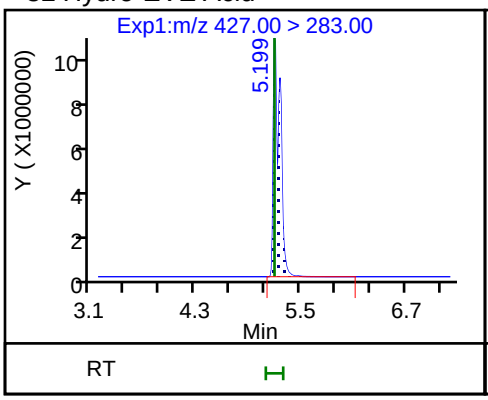
D 31 13C3 HFPO-DA



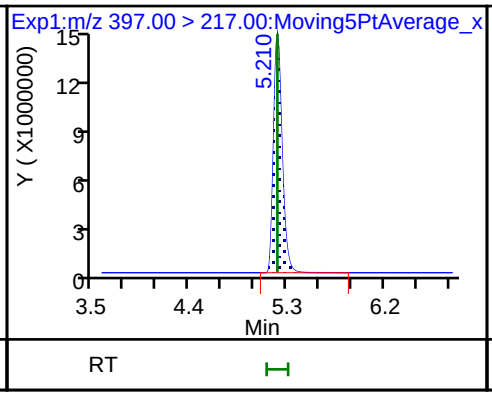
34 Hydro-PS Acid



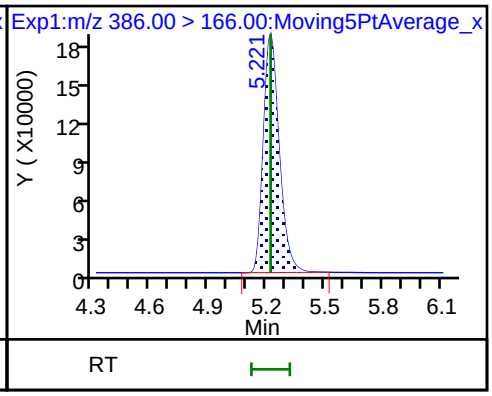
32 Hydro-EVE Acid



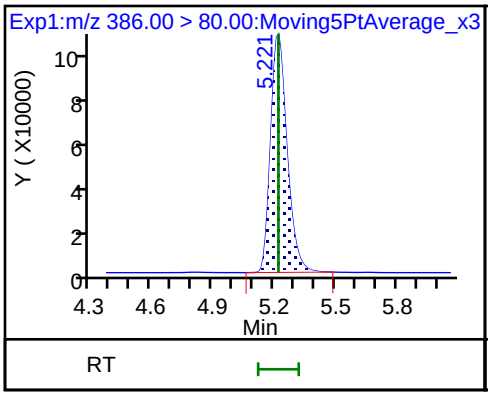
33 R-PSDCA



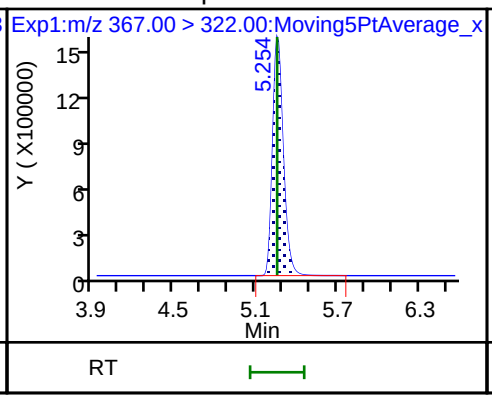
108 FBSEE



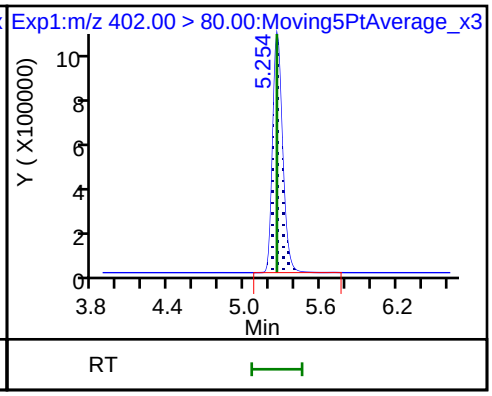
108 FBSEE



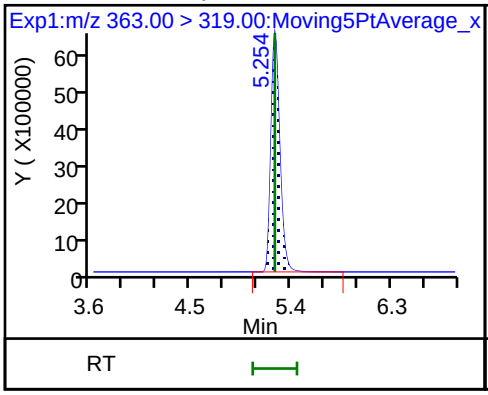
D 38 13C4 PFHpA



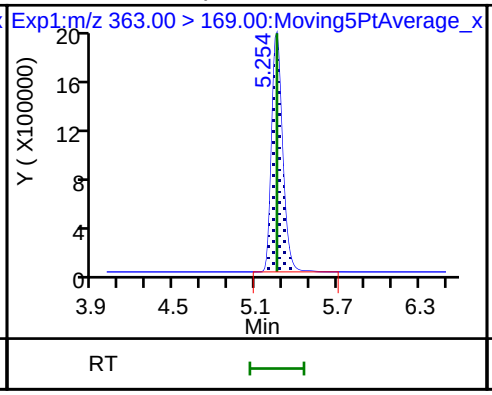
D 37 13C3 PFHxS



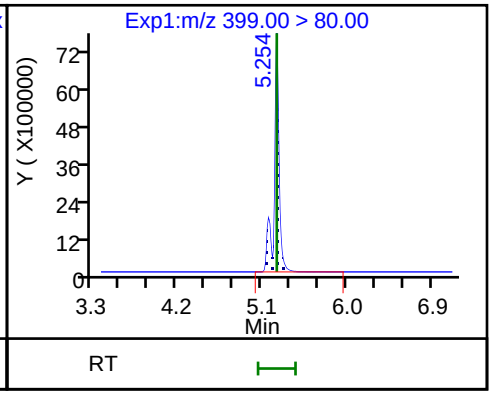
36 Perfluoroheptanoic acid



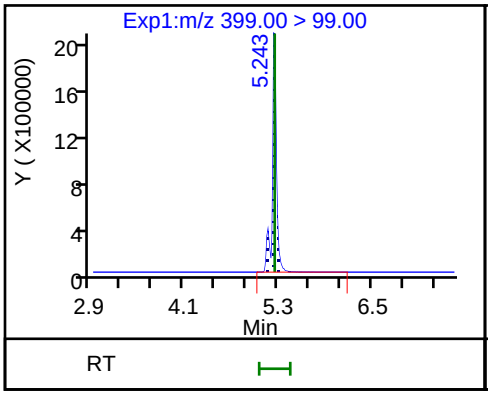
36 Perfluoroheptanoic acid



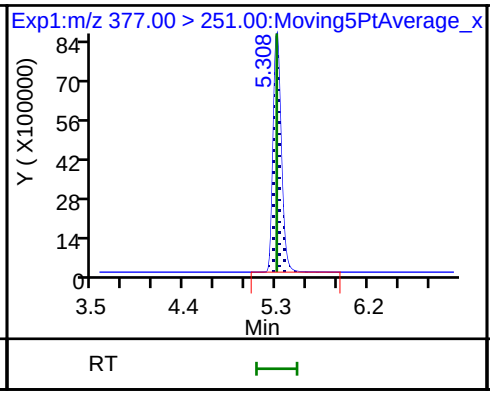
35 Perfluorohexanesulfonic acid



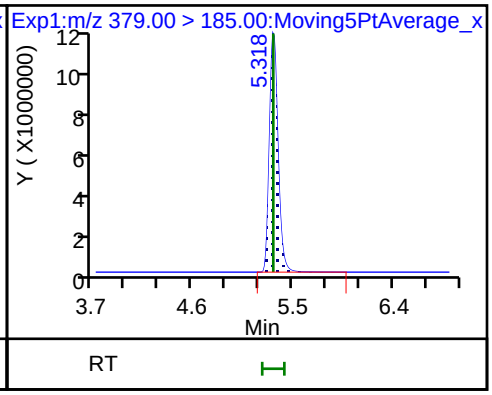
35 Perfluorohexanesulfonic acid



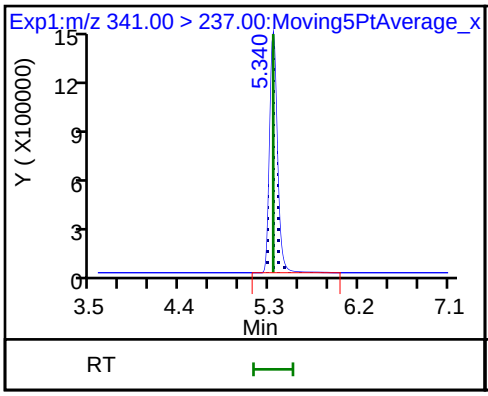
39 DONA



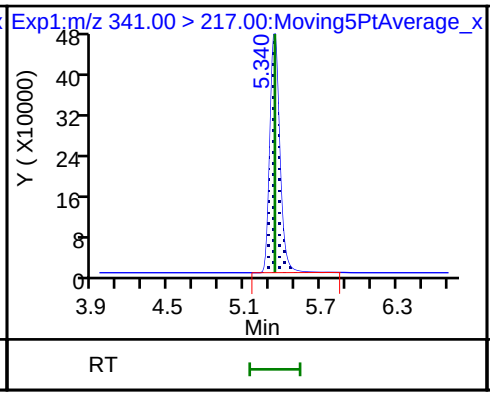
40 PFECA G



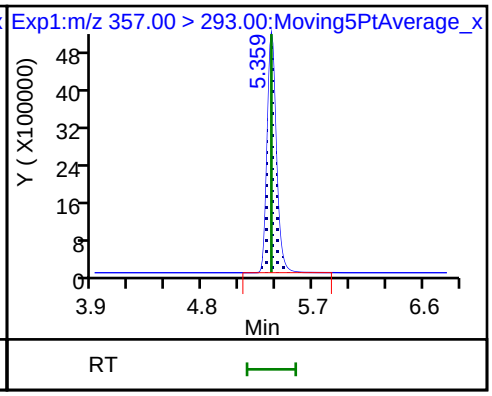
41 5:3 FTCA



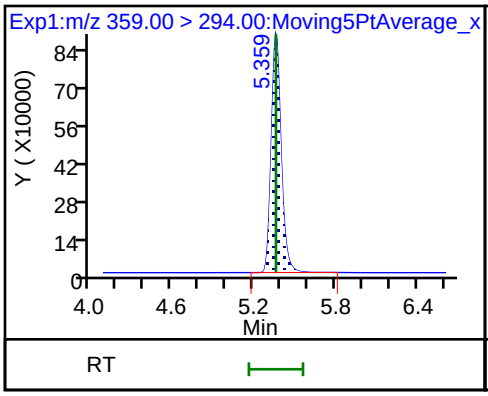
41 5:3 FTCA



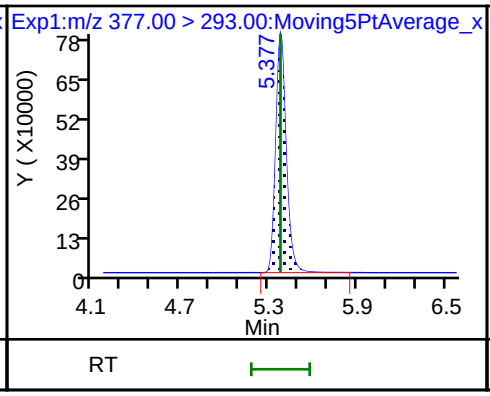
42 6:2 FTUCA



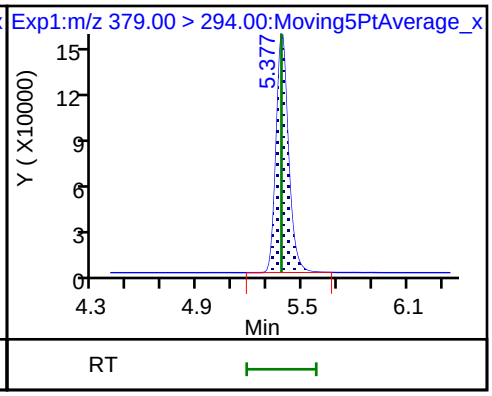
D 43 13C-6:2 FTUCA



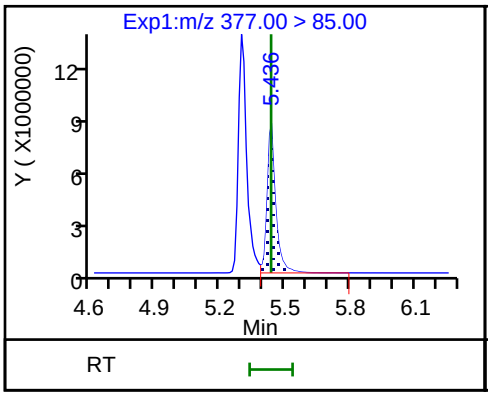
44 6:2 FTCA



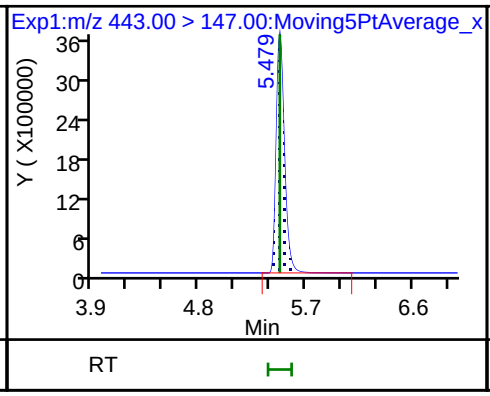
D 45 13C-6:2 FTCA



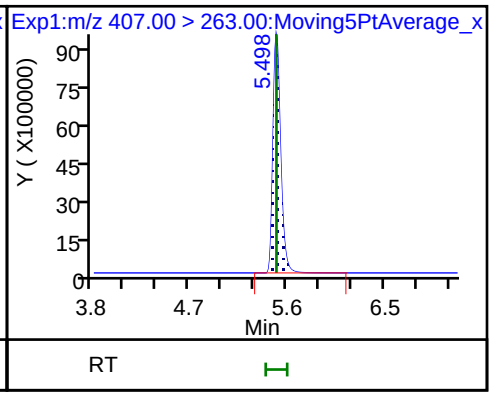
46 PFO4DA



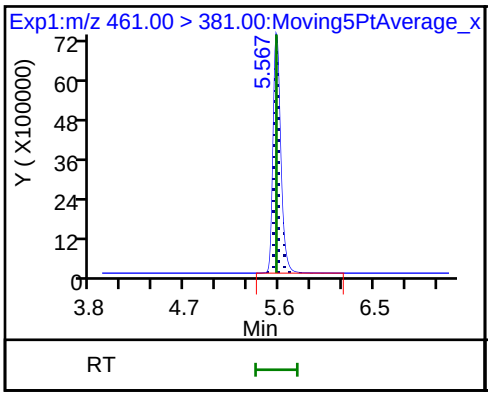
47 PS Acid



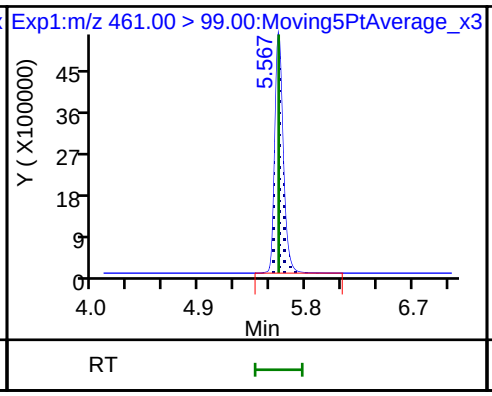
48 EVE Acid



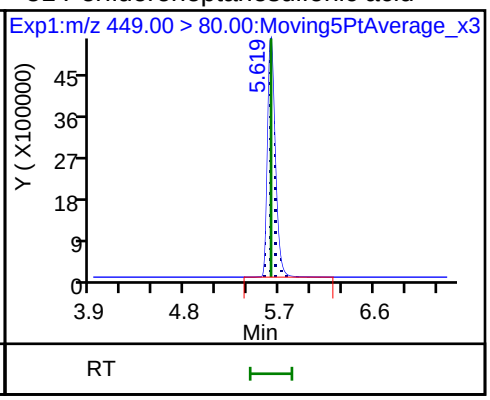
49 PFECHS



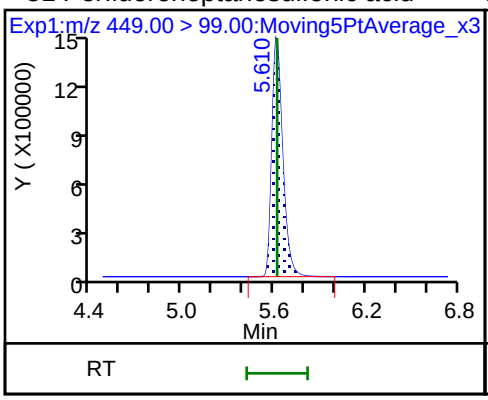
49 PFECHS



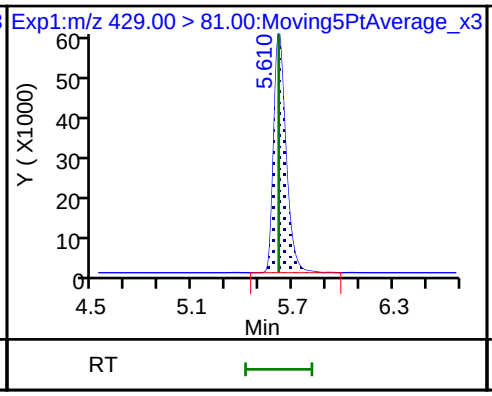
51 Perfluoroheptanesulfonic acid



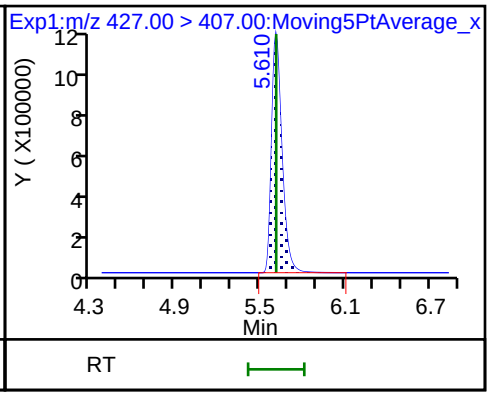
51 Perfluoroheptanesulfonic acid



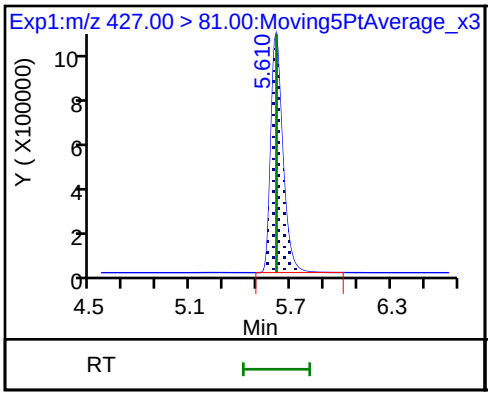
D 52 M2-6:2 FTS



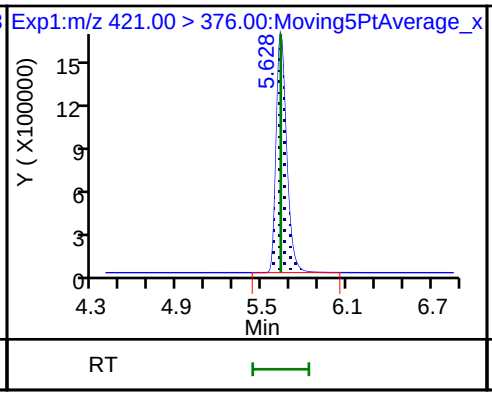
50 6:2 FTS



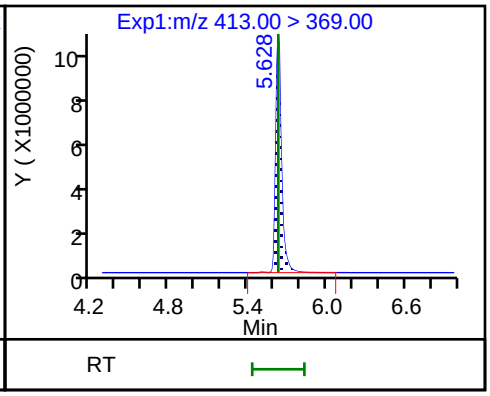
50 6:2 FTS



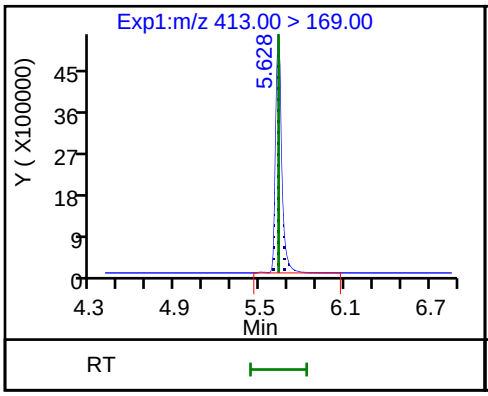
D 54 13C8 PFOA



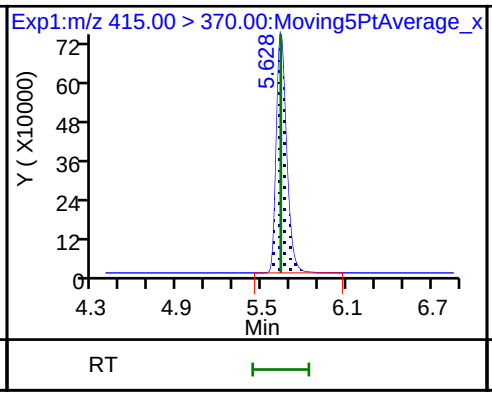
53 Perfluorooctanoic acid



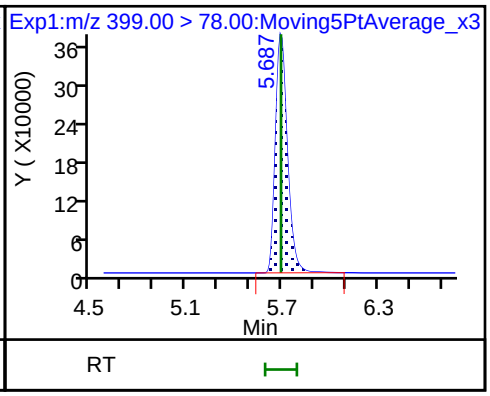
53 Perfluorooctanoic acid



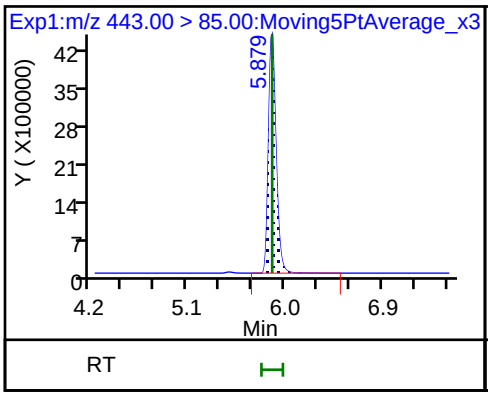
* 55 13C2 PFOA



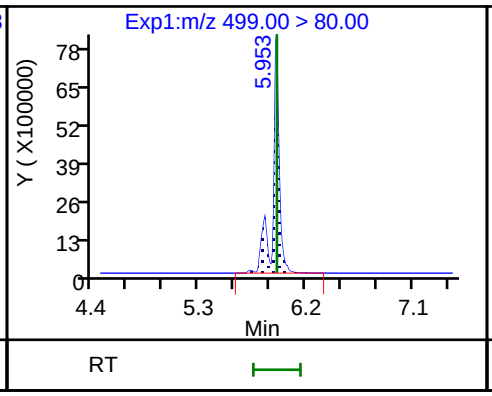
106 FHxSA



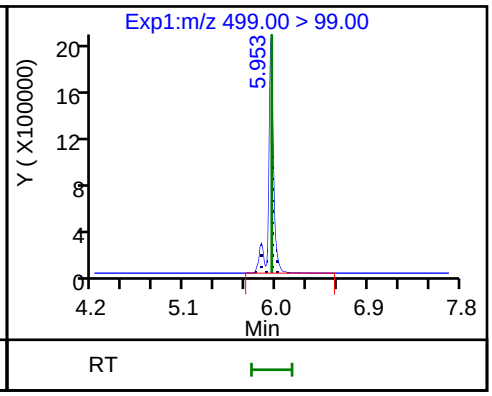
56 TAF



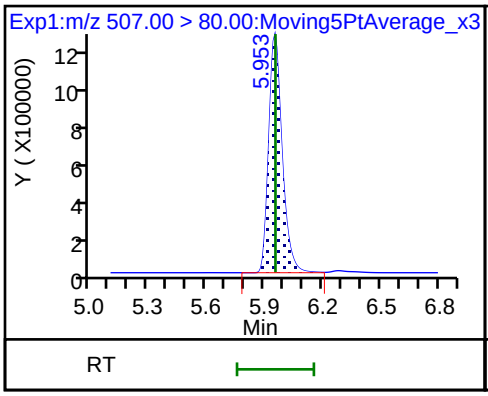
57 Perfluorooctanesulfonic acid



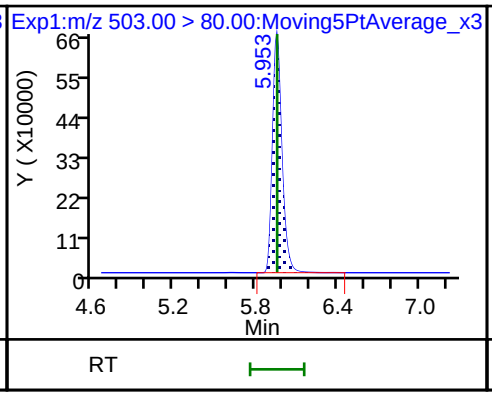
57 Perfluorooctanesulfonic acid



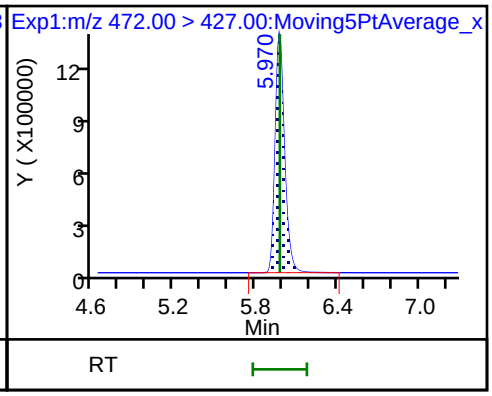
D 58 13C8 PFOS



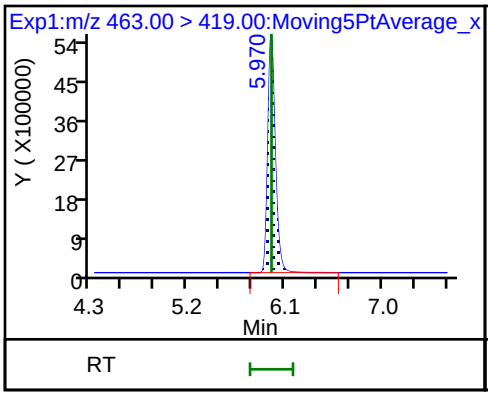
* 59 13C4 PFOS



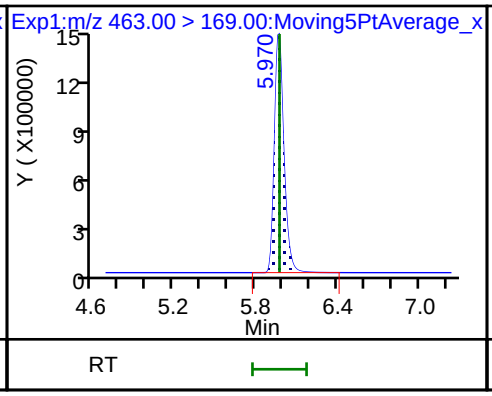
D 60 13C9 PFNA



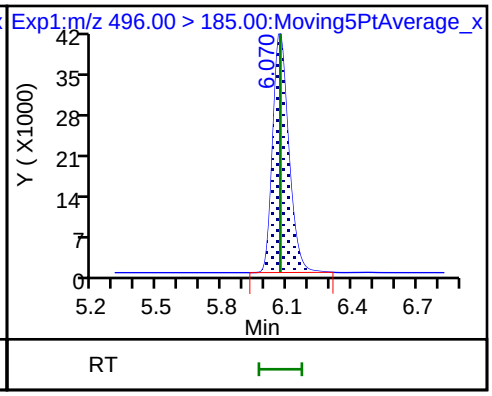
61 Perfluorononanoic acid



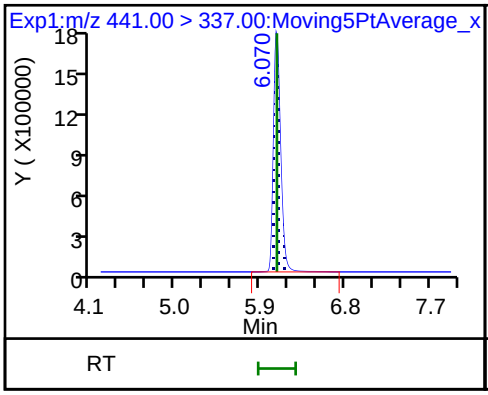
61 Perfluorononanoic acid



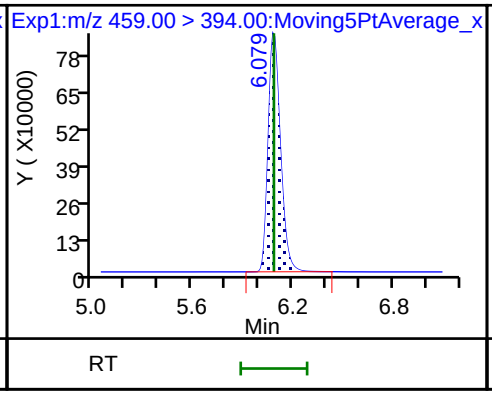
109 HFPO-TrA



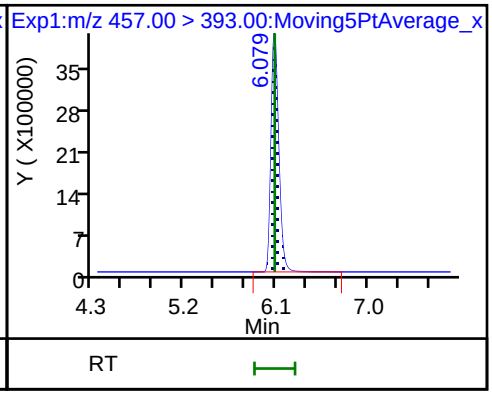
62 7:3 FTCA



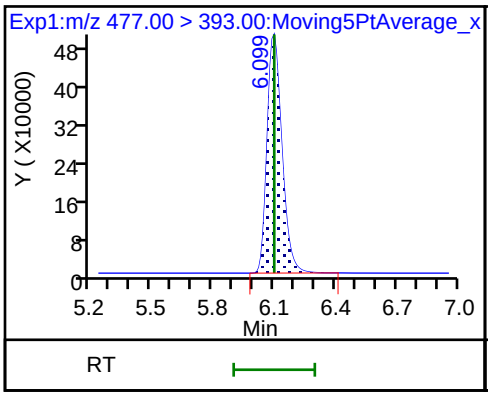
D 64 13C-8:2 FTUCA



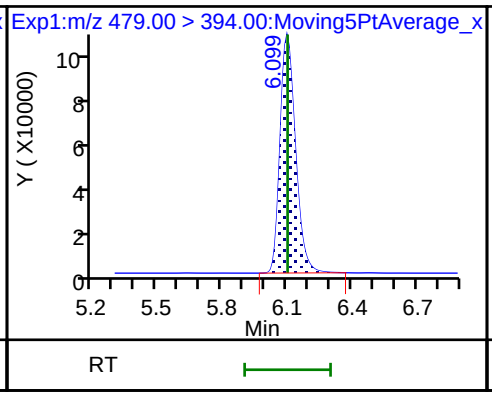
63 8:2 FTUCA



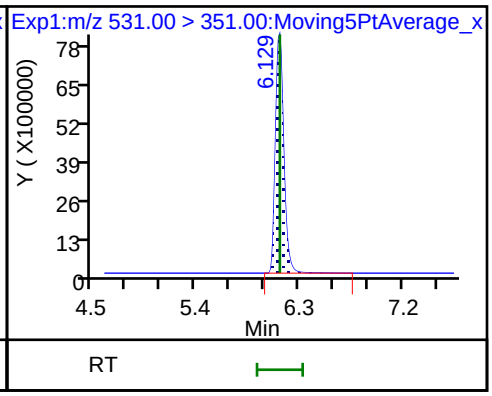
65 8:2 FTCA



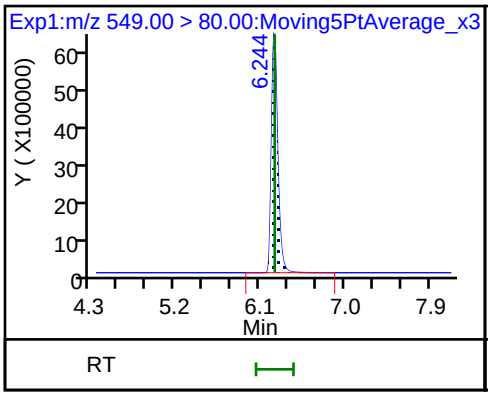
D 66 13C-8:2 FTCA



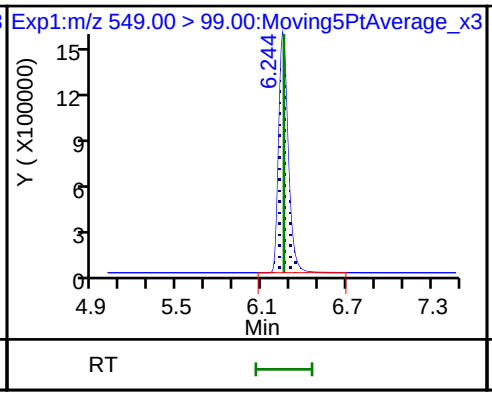
67 9ClFOS



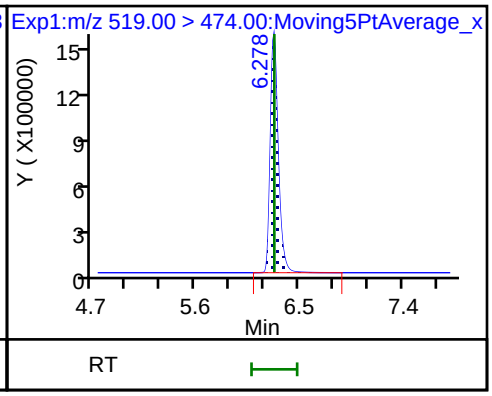
68 Perfluorononanesulfonic acid



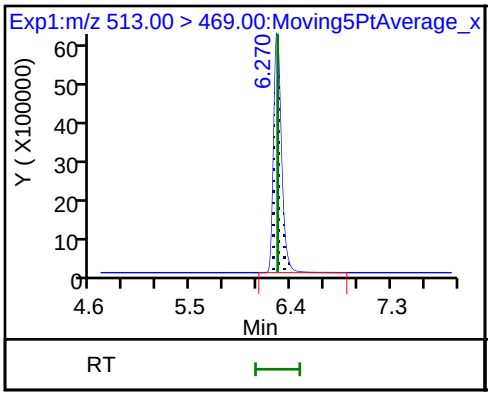
68 Perfluorononanesulfonic acid



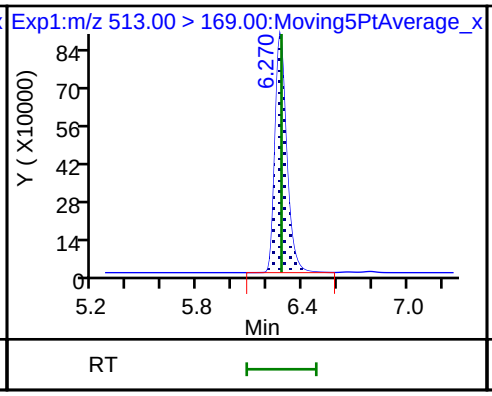
D 71 13C6 PFDA



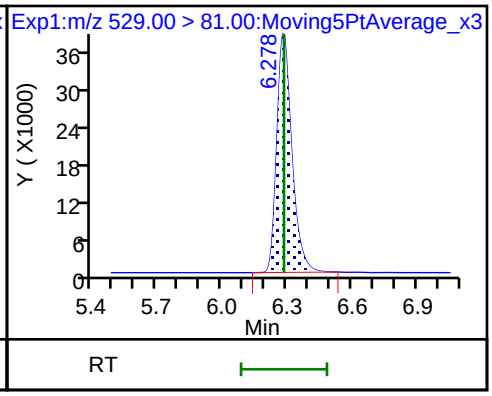
69 Perfluorodecanoic acid



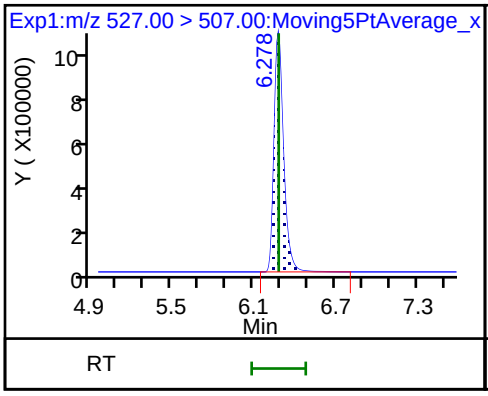
69 Perfluorodecanoic acid



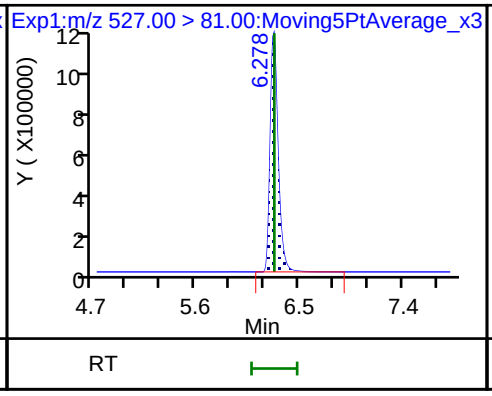
D 73 M2-8:2 FTS



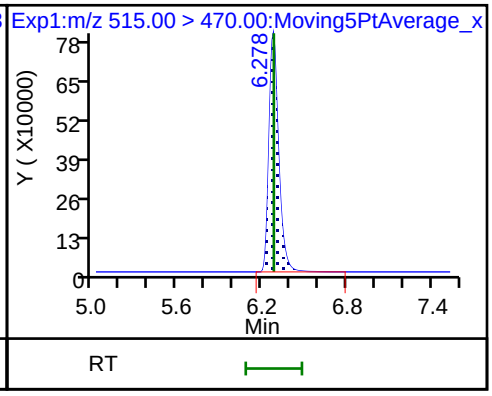
72 8:2 FTS



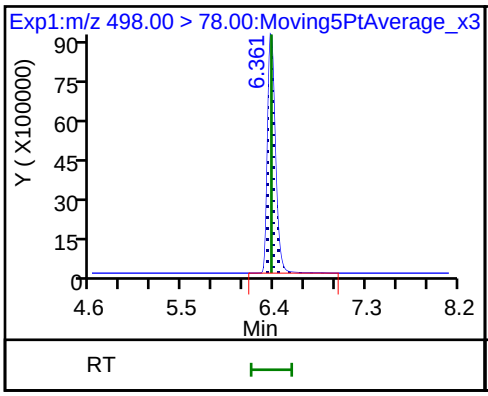
72 8:2 FTS



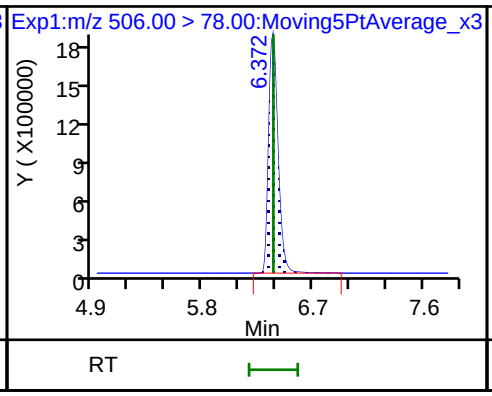
* 70 13C2 PFDA



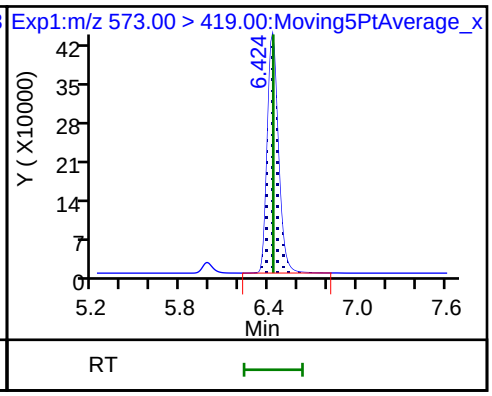
75 Perfluorooctanesulfonamide



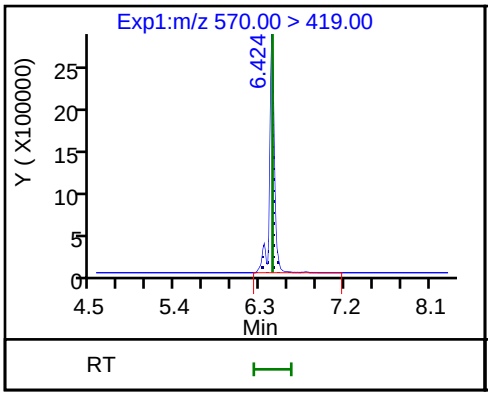
D 74 13C8 FOSA



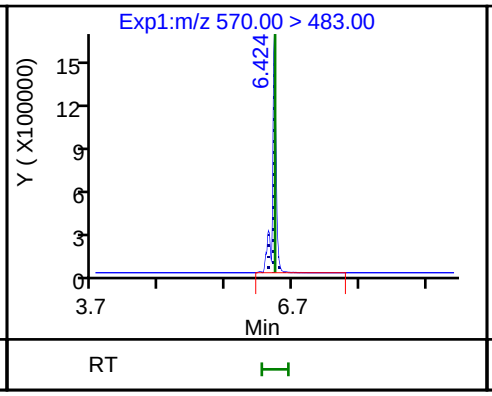
D 77 d3-NMeFOSAA



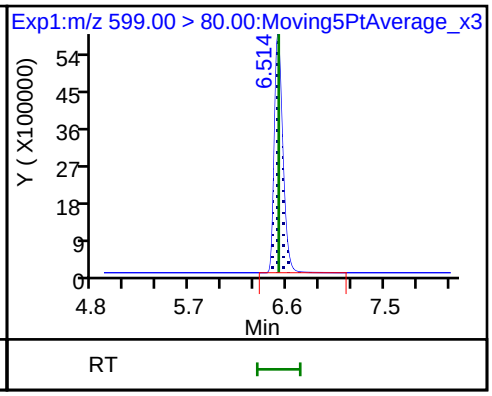
76 NMeFOSAA



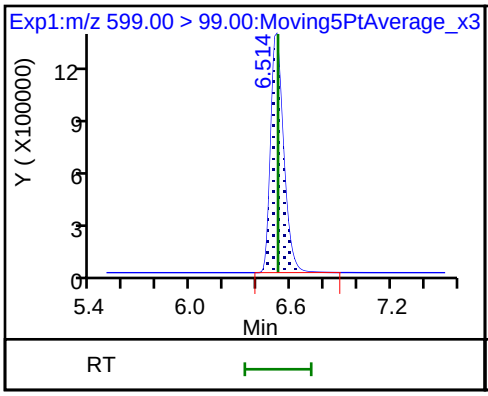
76 NMeFOSAA



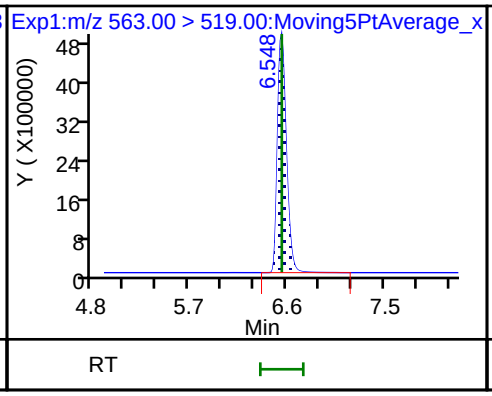
78 Perfluorodecanesulfonic acid



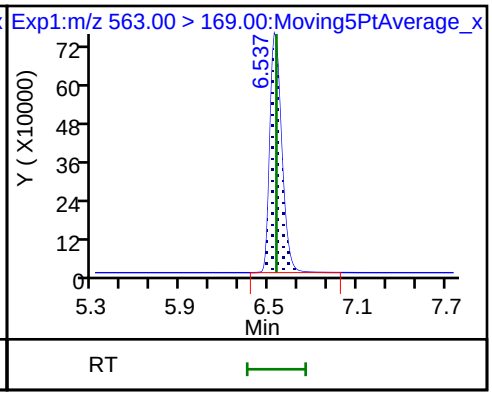
78 Perfluorodecanesulfonic acid



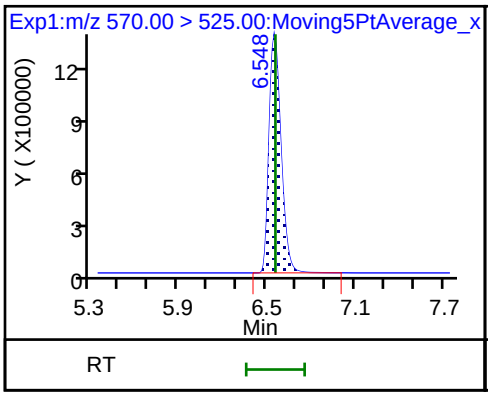
79 Perfluoroundecanoic acid



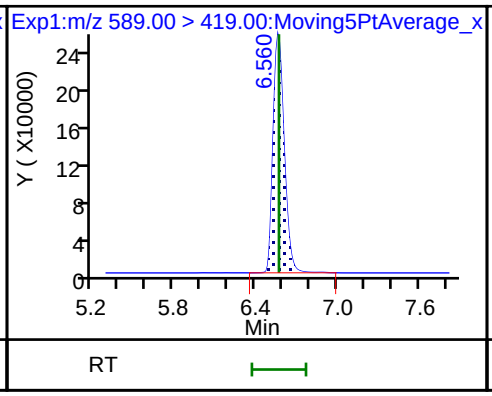
79 Perfluoroundecanoic acid



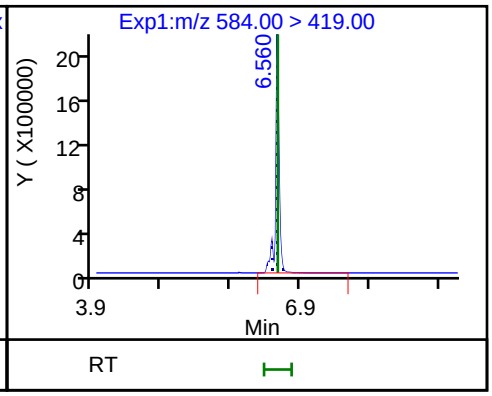
D 80 13C7 PFUnA



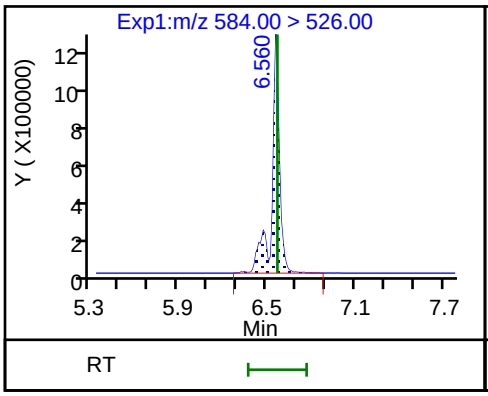
D 81 d5-NEtFOSAA



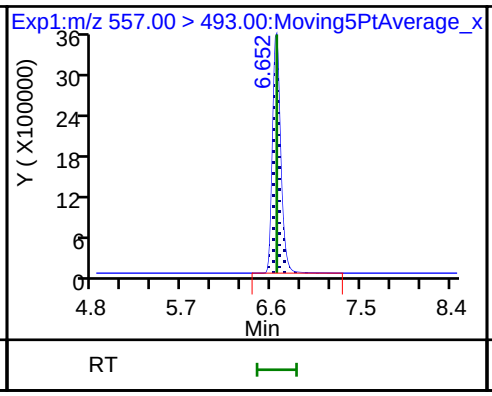
82 NEtFOSAA



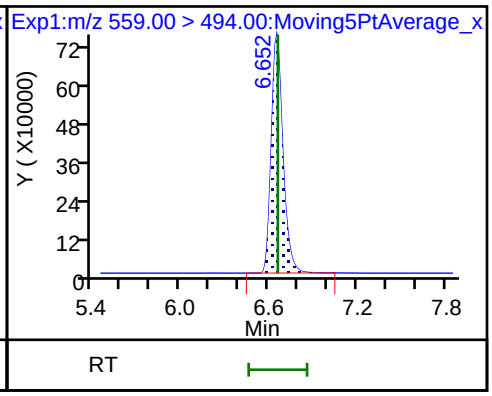
82 NEtFOSAA



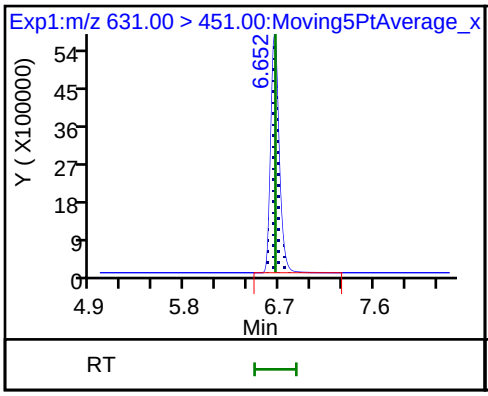
83 10:2 FTUCA



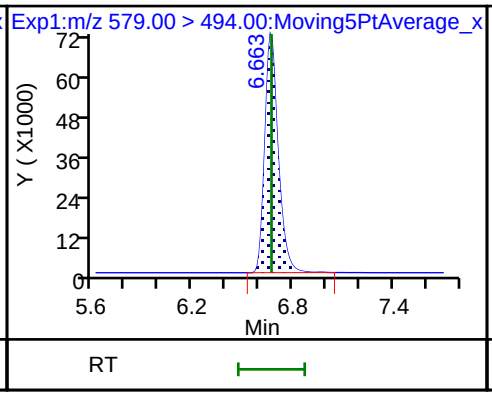
D 85 13C-10:2 FTUCA



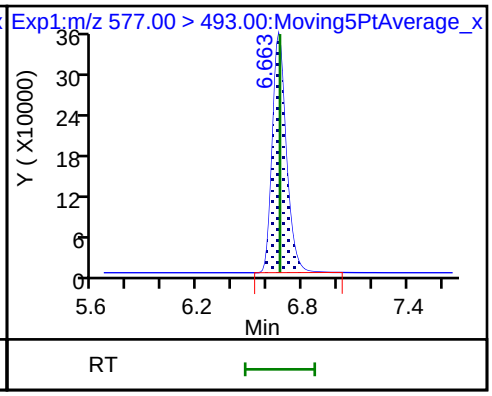
84 11ClFOS



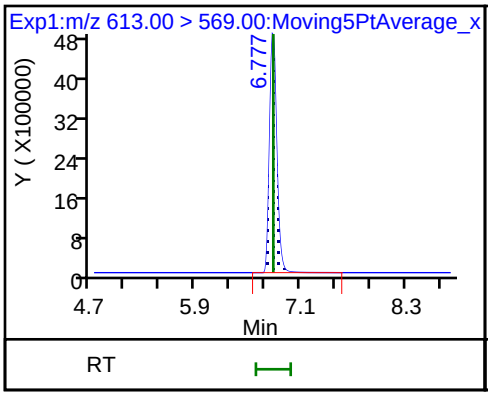
D 87 13C-10:2 FTCA



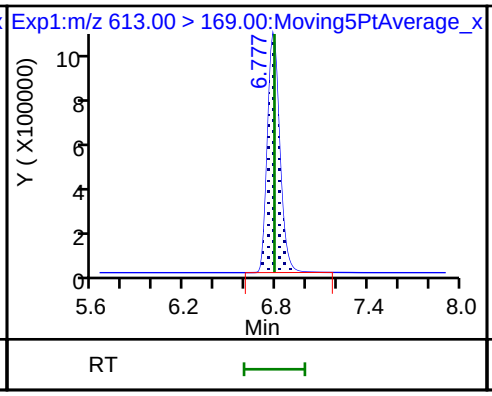
86 10:2 FTCA



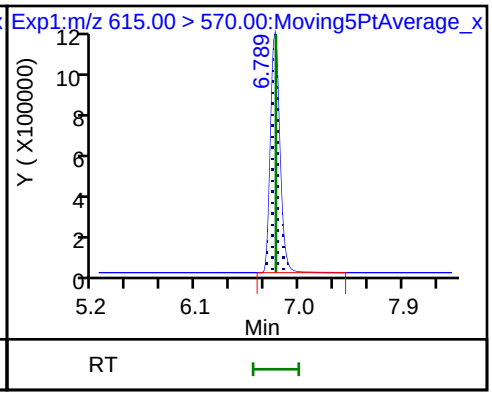
88 Perfluorododecanoic acid



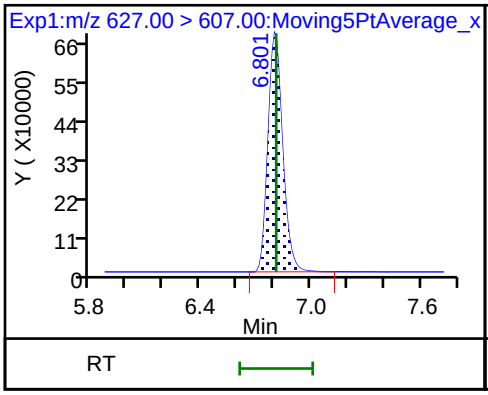
88 Perfluorododecanoic acid



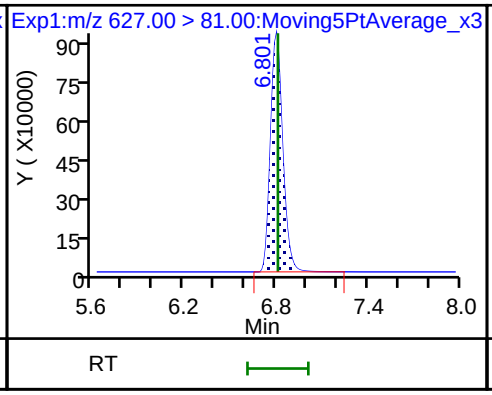
D 89 13C2-PFDoDA



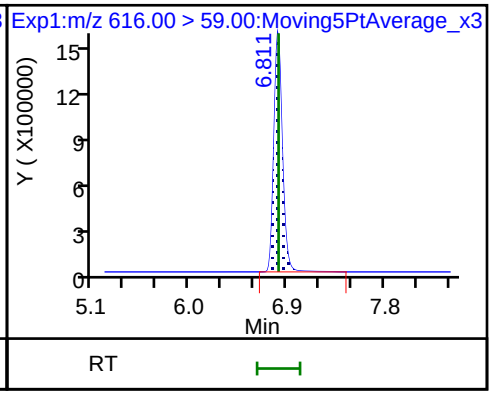
90 10:2 FTS



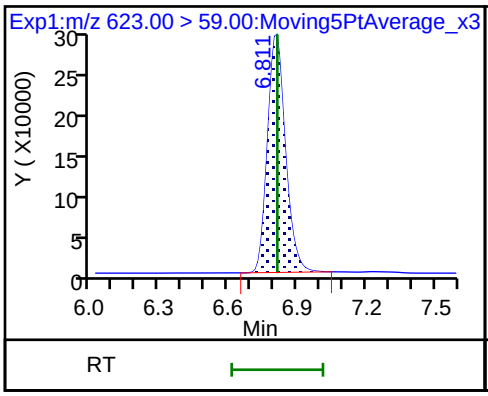
90 10:2 FTS



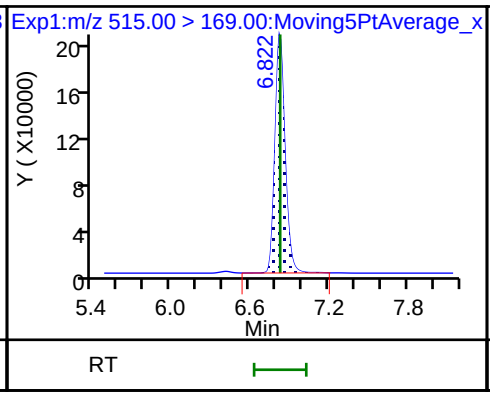
92 N-MeFOSE-M



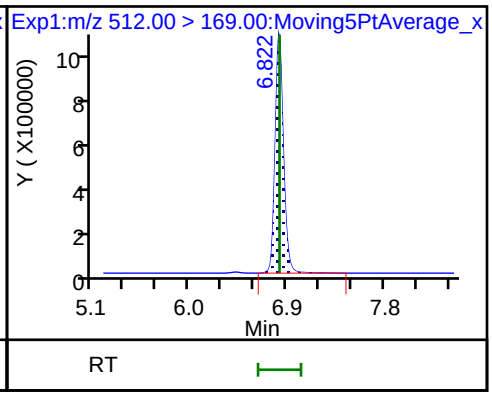
D 91 d7-N-MeFOSE-M



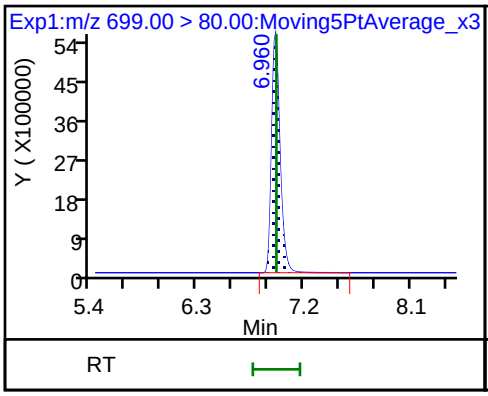
D 93 d3-NMePFOSA



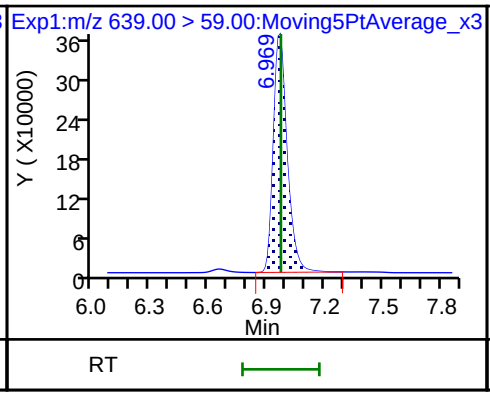
94 NMeFOSA



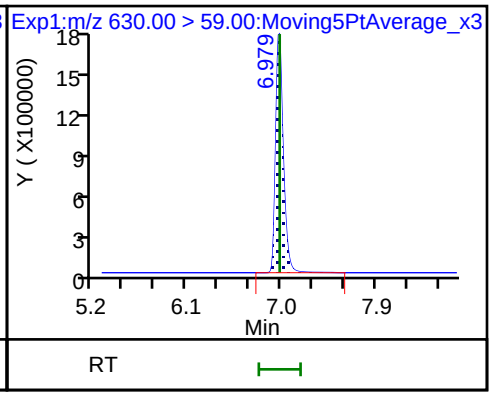
95 PFDoS



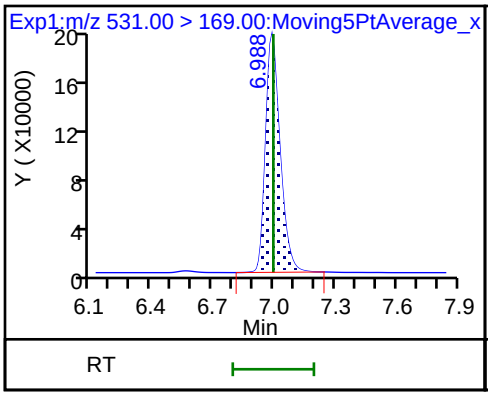
D 96 d9-N-EtFOSE-M



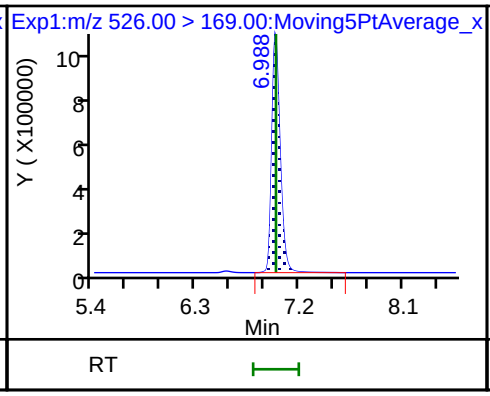
97 N-EtFOSE-M



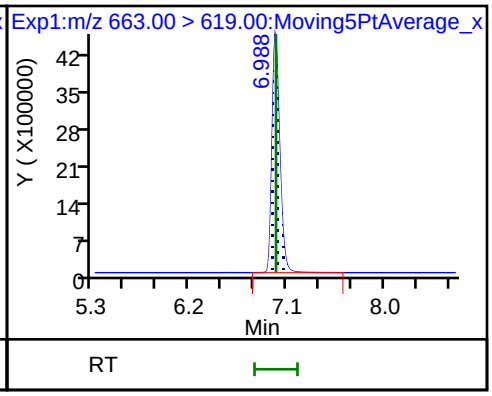
D 98 d5-NEtPFOSA



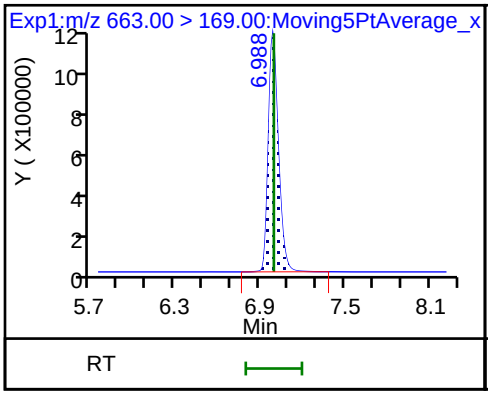
100 N-EtFOSA-M



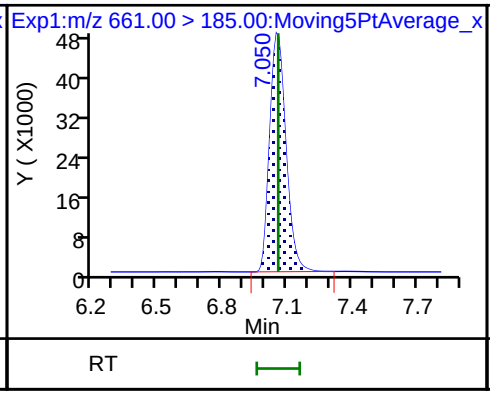
99 Perfluorotridecanoic acid



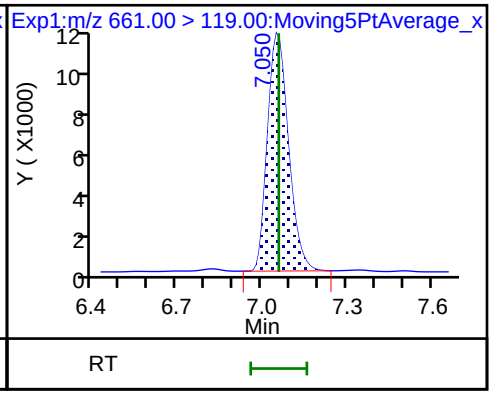
99 Perfluorotridecanoic acid



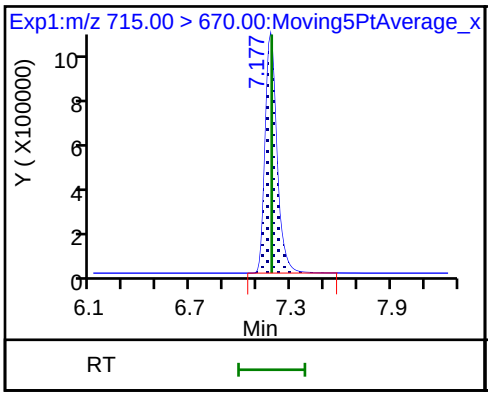
105 HFPOTeA



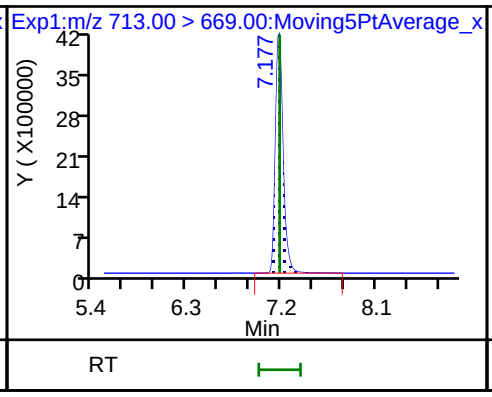
105 HFPOTeA



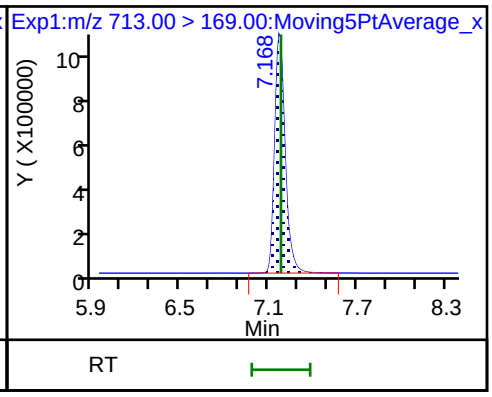
D 102 13C2 PFTeDA



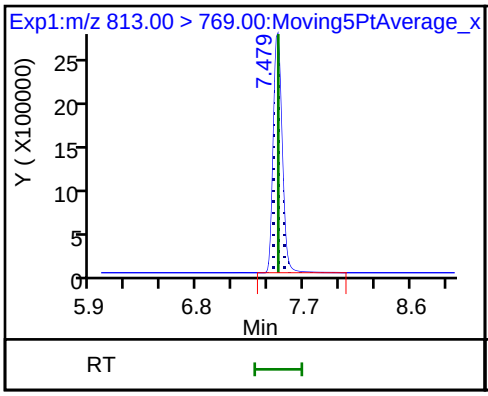
101 Perfluorotetradecanoic acid



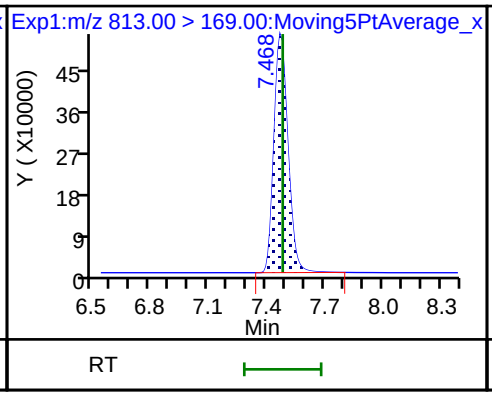
101 Perfluorotetradecanoic acid



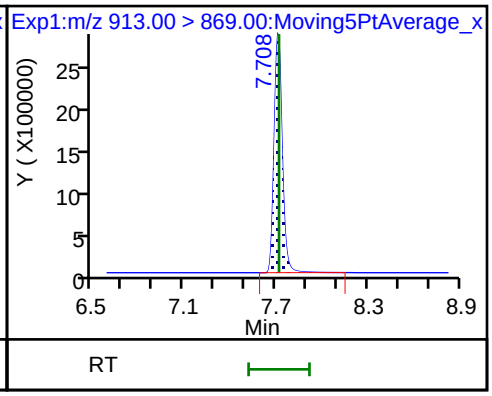
103 Perfluorohexadecanoic acid



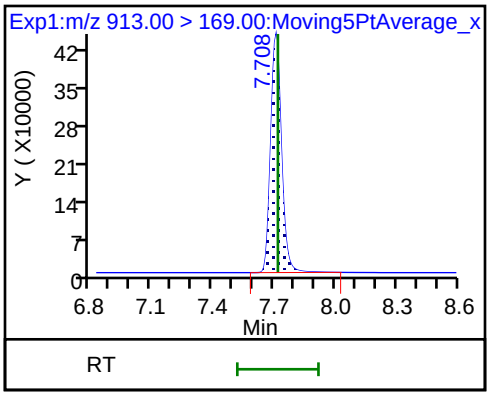
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d
Lims ID: IC CAL 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 01-Mar-2022 22:21:52 ALS Bottle#: 20008 Worklist Smp#: 7
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL 7
Misc. Info.: Plate: 1 Rack: 1 410-0051412-007
Operator ID: US19_USR_INS20261 Instrument ID: 30728
Sublist: chrom-PFAS_30728_XList*sub16

Method: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 01-Mar-2022 23:54:30 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1606

First Level Reviewer: polaskia Date: 01-Mar-2022 23:26:50
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.065	1.065	0.0	0.279	18422623	103.0		105	34637	
1 MTP										
175.00 > 97.00	1.502	1.518	-0.016	0.393	7288002	112.3		112	186865	
2 PPF Acid										
163.00 > 119.00	1.871	1.874	-0.003	0.490	34002154	108.2		108	95793	
3 PFMOAA										
179.00 > 85.00	2.894	2.891	0.003	0.757	28763811	107.2		107	455608	
4 R-PSDA										
441.00 > 241.00	3.794	3.792	0.002	0.850	2366507	104.7		105	136891	
5 R-EVE										
405.00 > 217.00	3.794	3.793	0.001	0.993	6211457	101.6		102	345979	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.822	3.816	0.006	1.000	56999744	98.7		98.7	190904	
D 6 13C4 PFBA										
217.00 > 172.00	3.822	3.816	0.006	1.000	6707258	10.1		101	139131	
* 8 13C3-PFBA										
216.00 > 172.00	3.822	3.817	0.005		3057859	5.00			7895	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.822	3.817	0.005	0.856	8406088	97.6		97.6	373366	
10 PMPA										
229.00 > 185.00	3.962	3.956	0.006	1.037	35990945	105.1		105	769565	
11 PFPrS										
249.00 > 99.00	4.025	4.020	0.005	1.053	15020710	97.5		106	616052	
12 NVHOS										
297.00 > 135.00	4.064	4.060	0.004	0.911	15250396	101.6		102	500655	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 PFECA F										
229.00 > 85.00	4.083	4.082	0.001	1.068	61304061	96.3		96.3	12744	
14 PFO2HxA										
245.00 > 85.00	4.290	4.286	0.004	1.123	26903766	106.6		107	1633365	
15 3:3 FTCA										
241.00 > 177.00	4.406	4.403	0.003	1.000	4294338	96.8		96.8	255907	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.406	4.404	0.002	1.000	58974978	90.4		90.4	451593	
D 17 13C5 PFPeA										
268.00 > 223.00	4.406	4.404	0.002	1.153	5615966	10.5		105	209294	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.463	4.460	0.003	1.000	48818921	90.5	Target=3.14	102	154831	
299.00 > 99.00	4.463	4.460	0.003	1.000	15831650		3.08(1.57-4.71)	102	164689	
D 19 13C3 PFBS										
302.00 > 80.00	4.463	4.462	0.001	1.168	5188819	9.59		103	274540	
20 PEPA										
279.00 > 235.00	4.518	4.517	0.001	1.182	12427559	103.9		104	252633	
21 PFECA A										
279.00 > 85.00	4.547	4.543	0.004	1.019	58586302	103.1		103	3900471	
22 PES										
315.00 > 135.00	4.638	4.638	0.0	1.039	144394226	90.5		102	10031300	
23 PFECA B										
201.00 > 85.00	4.767	4.771	-0.004	1.068	86244279	98.5	Target=1.81	98.5	118174	
295.00 > 201.00	4.767	4.771	-0.004	1.068	48222716		1.79(0.90-2.71)	98.5	2468351	
110 FBSA										
299.00 > 78.00	4.796	4.792	0.004	1.075	2603585	94.5		94.5	171983	
24 4:2 FTS										
327.00 > 307.00	4.806	4.803	0.003	1.000	17094559	93.7	Target=1.33	100	1179404	
327.00 > 81.00	4.806	4.803	0.003	1.000	11829921		1.45(0.66-1.99)	100	608292	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.806	4.806	0.0	0.852	643328	7.76		83.1	26599	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.846	4.843	0.003	1.000	51742098	98.4	Target=12.64	98.4	705144	
313.00 > 119.00	4.846	4.843	0.003	1.000	4272276		12.11(6.32-18.96)	98.4	207019	
D 27 13C5 PFHxA										
318.00 > 273.00	4.846	4.846	0.0	0.859	6782298	9.94		99.4	218770	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.866	4.863	0.003	1.090	48662840	94.9	Target=3.66	101	3136984	
349.00 > 99.00	4.866	4.863	0.003	1.090	13725270		3.55(1.83-5.49)	101	669715	
29 PFO3OA										
311.00 > 85.00	4.906	4.903	0.003	1.284	31873567	102.6		103	879360	
30 HFPO-DA										
329.00 > 285.00	4.978	4.978	0.0	0.998	23798764	118.4		118	655883	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.988	4.983	0.005	0.884	1627989	10.2		102	102050	
32 Hydro-EVE Acid										
427.00 > 283.00	5.212	5.201	0.011	1.364	89261823	96.8		96.8	4080578	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
33 R-PSDCA										
397.00 > 217.00	5.212	5.209	0.003	1.168	135104284	98.3		98.3	4860875	
108 FBSEE										
386.00 > 166.00	5.223	5.220	0.003	1.170	1580813	53.5	Target=1.76	53.5	95330	
386.00 > 80.00	5.223	5.220	0.003	1.170	801631		1.97(0.88-2.64)	53.5	36061	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.255	5.254	0.001	1.000	42256260	98.5	Target=3.57	108	2271818	
399.00 > 99.00	5.255	5.254	0.001	1.000	11916061		3.55(1.78-5.35)	108	24503	
D 37 13C3 PFHxS										
402.00 > 80.00	5.255	5.254	0.001	0.932	4182178	8.63		91.2	95455	
D 38 13C4 PFHpA										
367.00 > 322.00	5.266	5.255	0.011	0.934	6170933	8.40		84.0	185251	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.255	5.254	0.001	0.998	57895093	102.4	Target=3.54	102	1483427	
363.00 > 169.00	5.255	5.254	0.001	0.998	17181823		3.37(1.77-5.31)	102	284571	
34 Hydro-PS Acid										
463.00 > 263.00	5.266	5.246	0.020	1.180	93116142	99.8		99.8	197975	
39 DONA										
377.00 > 251.00	5.309	5.303	0.006	1.008	80956080	113.4		120	5001800	
40 PFECA G										
379.00 > 185.00	5.330	5.322	0.008	1.395	99402083	91.9		91.9	6218255	
41 5:3 FTCA										
341.00 > 237.00	5.340	5.338	0.002	1.014	12689829	120.2	Target=3.04	120	806046	
341.00 > 217.00	5.340	5.338	0.002	1.014	4171558		3.04(1.52-4.55)	120	198436	
42 6:2 FTUCA										
357.00 > 293.00	5.359	5.359	0.0	0.998	45386112	94.5		94.5	1465648	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.369	5.361	0.008	0.952	3874122	9.66		96.6	97476	
44 6:2 FTCA										
377.00 > 293.00	5.386	5.378	0.008	1.000	6649427	106.6		107	115014	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.386	5.379	0.007	0.955	603551	9.57		95.7	31348	
46 PFO4DA										
377.00 > 85.00	5.446	5.435	0.011	1.425	38235561	101.1		101	1177	
47 PS Acid										
443.00 > 147.00	5.480	5.479	0.001	1.228	29292691	88.5		88.5	2027981	
48 EVE Acid										
407.00 > 263.00	5.509	5.500	0.009	1.441	77564223	81.8		81.8	5258750	
49 PFECHS										
461.00 > 381.00	5.577	5.569	0.008	1.061	63097638	109.3	Target=1.56	118	4322737	
461.00 > 99.00	5.577	5.569	0.008	1.061	43261825		1.46(0.78-2.34)	118	2981384	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.621	5.614	0.007	0.997	249663	8.42		88.6	16469	
50 6:2 FTS										
427.00 > 407.00	5.621	5.613	0.008	1.000	9176064	95.9	Target=1.19	101	592858	
427.00 > 81.00	5.612	5.613	-0.001	0.998	7675215		1.20(0.60-1.79)	101	214078	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.621	5.618	0.003	1.070	44448532	104.6	Target=3.73	110	2219475	
449.00 > 99.00	5.621	5.618	0.003	1.070	11427560		3.89(1.87-5.60)	110	762972	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.640	5.630	0.010	1.000	53468829	108.7	Target=2.20	109	2158250	
413.00 > 169.00	5.630	5.630	0.0	0.998	24678377		2.17(1.10-3.30)	109	9118402	
* 55 13C2 PFOA										
415.00 > 370.00	5.640	5.631	0.009		2938847	5.00			194055	
D 54 13C8 PFOA										
421.00 > 376.00	5.640	5.631	0.009	1.000	6587982	9.16		91.6	216010	
106 FHxSA										
399.00 > 78.00	5.699	5.691	0.008	1.084	3449392	122.3		122	220966	
56 TAF										
443.00 > 85.00	5.883	5.879	0.004	1.539	37971700	106.1		106	66108	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.957	5.954	0.003	1.000	51926084	100.5	Target=4.38	109	59340	
499.00 > 99.00	5.948	5.954	-0.006	0.999	11022953		4.71(2.19-6.58)	109	7733	
* 59 13C4 PFOS										
503.00 > 80.00	5.957	5.955	0.002		2555698	4.78			76076	
D 58 13C8 PFOS										
507.00 > 80.00	5.957	5.955	0.002	1.000	5051930	9.76		102	13974	
61 Perfluorononanoic acid										
463.00 > 419.00	5.974	5.973	0.001	0.999	43733298	98.5	Target=3.95	98.5	1261766	
463.00 > 169.00	5.974	5.973	0.001	0.999	11531375		3.79(1.97-5.92)	98.5	477717	
D 60 13C9 PFNA										
472.00 > 427.00	5.983	5.975	0.008	1.004	5097145	10.1		101	262440	
62 7:3 FTCA										
441.00 > 337.00	6.084	6.077	0.007	1.129	14780519	100.8		101	955562	
109 HFPO-TrA										
496.00 > 185.00	6.074	6.068	0.006	1.218	295859	120.0		120	19890	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.094	6.085	0.009	0.969	3579125	9.51		95.1	117052	
63 8:2 FTUCA										
457.00 > 393.00	6.084	6.084	0.0	0.998	32531644	96.4		96.4	1565043	
65 8:2 FTCA										
477.00 > 393.00	6.103	6.099	0.004	1.000	4159494	101.8		102	275385	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.103	6.102	0.001	0.970	409321	9.66		96.6	27311	
67 9ClFOS										
531.00 > 351.00	6.133	6.130	0.003	1.030	70672289	95.1		102	3610962	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.256	6.254	0.002	1.050	50070405	97.8	Target=4.33	102	3611188	
549.00 > 99.00	6.256	6.254	0.002	1.050	12113038		4.13(2.16-6.49)	102	878144	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.282	6.279	0.003	0.999	49379465	98.0	Target=7.98	98.0	1711269	
513.00 > 169.00	6.282	6.279	0.003	0.999	6687235		7.38(3.99-11.97)	98.0	52844	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
72 8:2 FTS										
527.00 > 507.00	6.290	6.282	0.008	1.000	8349306	90.5	Target=1.01	94.4	574074	
527.00 > 81.00	6.290	6.282	0.008	1.000	8616474		0.97(0.50-1.51)	94.4	598413	
* 70 13C2 PFDA										
515.00 > 470.00	6.290	6.282	0.008		3087004	5.00			92676	
D 71 13C6 PFDA										
519.00 > 474.00	6.290	6.282	0.008	1.000	5992552	10.2		102	313172	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.290	6.285	0.005	1.000	155518	10.2		106	10848	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.375	6.371	0.004	0.998	78864048	95.6		95.6	2481114	
D 74 13C8 FOSA										
506.00 > 78.00	6.385	6.375	0.010	1.015	8318238	10.9		109	392570	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.437	6.428	0.009	1.023	1878705	11.3		113	2973	
76 NMeFOSAA										
570.00 > 419.00	6.437	6.430	0.007	1.000	16701094	100.8	Target=1.69	101	5472966	
570.00 > 483.00	6.426	6.430	-0.004	0.998	9758138		1.71(0.85-2.54)	101	15521	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.527	6.522	0.005	1.096	51650459	102.4	Target=4.28	106	3165456	
599.00 > 99.00	6.516	6.522	-0.006	1.094	12498009		4.13(2.14-6.42)	106	778325	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.551	6.550	0.001	0.998	49032720	102.7	Target=7.28	103	1223022	
563.00 > 169.00	6.551	6.550	0.001	0.998	7087208		6.92(3.64-10.92)	103	425061	
D 80 13C7 PFUnA										
570.00 > 525.00	6.563	6.557	0.006	1.043	6407541	10.3		103	379214	
82 NEtFOSAA										
584.00 > 419.00	6.575	6.570	0.005	1.000	12160770	108.6	Target=1.63	109	328121	
584.00 > 526.00	6.563	6.570	-0.007	0.998	7435067		1.64(0.82-2.45)	109	11461	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.575	6.569	0.006	1.045	1166011	9.86		98.6	25505	
83 10:2 FTUCA										
557.00 > 493.00	6.654	6.654	0.0	0.998	31494710	98.1		98.1	330377	
84 11ClFOS										
631.00 > 451.00	6.665	6.660	0.005	1.119	53327847	97.3		105	2442601	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.665	6.660	0.005	1.060	3340636	10.1		101	149397	
86 10:2 FTCA										
577.00 > 493.00	6.676	6.670	0.006	1.000	3160771	99.4		99.4	114758	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.676	6.670	0.006	1.061	326948	10.6		106	19593	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.791	6.787	0.004	0.998	45483851	96.4	Target=4.76	96.4	2699024	
613.00 > 169.00	6.791	6.787	0.004	0.998	10854825		4.19(2.38-7.14)	96.4	390808	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.803	6.796	0.007	1.082	5170046	10.9		109	311538	

Report Date: 01-Mar-2022 23:54:31 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
90 10:2 FTS										
627.00 > 607.00	6.813	6.810	0.003	1.083	6802550	99.2	Target=0.75	103	313249	
627.00 > 81.00	6.813	6.810	0.003	1.083	8598851		0.79(0.38-1.13)	103	390332	
92 N-MeFOSE-M										
616.00 > 59.00	6.824	6.820	0.004	1.002	14564363	106.5		107	906833	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.813	6.813	0.0	1.083	1347295	10.9		109	10091	
94 NMeFOSA										
512.00 > 169.00	6.834	6.829	0.005	1.000	9256412	106.0		106	44815	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.834	6.829	0.005	1.086	894960	11.4		114	17130	
95 PFDoS										
699.00 > 80.00	6.971	6.967	0.004	1.170	46591643	103.4		107	2397671	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.971	6.973	-0.002	1.108	1488823	10.6		106	7164	
97 N-EtFOSE-M										
630.00 > 59.00	6.980	6.981	-0.001	1.001	14967447	99.9		99.9	986274	
100 N-EtFOSA-M										
526.00 > 169.00	6.999	6.996	0.003	1.000	8841462	108.2		108	44535	
99 Perfluorotridecanoic acid										
663.00 > 619.00	6.999	6.996	0.003	1.029	38511599	94.1	Target=4.11	94.1	1093275	
663.00 > 169.00	6.999	6.996	0.003	1.029	9599729		4.01(2.06-6.17)	94.1	636637	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.999	6.995	0.004	1.113	781448	10.7		107	22207	
105 HFPOTeA										
661.00 > 185.00	7.062	7.058	0.004	1.416	273996	103.8	Target=4.76	105	17883	
661.00 > 119.00	7.062	7.058	0.004	1.416	61923		4.42(2.38-7.14)	105	3073	
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.188	7.181	0.007	1.000	37112393	93.9	Target=4.34	93.9	1056028	
713.00 > 169.00	7.178	7.181	-0.003	0.999	8890871		4.17(2.17-6.50)	93.9	445685	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.188	7.184	0.004	1.143	4477445	11.7		117	181828	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.490	7.483	0.007	1.042	23946453	91.8	Target=5.44	91.8	947086	
813.00 > 169.00	7.480	7.483	-0.003	1.041	4593380		5.21(2.72-8.16)	91.8	153897	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.722	7.717	0.005	1.074	18676480	99.7	Target=6.37	99.7	1288190	
913.00 > 169.00	7.716	7.717	-0.001	1.073	3097030		6.03(3.18-9.55)	99.7	61151	

QC Flag Legend

Processing Flags

Reagents:

PFC_STD_XMOD7_00015 Amount Added: 200.00 Units: uL

Report Date: 01-Mar-2022 23:54:31 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Injection Date: 01-Mar-2022 22:21:52 Instrument ID: 30728

Lims ID: IC CAL 7

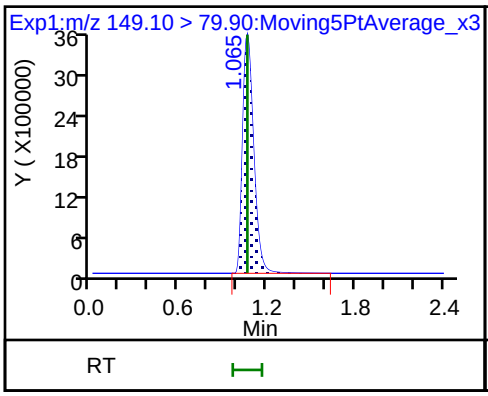
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20008 Worklist Smp#: 7

Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

107 Sodium trifluoromethanesulfonate



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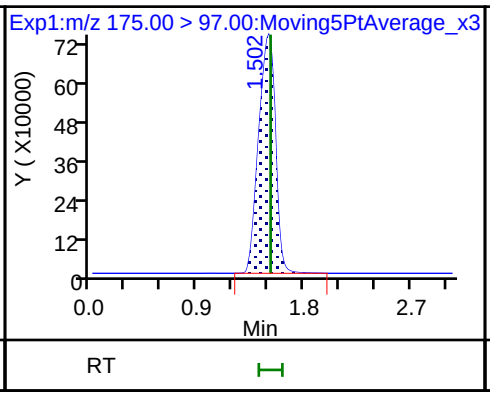
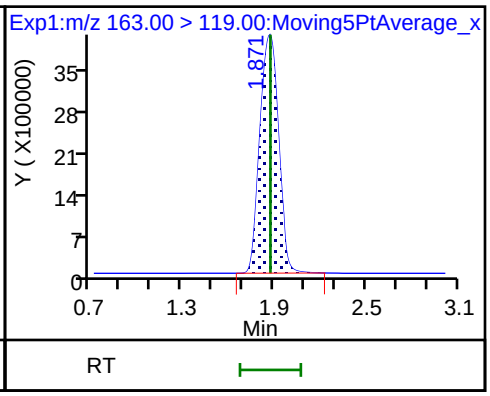
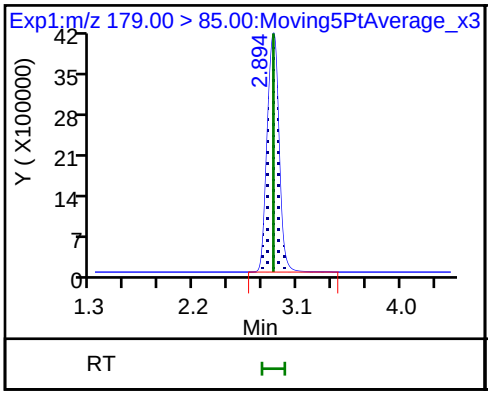


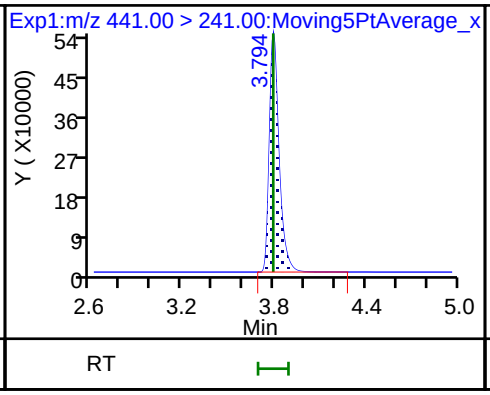
2 PPF Acid



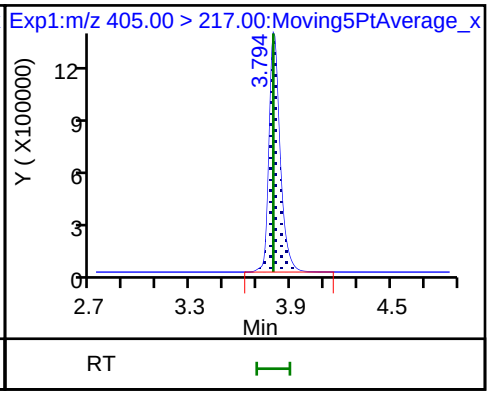
3 PFMOAA



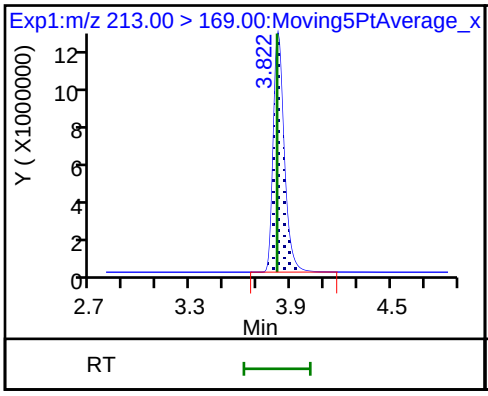
4 R-PSDA



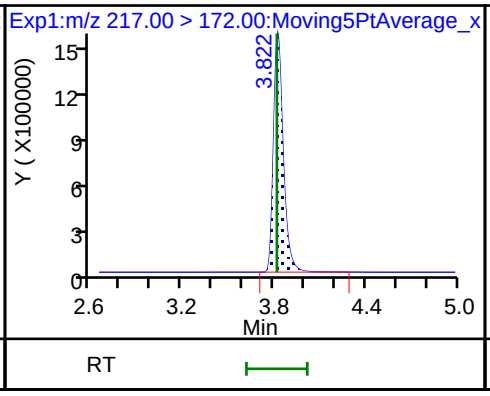
5 R-EVE



7 Perfluorobutanoic acid



D 6 13C4 PFBA



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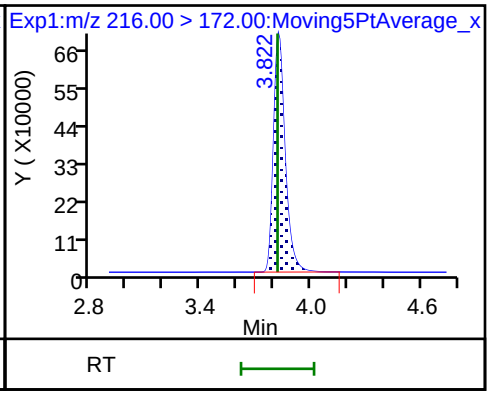
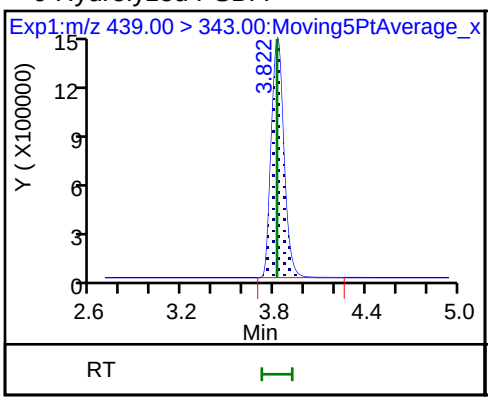
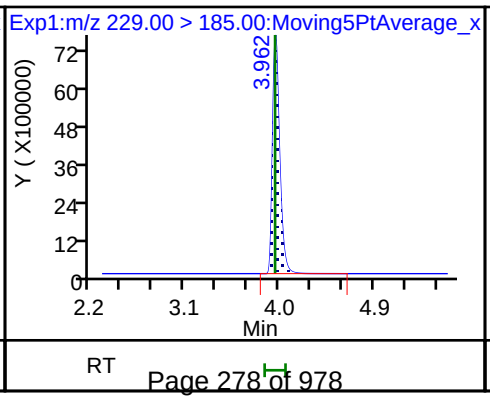


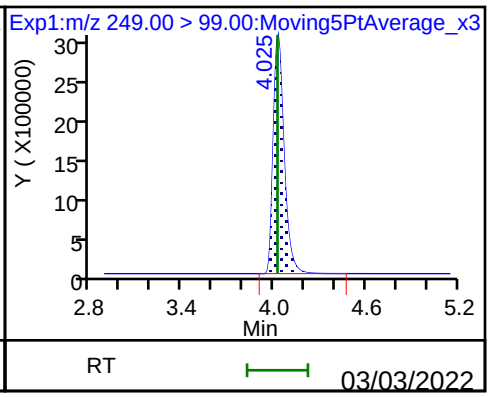
9 Hydrolyzed PSDA



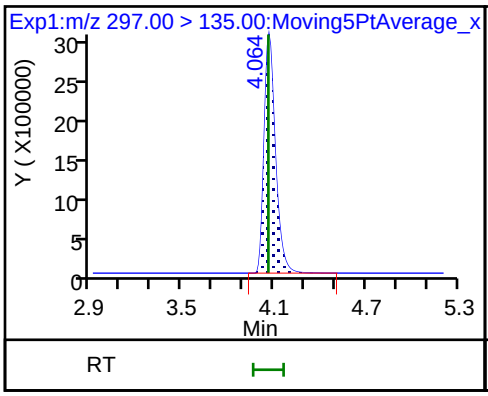
10 PMPA



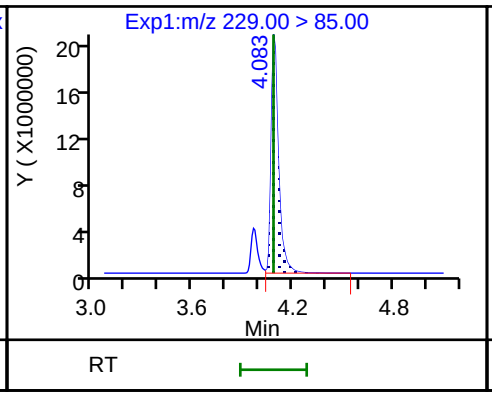
11 PFPrS



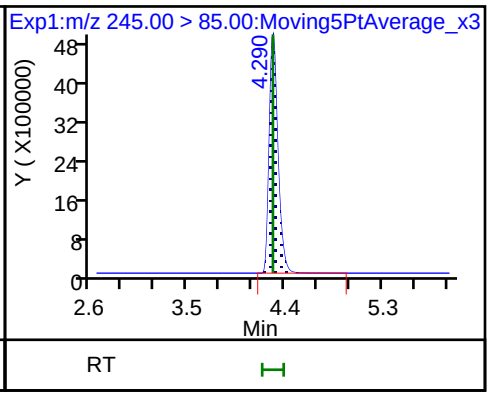
12 NVHOS



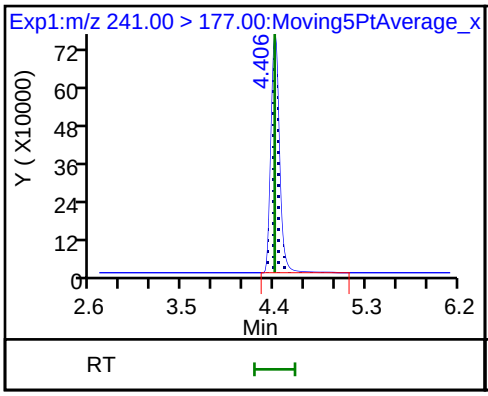
13 PFECA F



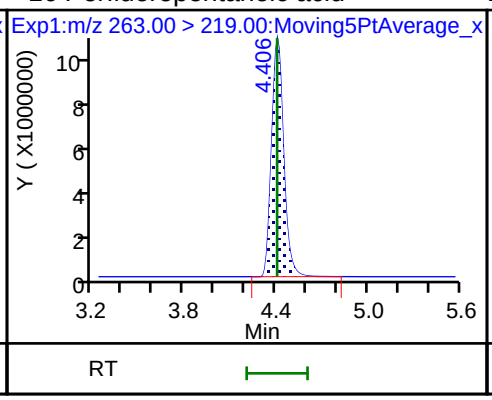
14 PFO2HxA



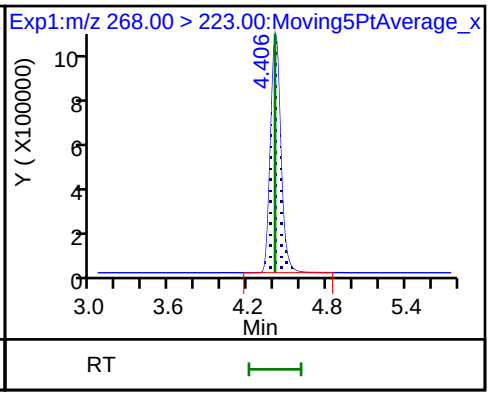
15 3:3 FTCA



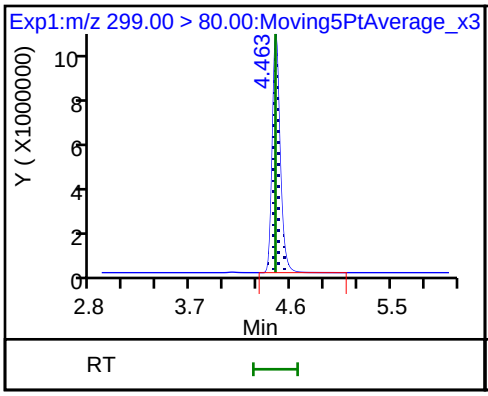
16 Perfluoropentanoic acid



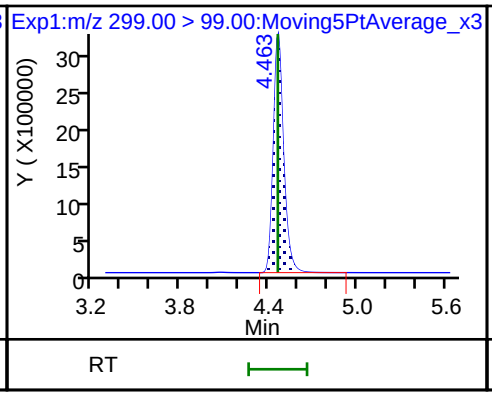
D 17 13C5 PFPeA



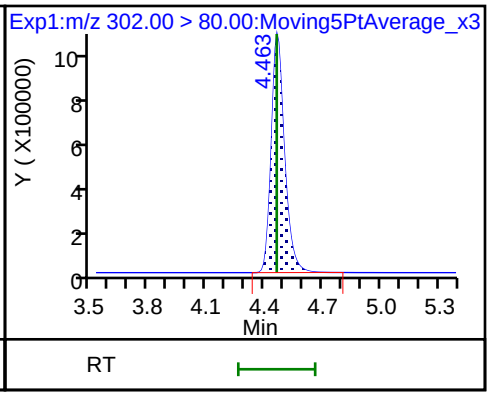
18 Perfluorobutanesulfonic acid



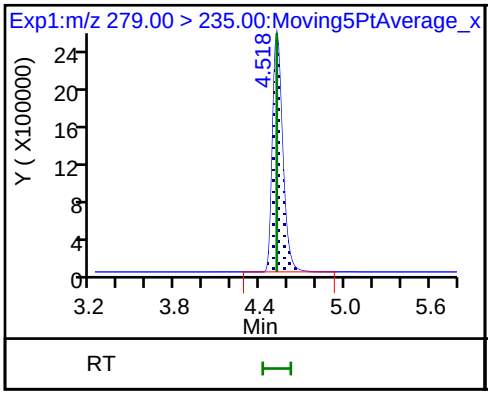
18 Perfluorobutanesulfonic acid



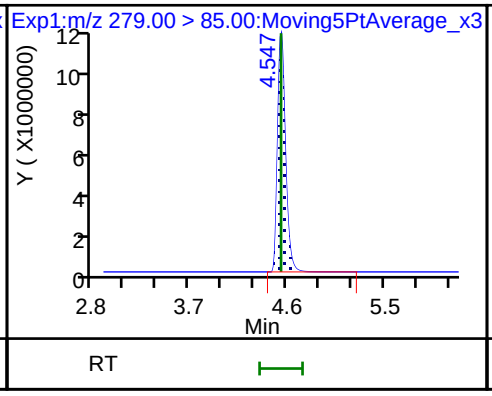
D 19 13C3 PFBS



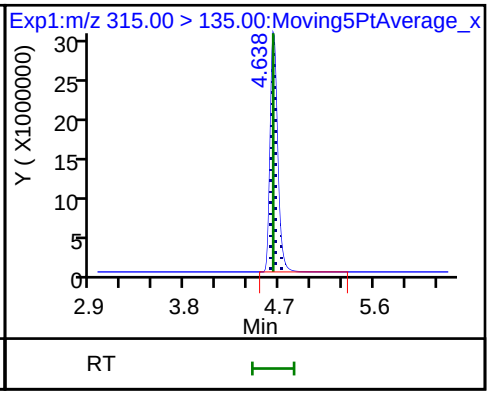
20 PEPA



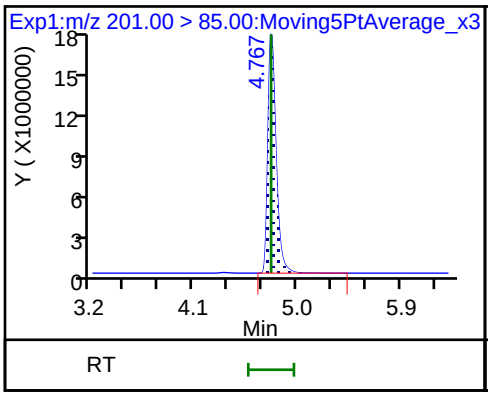
21 PFECA A



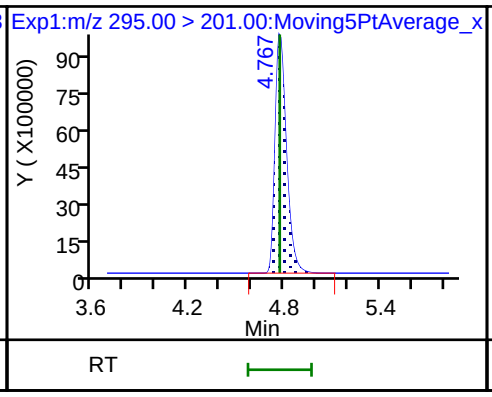
22 PES



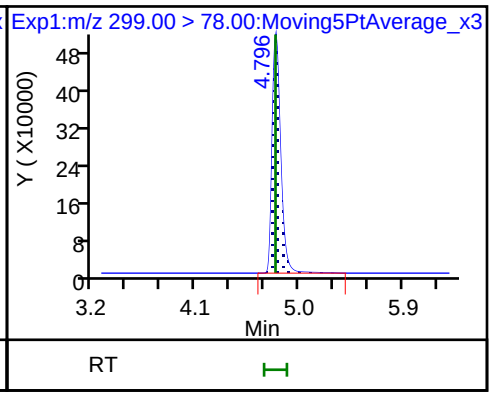
23 PFECA B



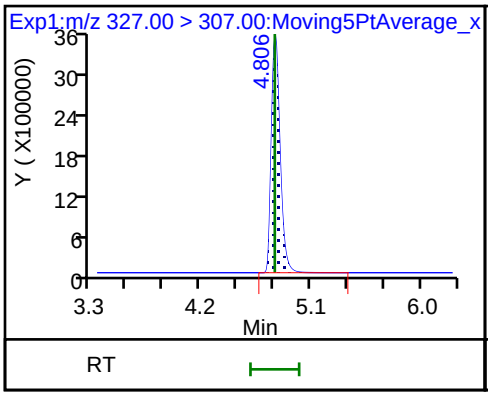
23 PFECA B



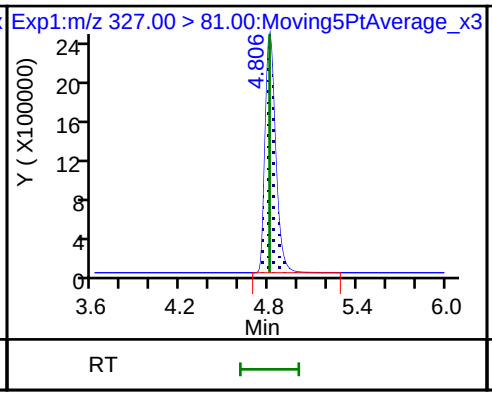
110 FBSA



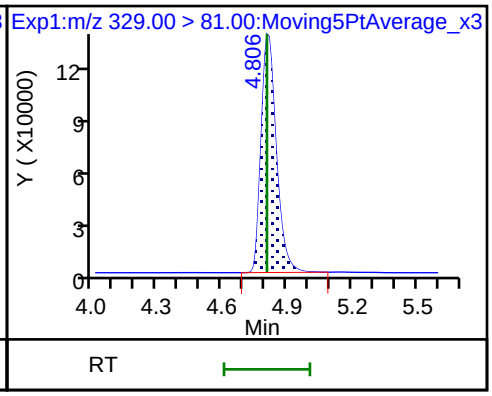
24 4:2 FTS



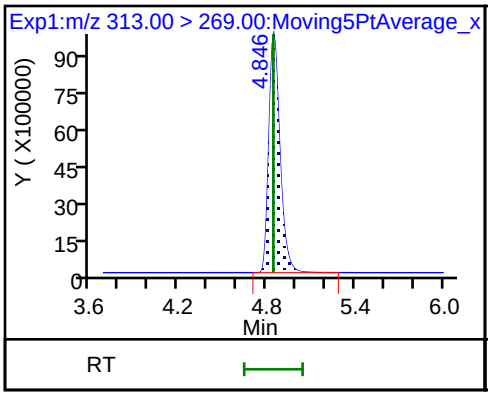
24 4:2 FTS



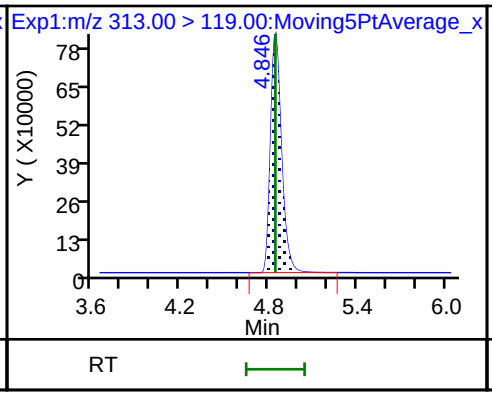
D 25 M2-4:2 FTS



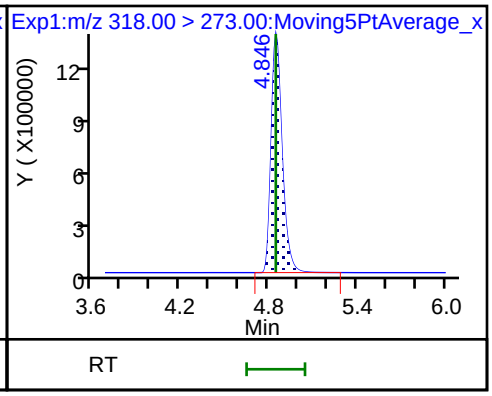
26 Perfluorohexanoic acid



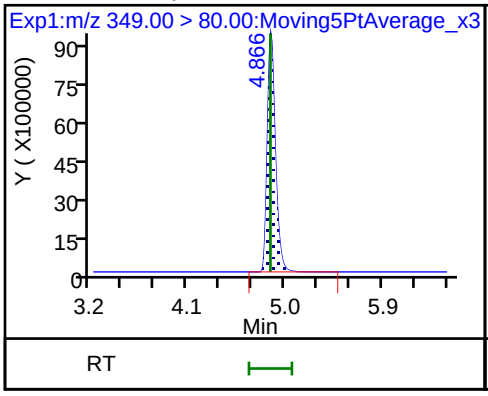
26 Perfluorohexanoic acid



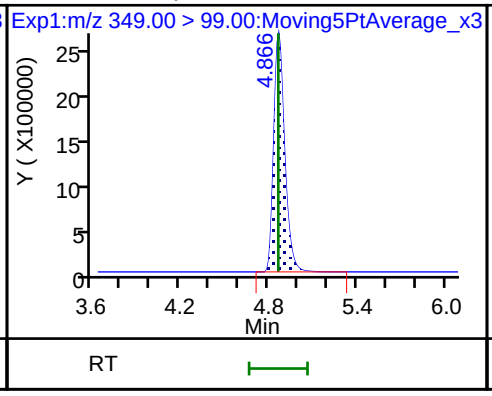
D 27 13C5 PFHxA



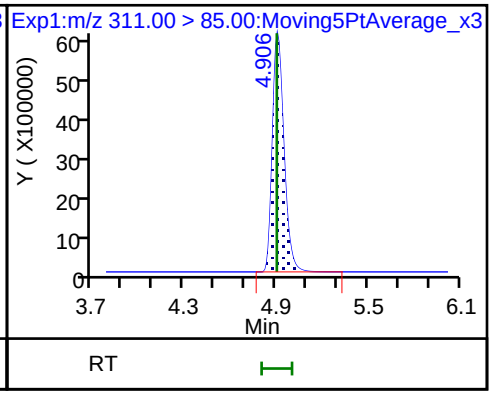
28 Perfluoropentanesulfonic acid



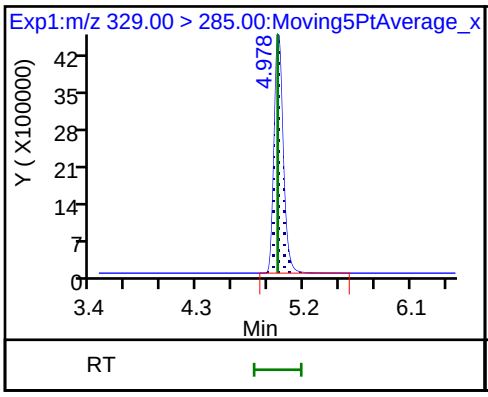
28 Perfluoropentanesulfonic acid



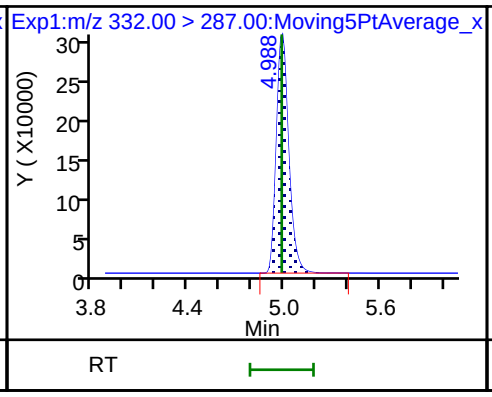
29 PFO3OA



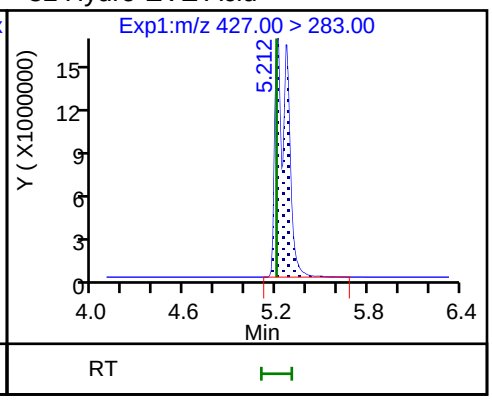
30 HFPO-DA



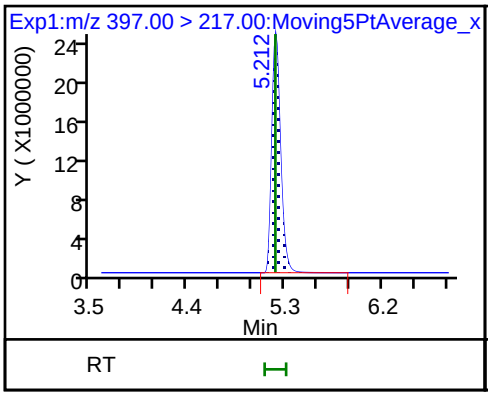
D 31 13C3 HFPO-DA



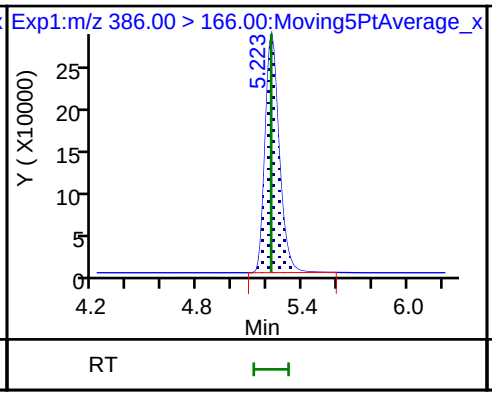
32 Hydro-EVE Acid



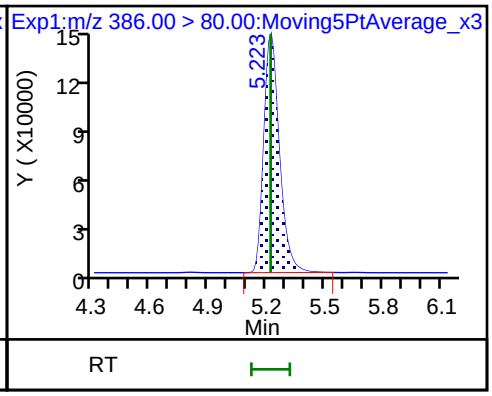
33 R-PSDCA



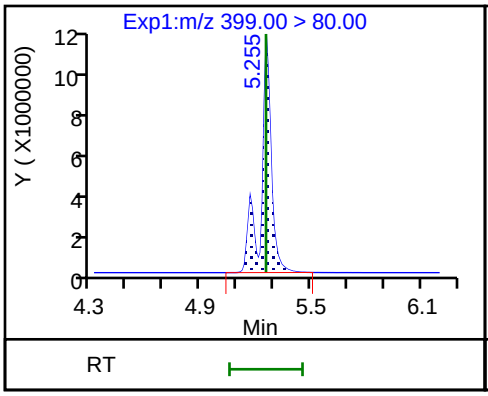
108 FBSEE



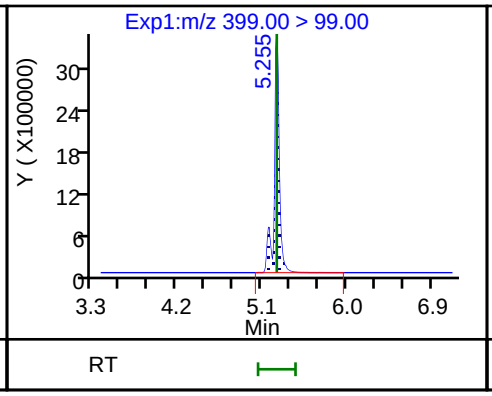
108 FBSEE



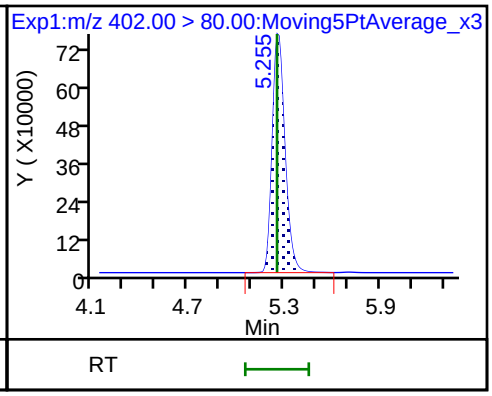
35 Perfluorohexanesulfonic acid



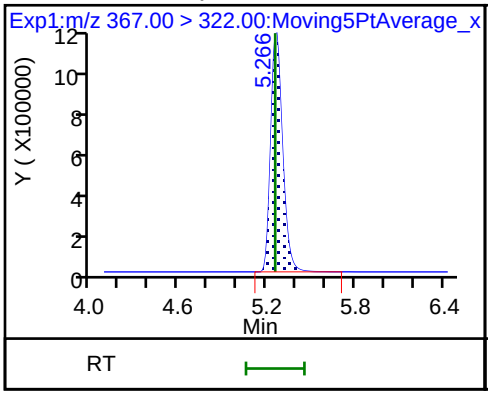
35 Perfluorohexanesulfonic acid



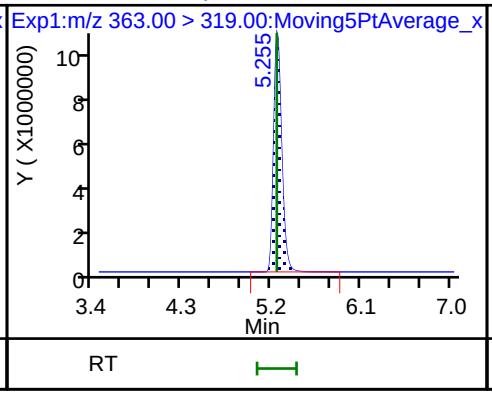
D 37 13C3 PFHxS



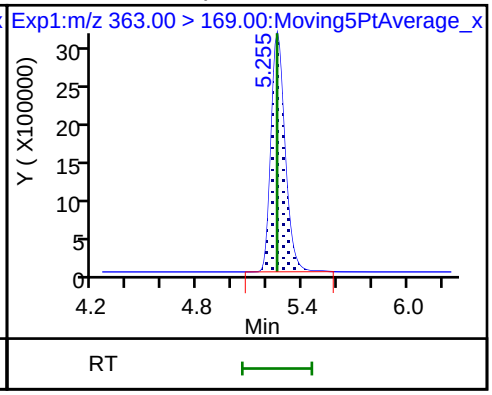
D 38 13C4 PFHpA



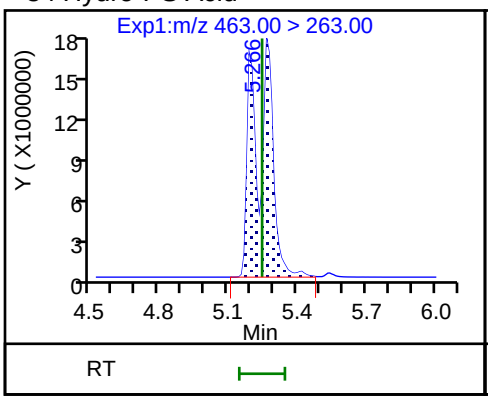
36 Perfluoroheptanoic acid



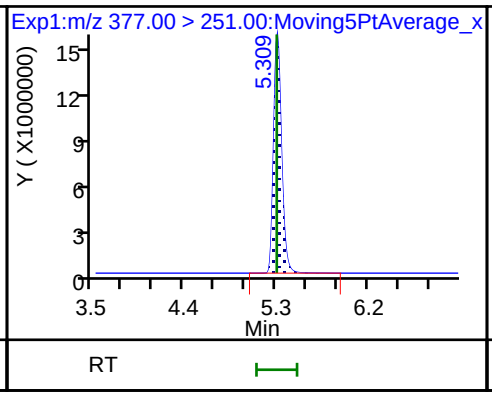
36 Perfluoroheptanoic acid



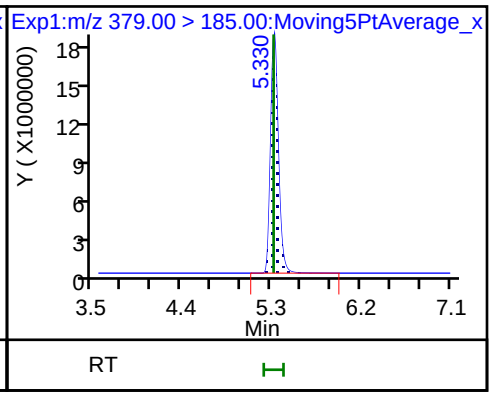
34 Hydro-PS Acid



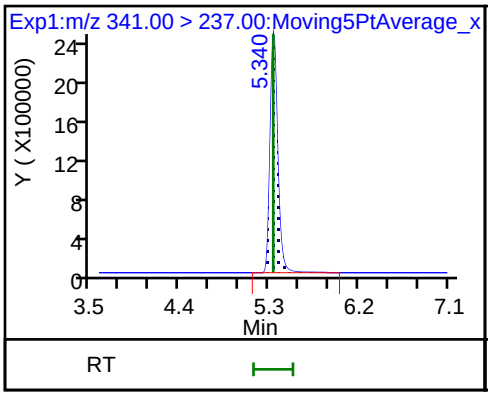
39 DONA



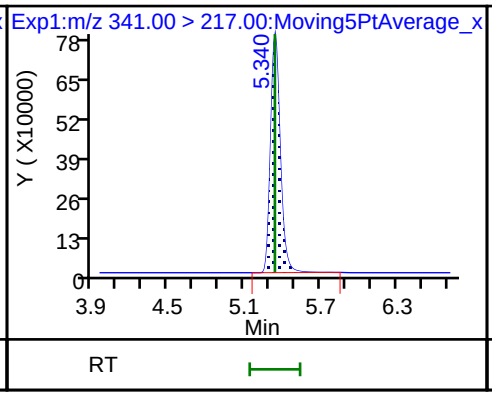
40 PFECA G



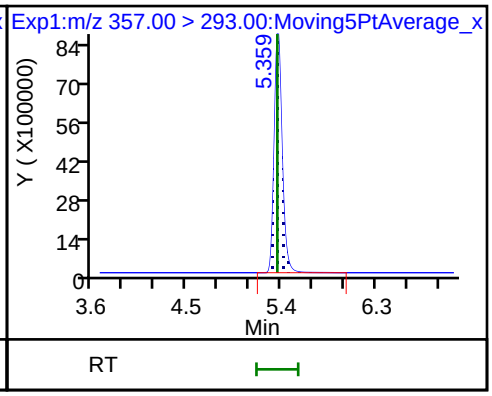
41 5:3 FTCA



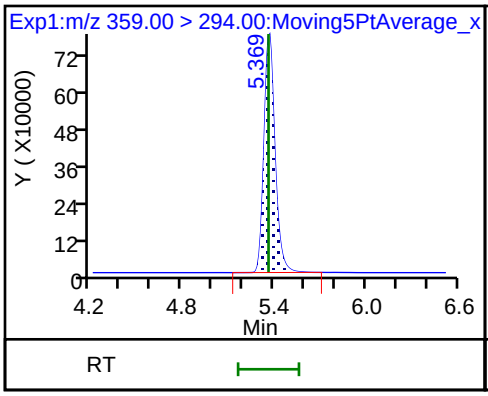
41 5:3 FTCA



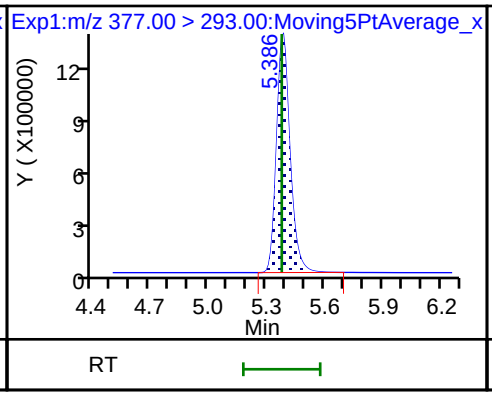
42 6:2 FTUCA



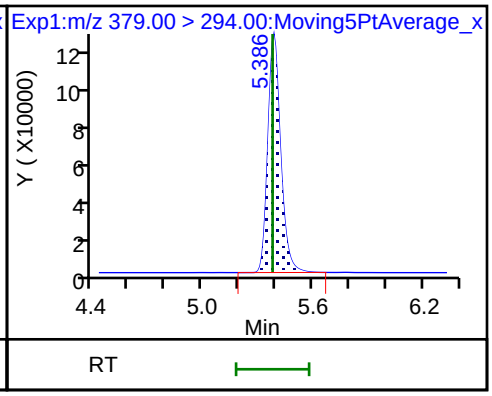
D 43 13C-6:2 FTUCA



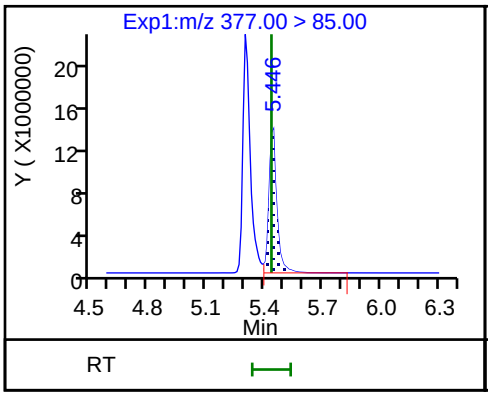
44 6:2 FTCA



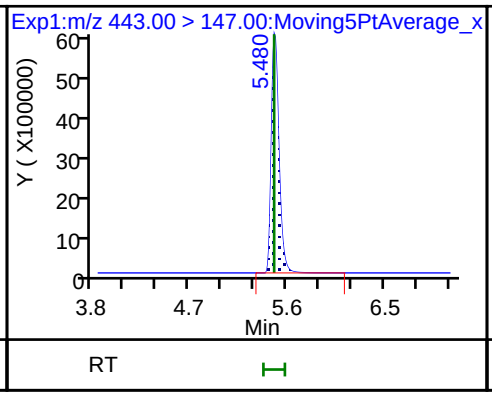
D 45 13C-6:2 FTCA



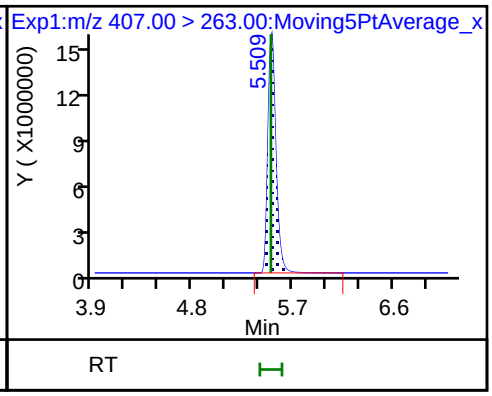
46 PFO4DA



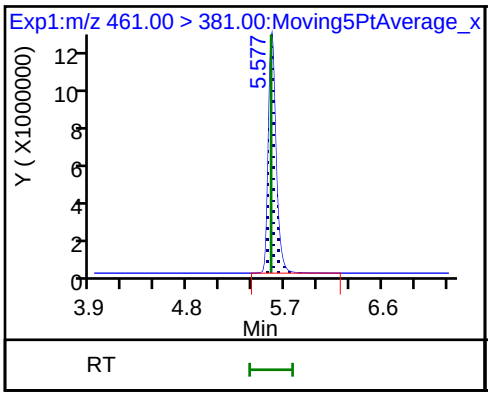
47 PS Acid



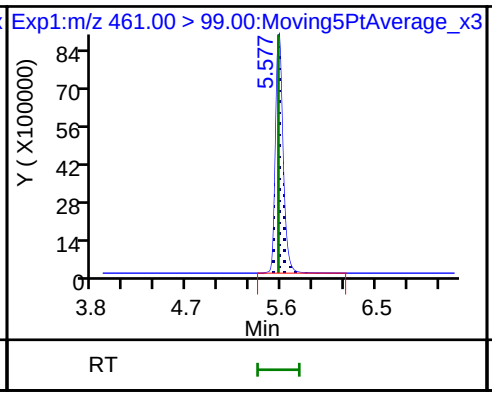
48 EVE Acid



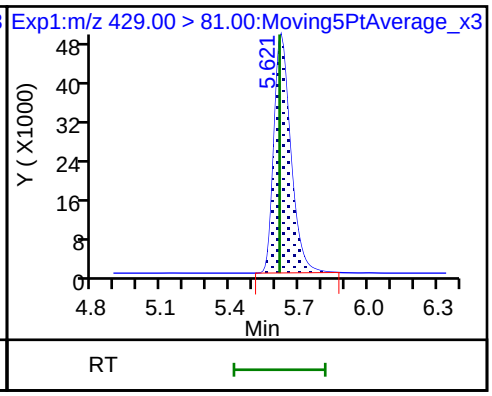
49 PFECHS



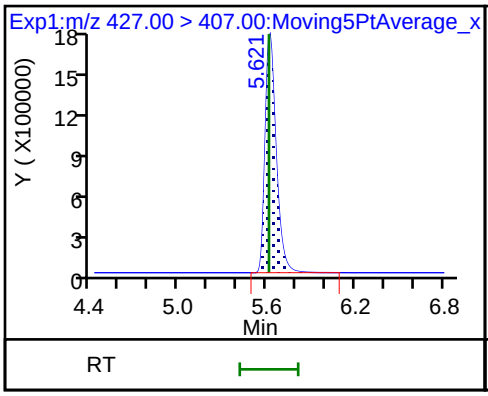
49 PFECHS



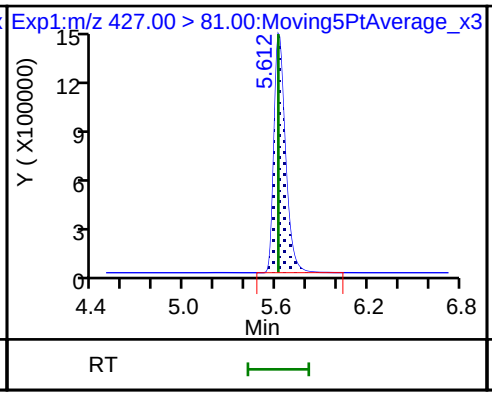
D 52 M2-6:2 FTS



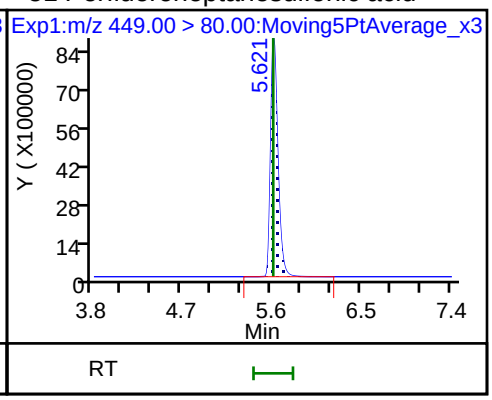
50 6:2 FTS



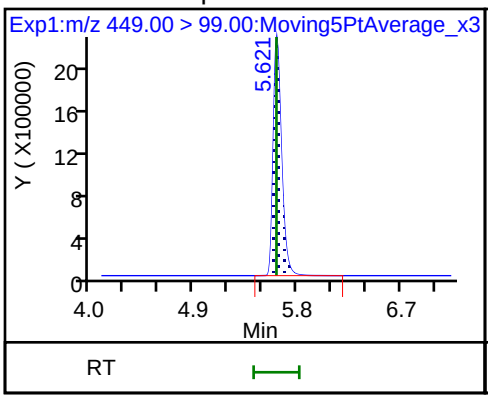
50 6:2 FTS



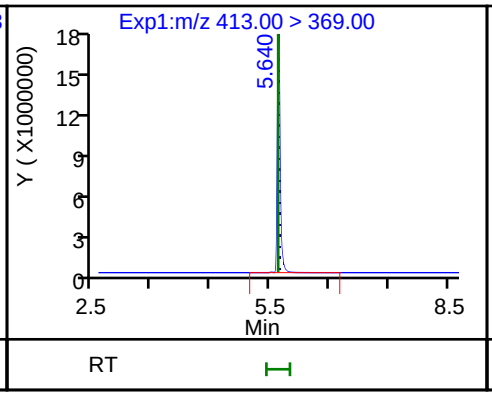
51 Perfluoroheptanesulfonic acid



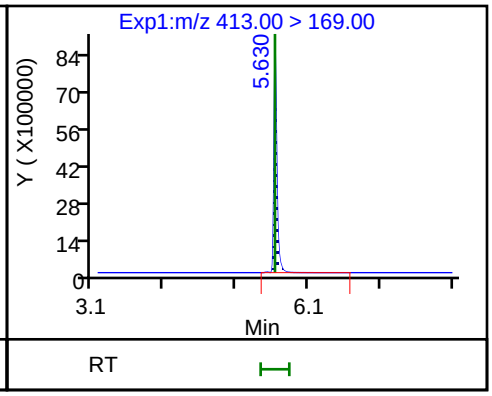
51 Perfluoroheptanesulfonic acid



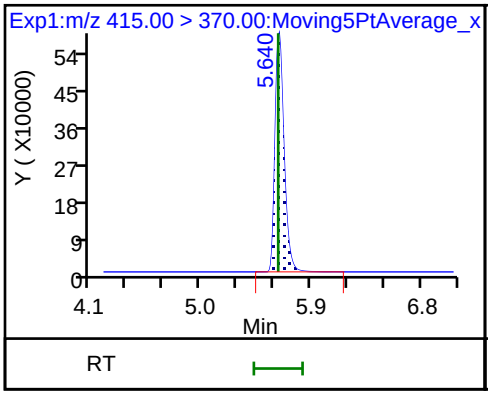
53 Perfluorooctanoic acid



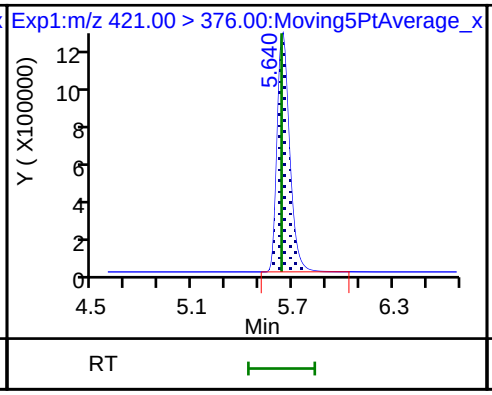
53 Perfluorooctanoic acid



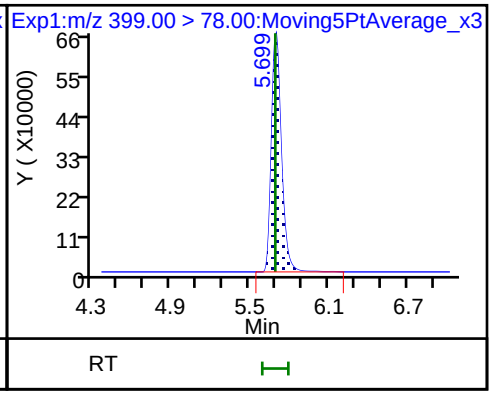
* 55 13C2 PFOA



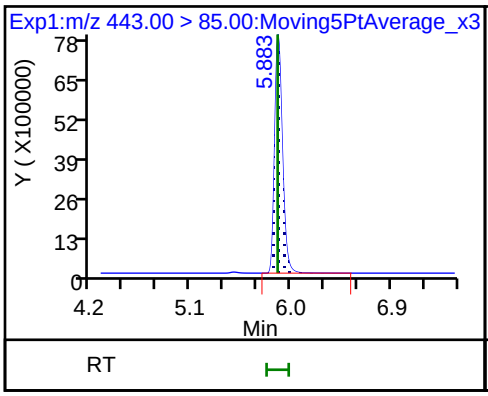
D 54 13C8 PFOA



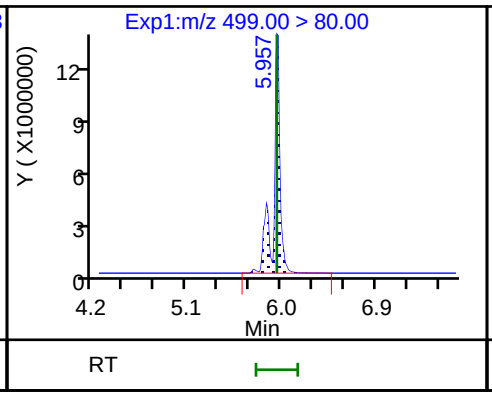
106 FHxSA



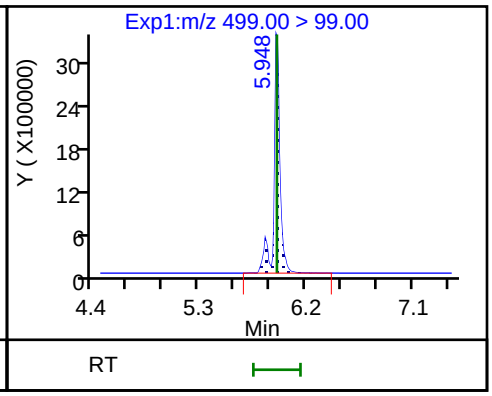
56 TAF



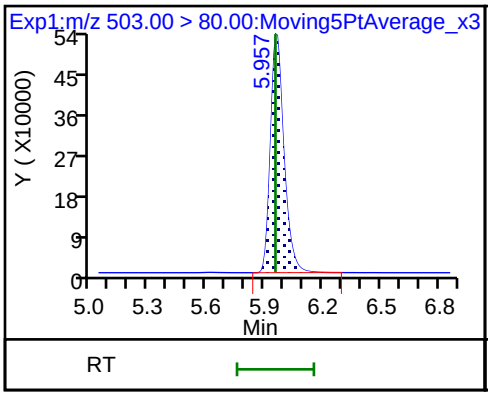
57 Perfluorooctanesulfonic acid



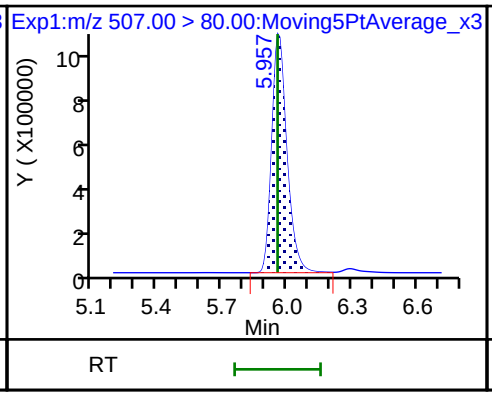
57 Perfluorooctanesulfonic acid



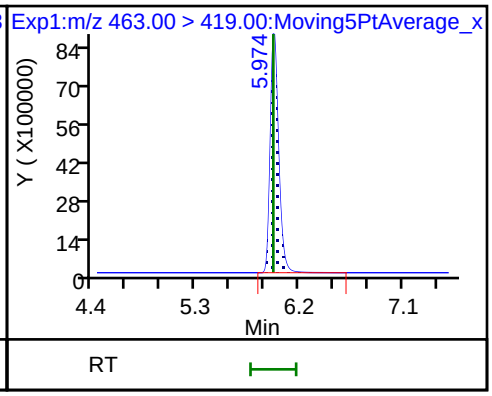
* 59 13C4 PFOS



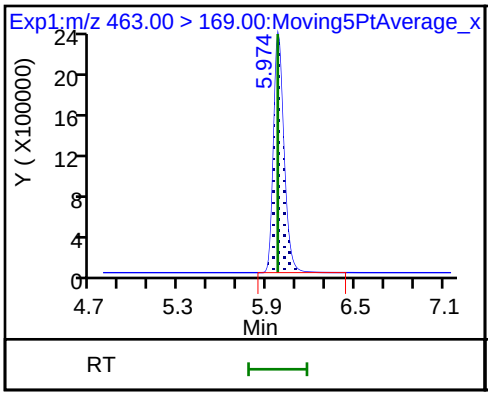
D 58 13C8 PFOS



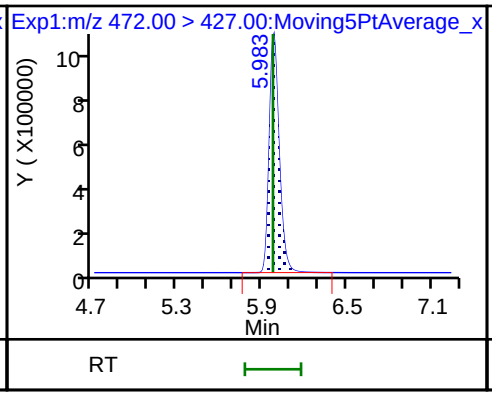
61 Perfluorononanoic acid



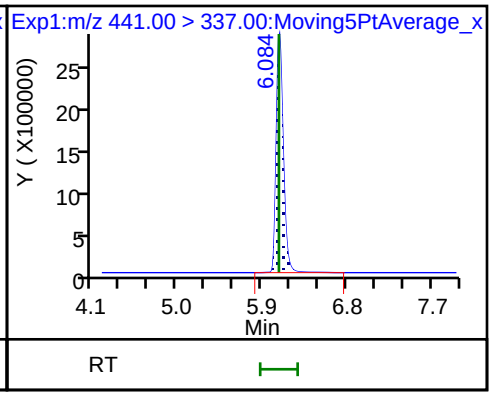
61 Perfluorononanoic acid



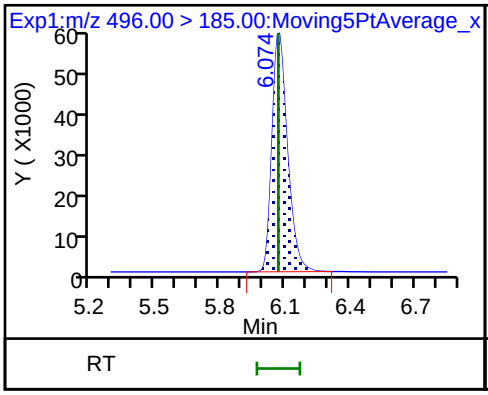
D 60 13C9 PFNA



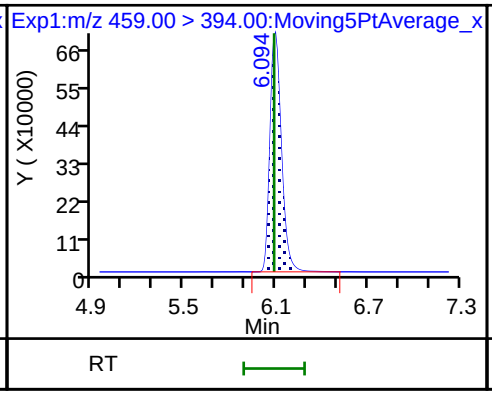
62 7:3 FTCA



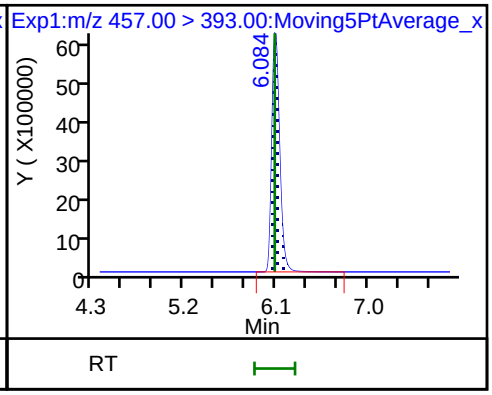
109 HFPO-TrA



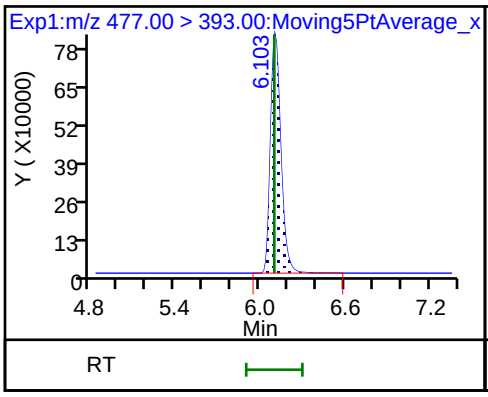
D 64 13C-8:2 FTUCA



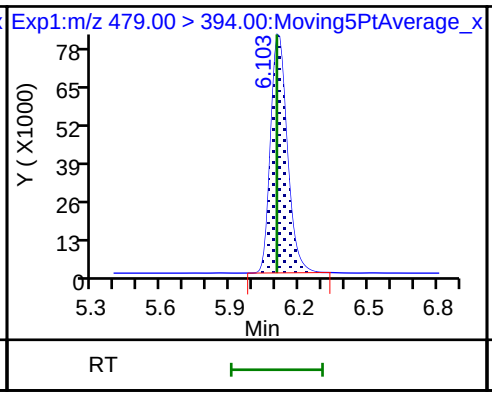
63 8:2 FTUCA



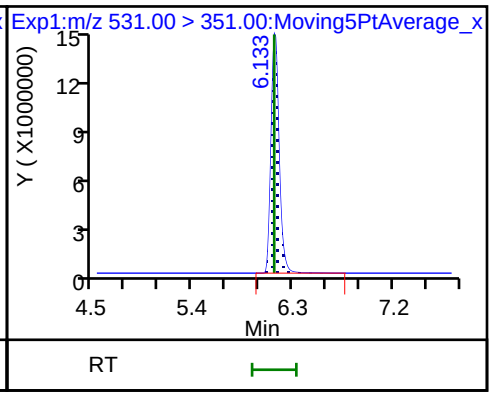
65 8:2 FTCA



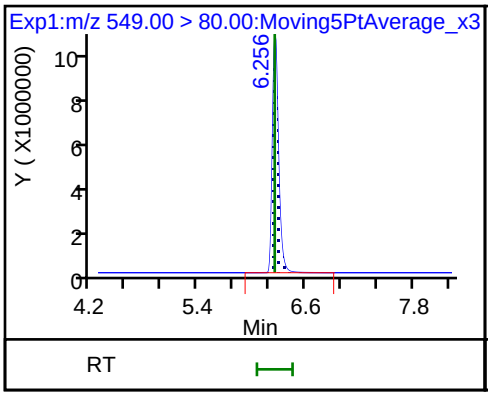
D 66 13C-8:2 FTCA



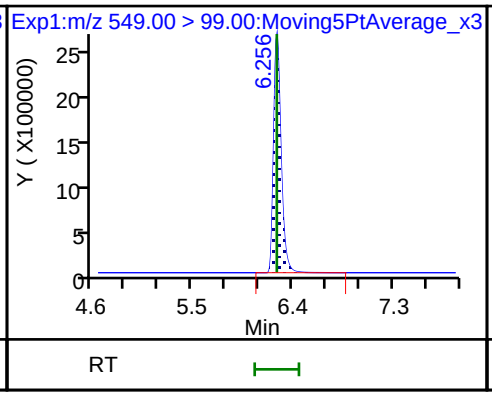
67 9ClFOS



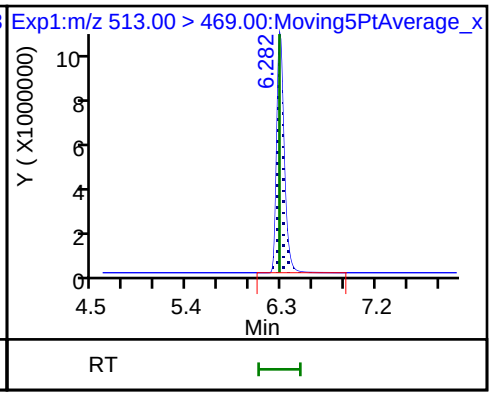
68 Perfluorononanesulfonic acid



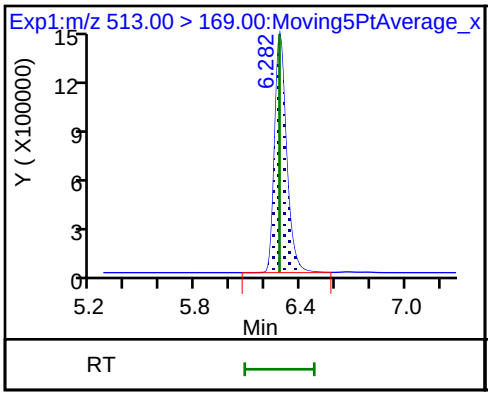
68 Perfluorononanesulfonic acid



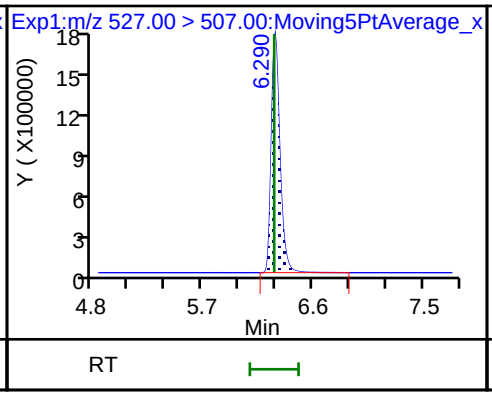
69 Perfluorodecanoic acid



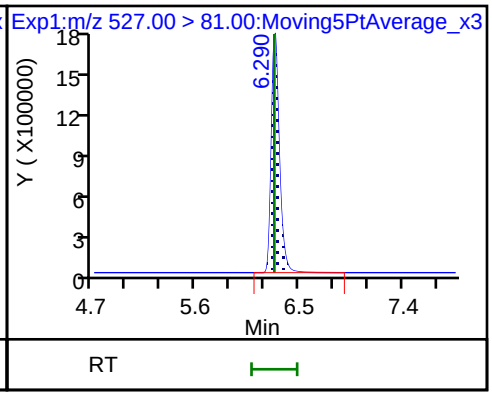
69 Perfluorodecanoic acid



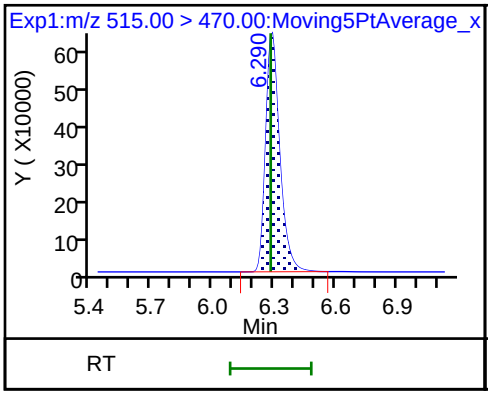
72 8:2 FTS



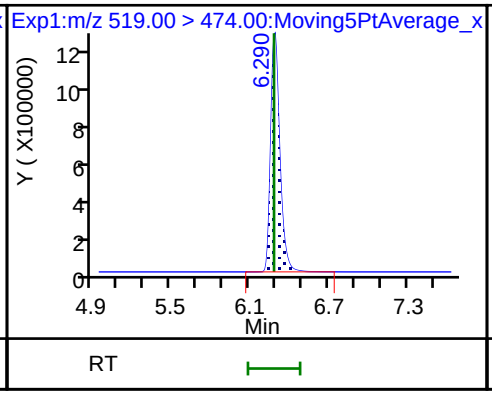
72 8:2 FTS



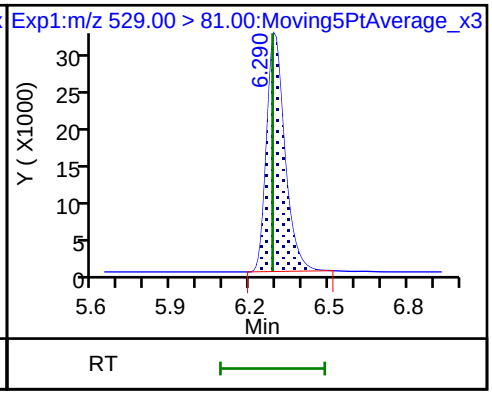
* 70 13C2 PFDA



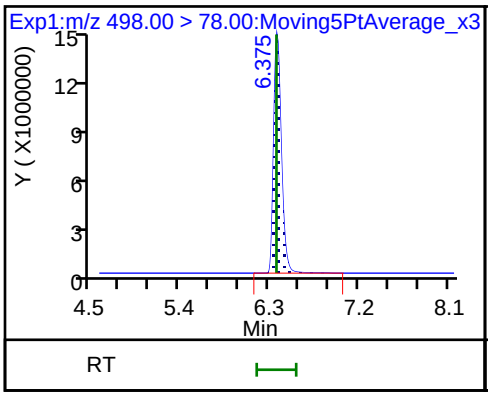
D 71 13C6 PFDA



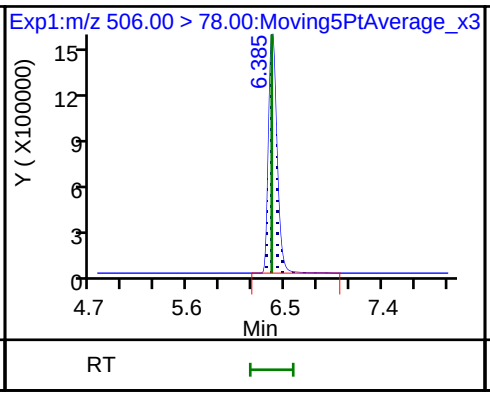
D 73 M2-8:2 FTS



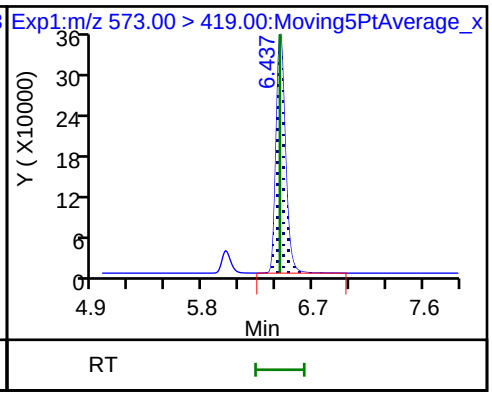
75 Perfluorooctanesulfonamide



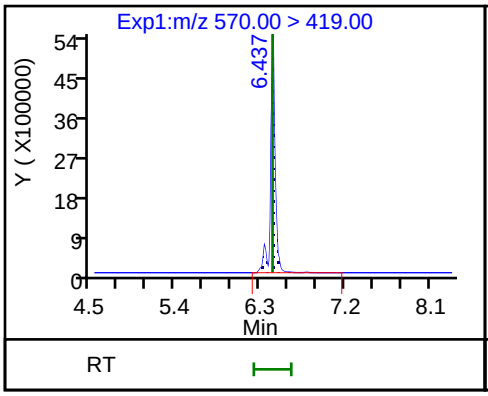
D 74 13C8 FOSA



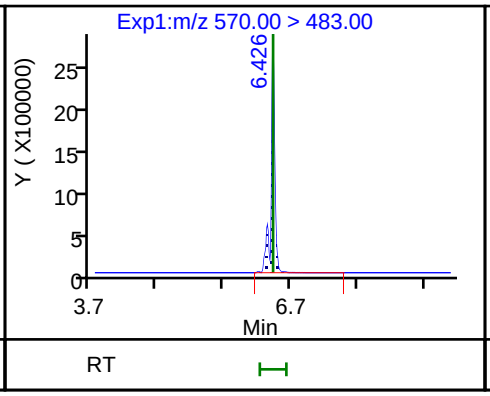
D 77 d3-NMeFOSAA



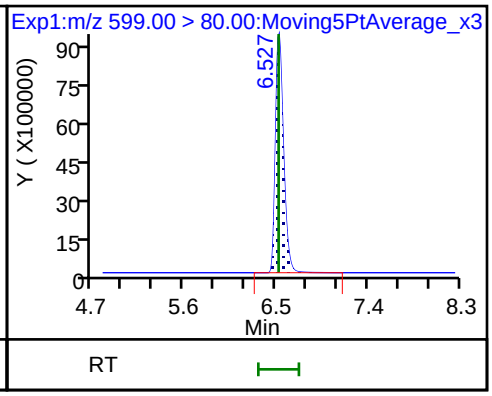
76 NMeFOSAA



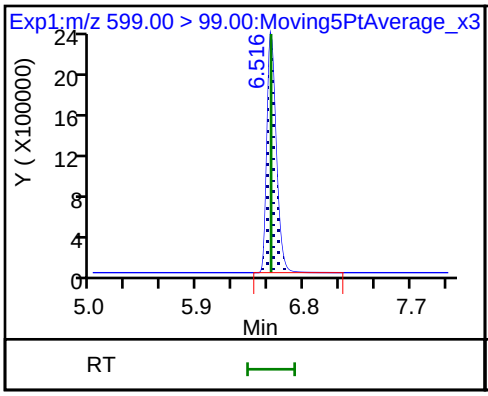
76 NMeFOSAA



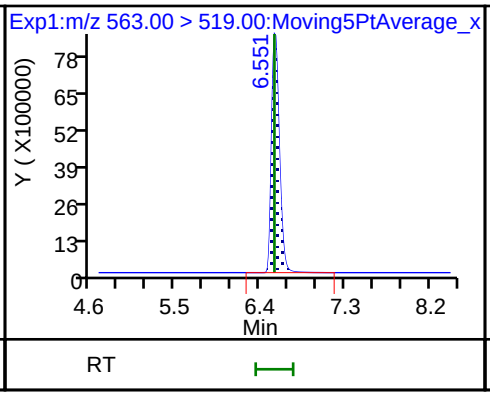
78 Perfluorodecanesulfonic acid



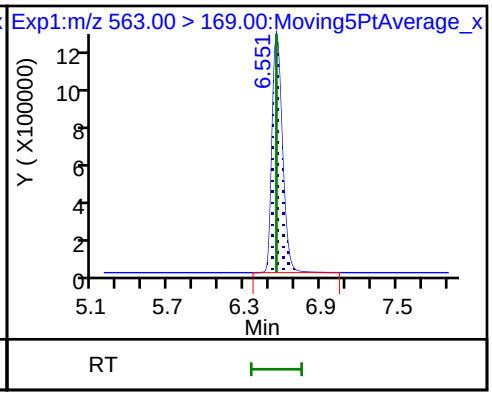
78 Perfluorodecanesulfonic acid



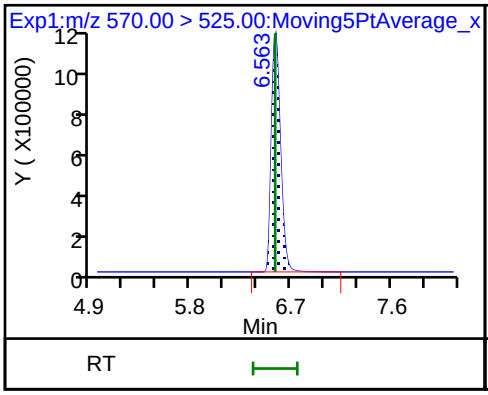
79 Perfluoroundecanoic acid



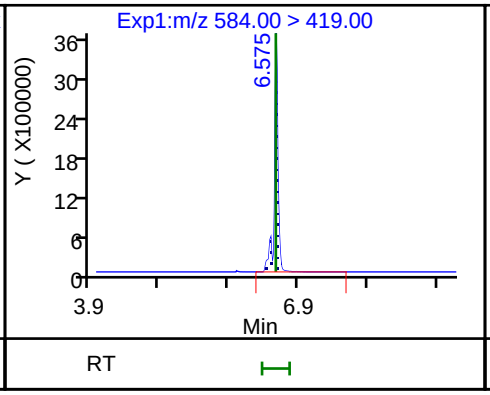
79 Perfluoroundecanoic acid



D 80 13C7 PFUnA



82 NEtFOSAA



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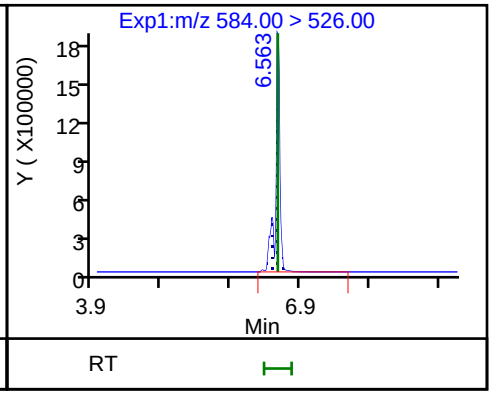
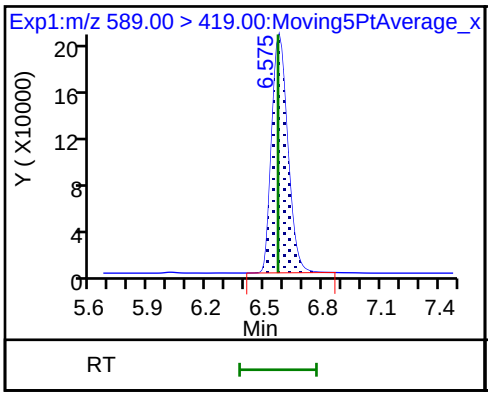
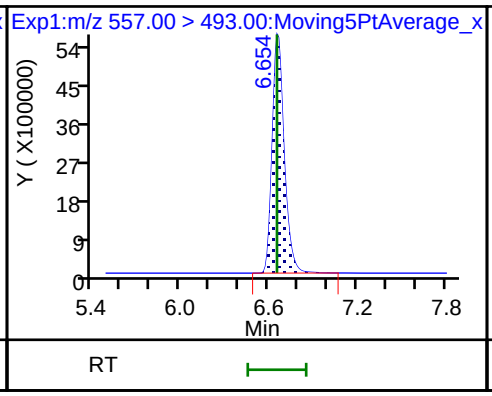


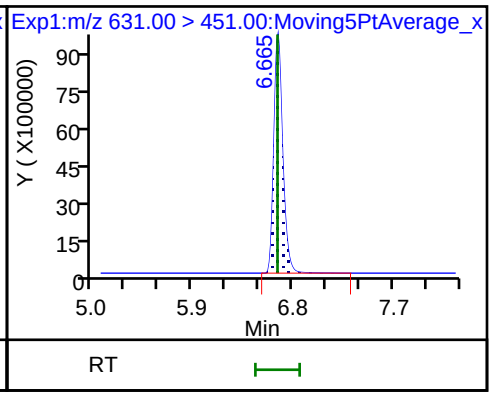
D 81 d5-NEtFOSAA



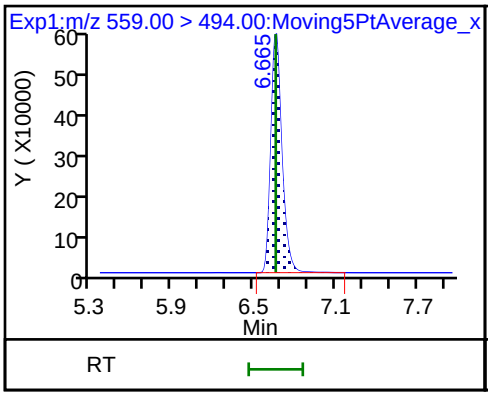
83 10:2 FTUCA



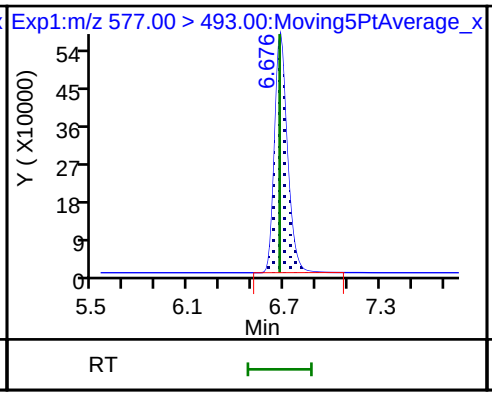
84 11ClFOS



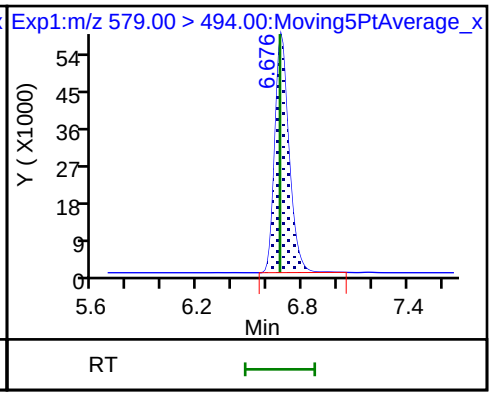
D 85 13C-10:2 FTUCA



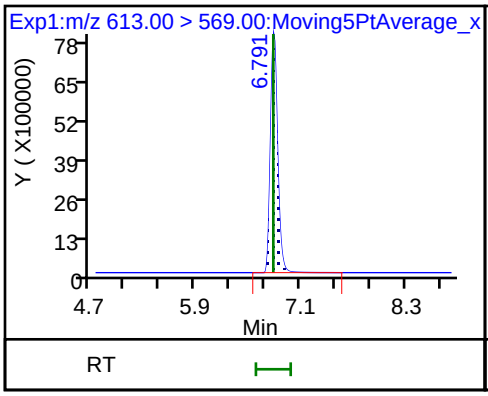
86 10:2 FTCA



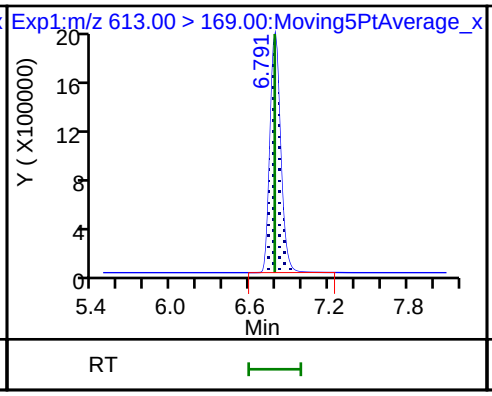
D 87 13C-10:2 FTCA



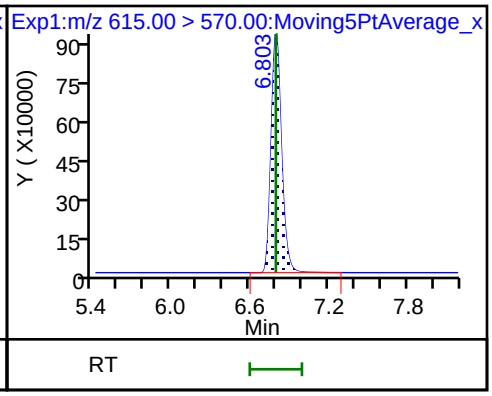
88 Perfluorododecanoic acid



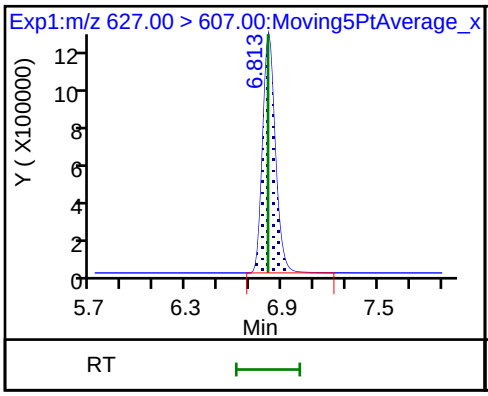
88 Perfluorododecanoic acid



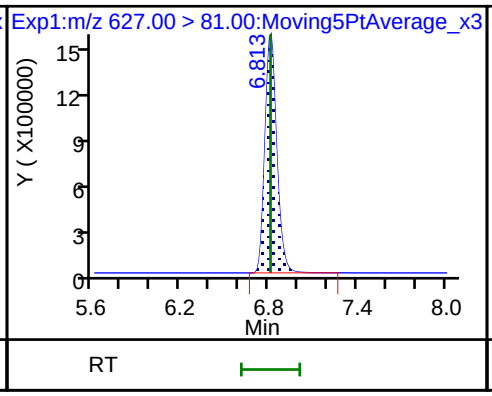
D 89 13C2-PFDoDA



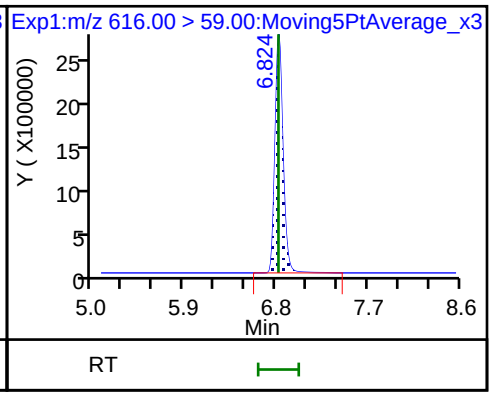
90 10:2 FTS



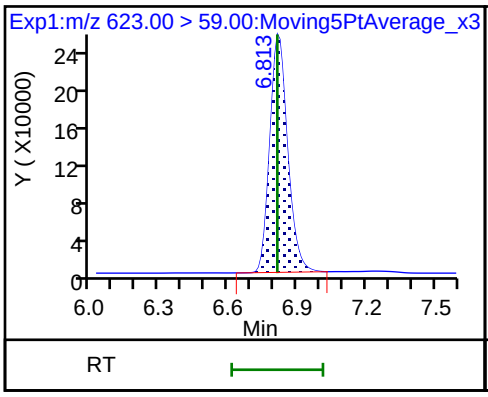
90 10:2 FTS



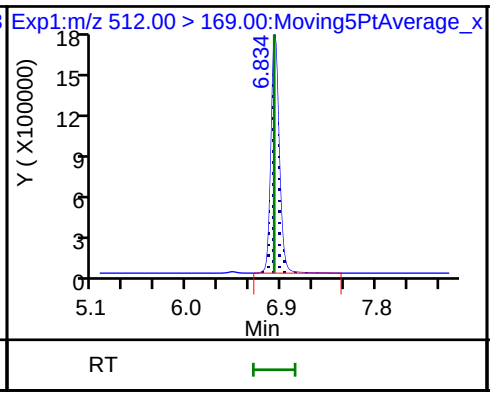
92 N-MeFOSE-M



D 91 d7-N-MeFOSE-M



94 NMeFOSA



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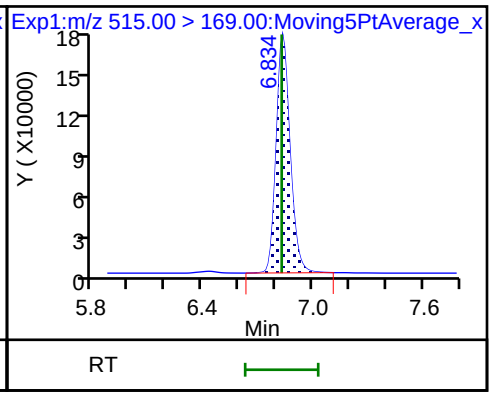
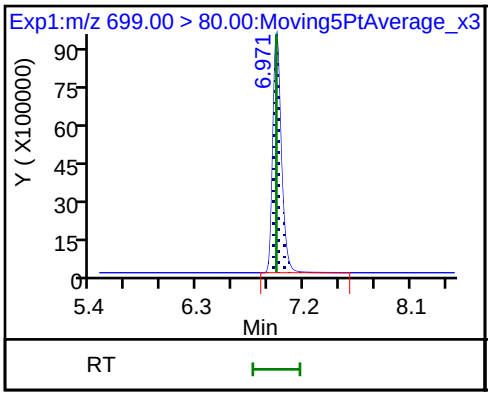
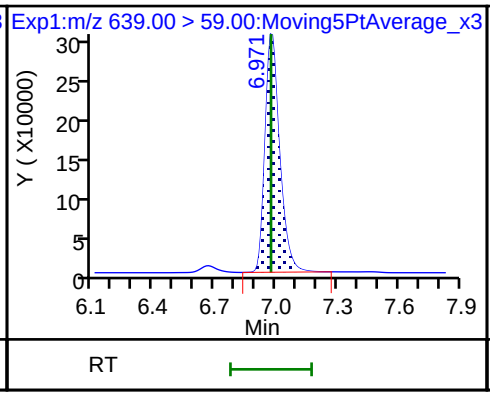


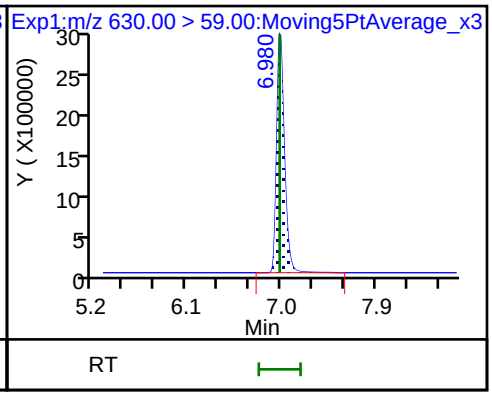
95 PFDoS



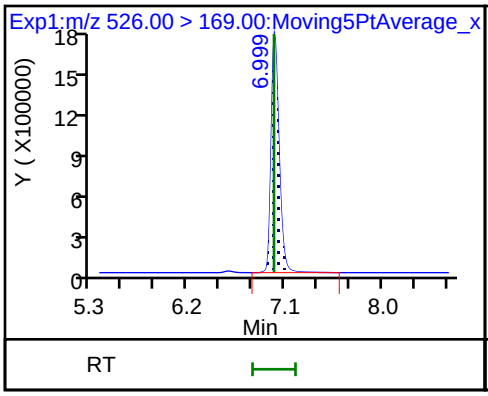
D 96 d9-N-EtFOSE-M



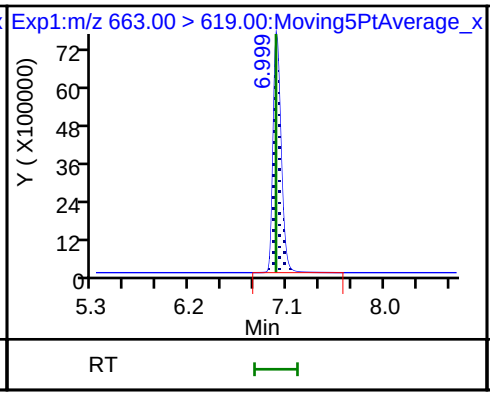
97 N-EtFOSE-M



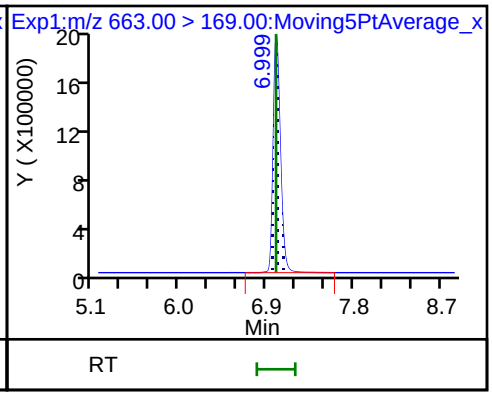
100 N-EtFOSA-M



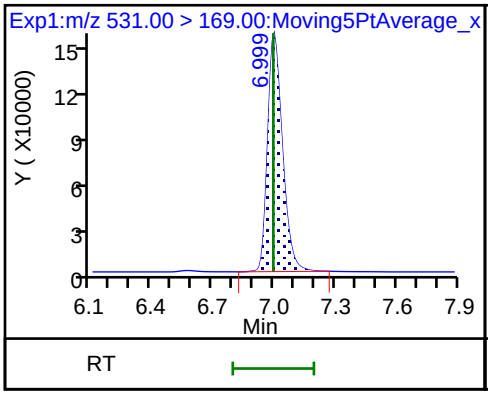
99 Perfluorotridecanoic acid



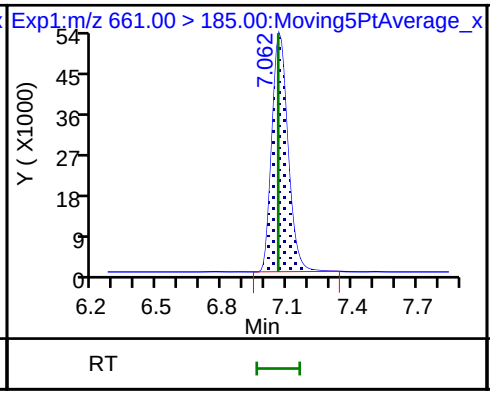
99 Perfluorotridecanoic acid



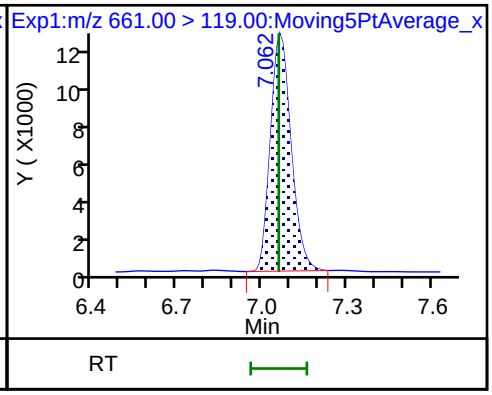
D 98 d5-NEtPFOSA



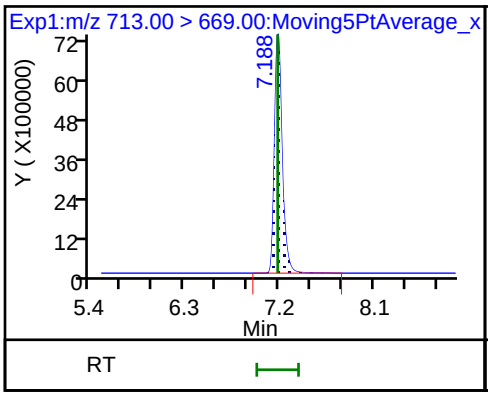
105 HFPOTeA



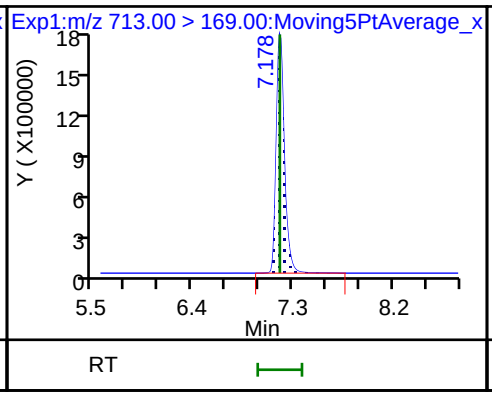
105 HFPOTeA



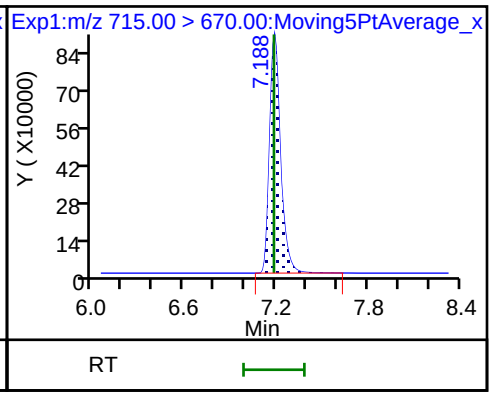
101 Perfluorotetradecanoic acid



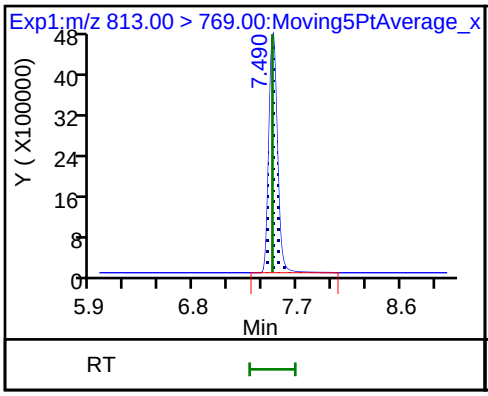
101 Perfluorotetradecanoic acid



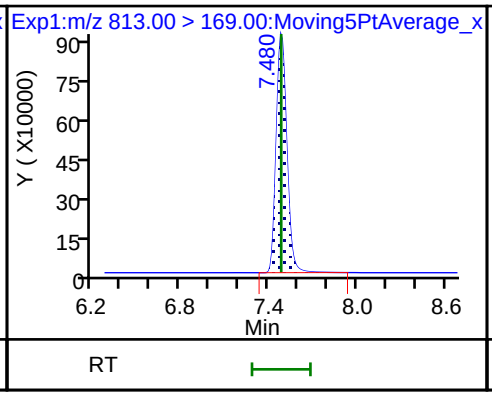
D 102 13C2 PFTeDA



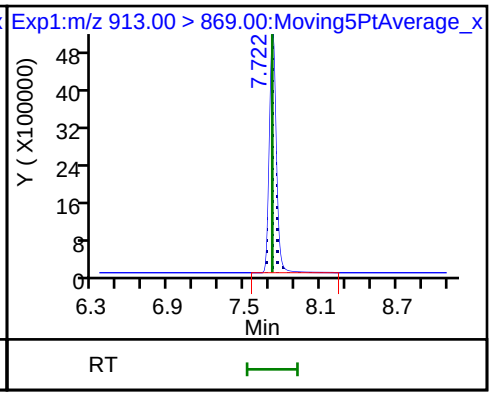
103 Perfluorohexadecanoic acid



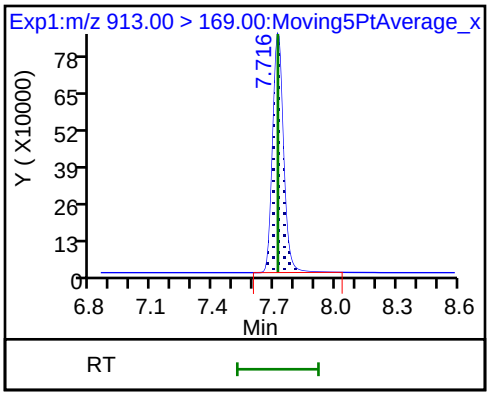
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Calibration / Sodium trifluoromethanesulfonate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

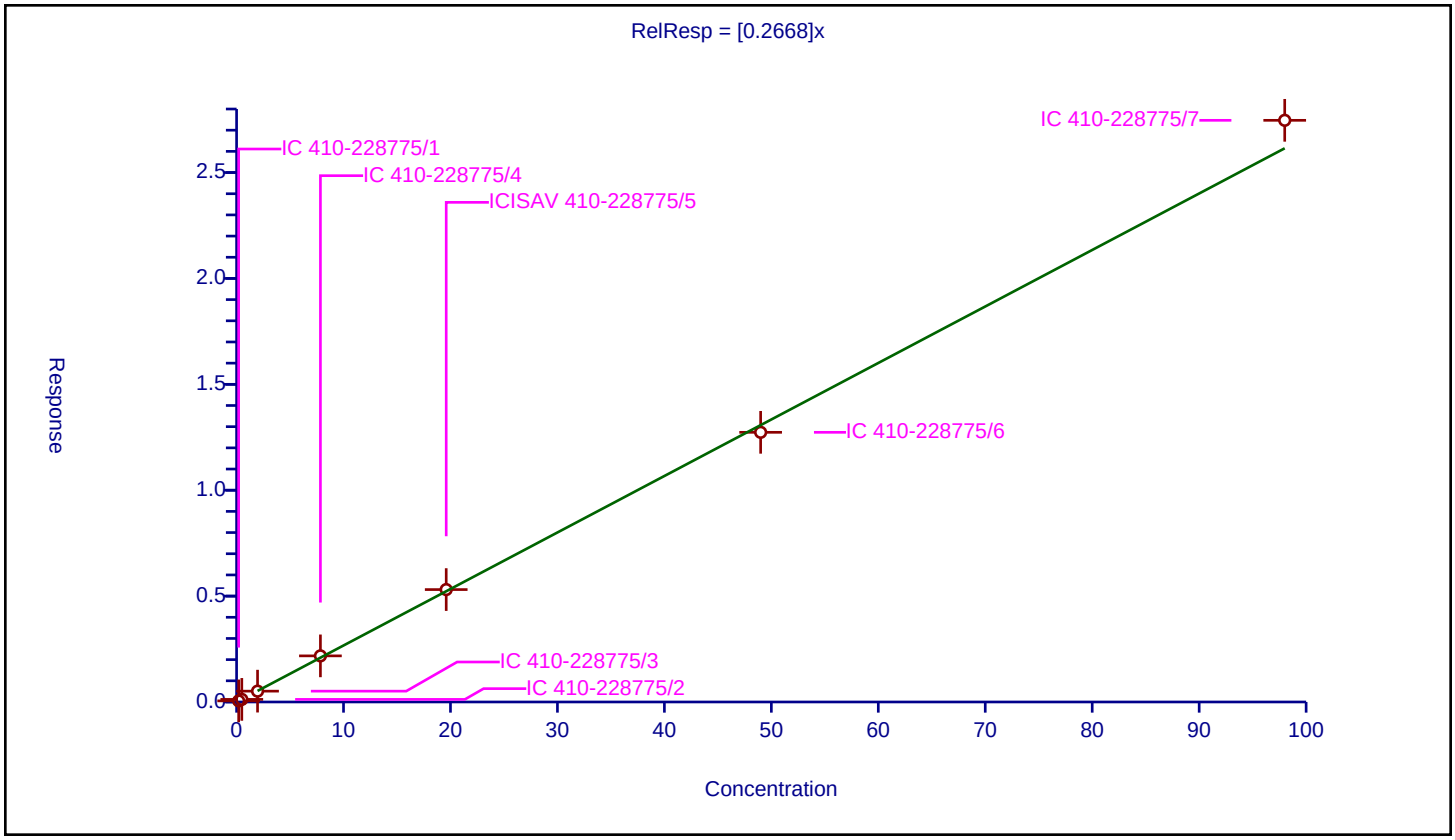
Curve Coefficients

Intercept:	0
Slope:	0.2668

Error Coefficients

Standard Error:	8680000
Relative Standard Error:	3.9
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.196	0.052296	10.0	8309826.0	0.266816	Y
2	IC 410-228775/2	0.49	0.123027	10.0	7872169.0	0.251076	Y
3	IC 410-228775/3	1.96	0.511557	10.0	6442139.0	0.260998	Y
4	IC 410-228775/4	7.84	2.177207	10.0	6202588.0	0.277705	Y
5	ICISAV 410-228775/5	19.6	5.3077	10.0	5696515.0	0.270801	Y
6	IC 410-228775/6	49.0	12.733454	10.0	7917637.0	0.259866	Y
7	IC 410-228775/7	98.0	27.466698	10.0	6707258.0	0.280272	Y



Calibration / MTP

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

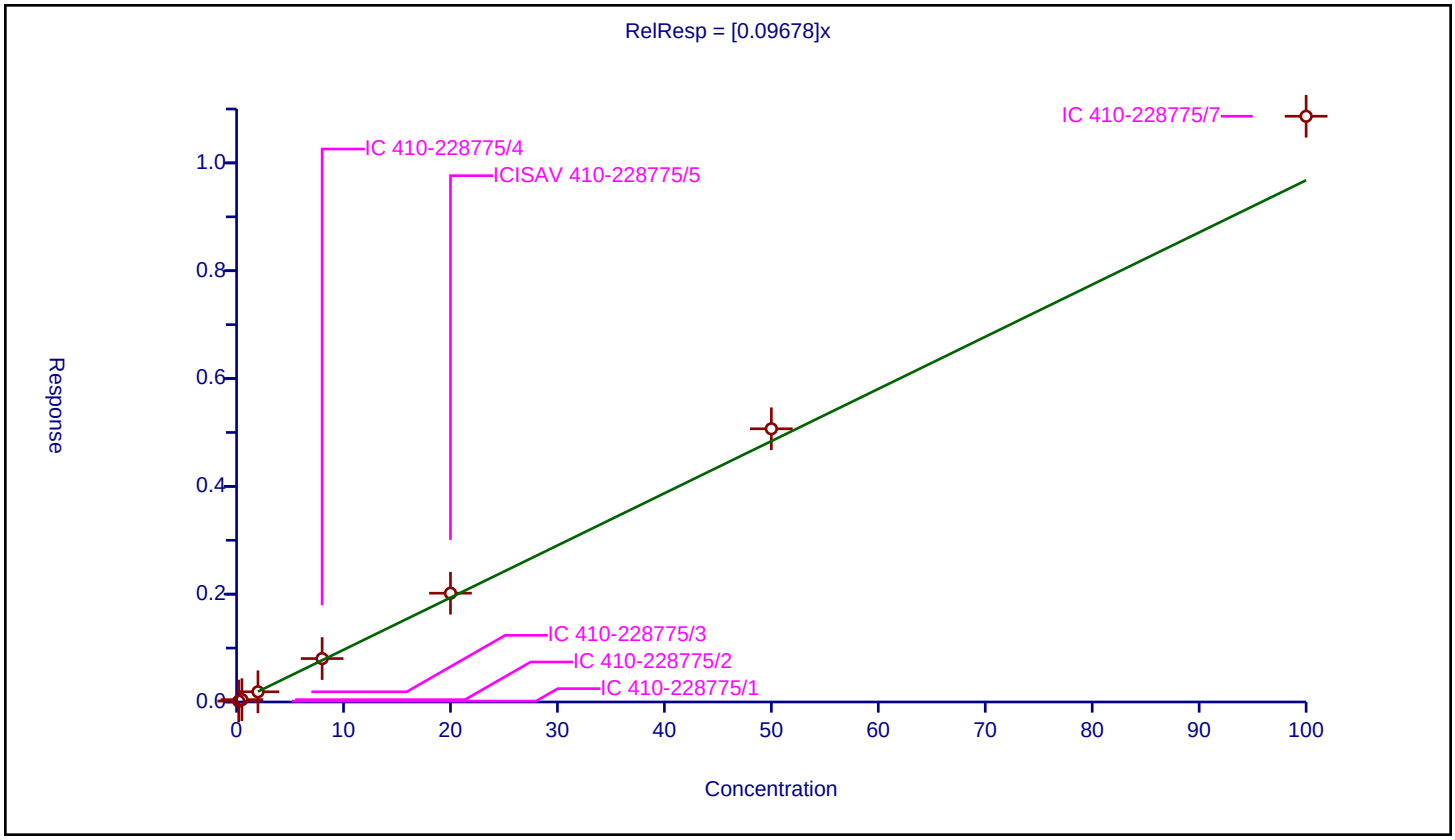
Curve Coefficients

Intercept:	0
Slope:	0.09678

Error Coefficients

Standard Error:	3440000
Relative Standard Error:	8.9
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.016981	10.0	8309826.0	0.084906	Y
2	IC 410-228775/2	0.5	0.043235	10.0	7872169.0	0.086469	Y
3	IC 410-228775/3	2.0	0.188992	10.0	6442139.0	0.094496	Y
4	IC 410-228775/4	8.0	0.805538	10.0	6202588.0	0.100692	Y
5	ICISAV 410-228775/5	20.0	2.018127	10.0	5696515.0	0.100906	Y
6	IC 410-228775/6	50.0	5.068277	10.0	7917637.0	0.101366	Y
7	IC 410-228775/7	100.0	10.865844	10.0	6707258.0	0.108658	Y



Calibration / PPF Acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

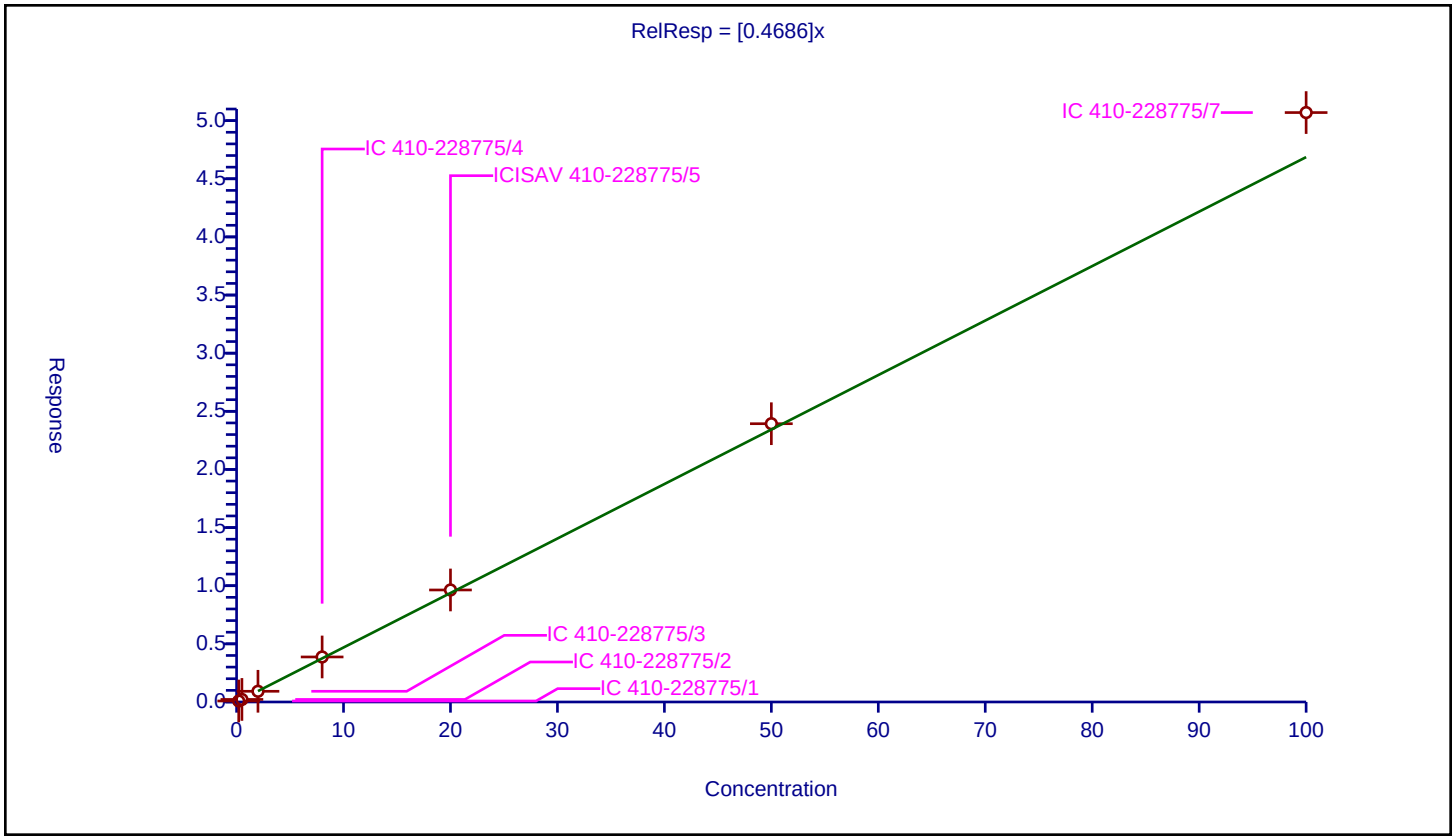
Curve Coefficients

Intercept:	0
Slope:	0.4686

Error Coefficients

Standard Error:	16100000
Relative Standard Error:	5.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.08621	10.0	8309826.0	0.43105	Y
2	IC 410-228775/2	0.5	0.218974	10.0	7872169.0	0.437948	Y
3	IC 410-228775/3	2.0	0.919749	10.0	6442139.0	0.459874	Y
4	IC 410-228775/4	8.0	3.872679	10.0	6202588.0	0.484085	Y
5	ICISAV 410-228775/5	20.0	9.633831	10.0	5696515.0	0.481692	Y
6	IC 410-228775/6	50.0	23.934973	10.0	7917637.0	0.478699	Y
7	IC 410-228775/7	100.0	50.694567	10.0	6707258.0	0.506946	Y



Calibration / PFMOAA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

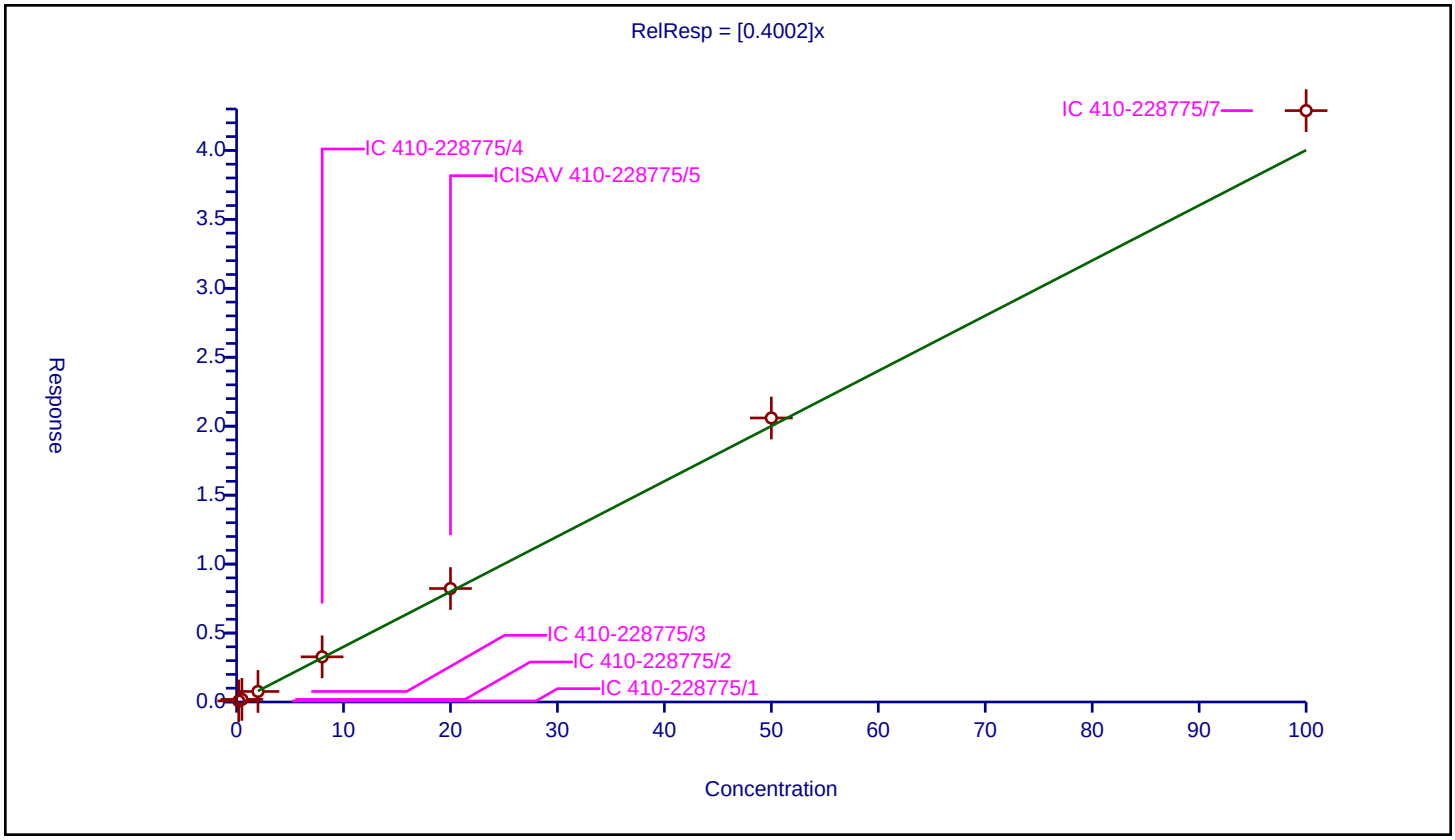
Curve Coefficients

Intercept:	0
Slope:	0.4002

Error Coefficients

Standard Error:	13700000
Relative Standard Error:	5.0
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.076068	10.0	8309826.0	0.380339	Y
2	IC 410-228775/2	0.5	0.188783	10.0	7872169.0	0.377566	Y
3	IC 410-228775/3	2.0	0.763358	10.0	6442139.0	0.381679	Y
4	IC 410-228775/4	8.0	3.274401	10.0	6202588.0	0.4093	Y
5	ICISAV 410-228775/5	20.0	8.22898	10.0	5696515.0	0.411449	Y
6	IC 410-228775/6	50.0	20.594594	10.0	7917637.0	0.411892	Y
7	IC 410-228775/7	100.0	42.884605	10.0	6707258.0	0.428846	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

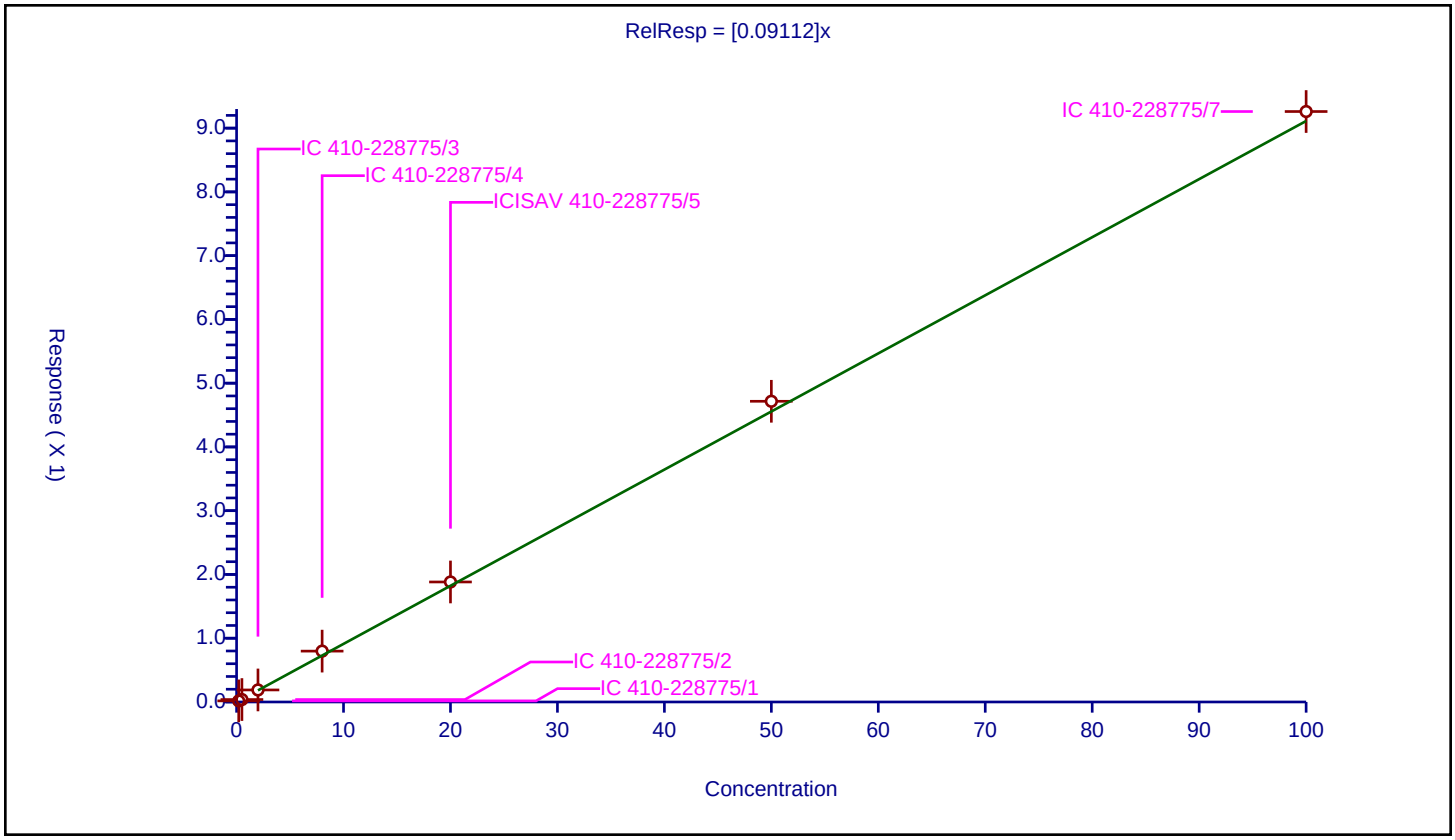
Curve Coefficients

Intercept:	0
Slope:	0.09112

Error Coefficients

Standard Error:	3000000
Relative Standard Error:	8.3
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.017282	10.0	8309826.0	0.08641	Y
2	IC 410-228775/2	0.5	0.038156	10.0	7872169.0	0.076312	Y
3	IC 410-228775/3	2.0	0.188666	10.0	6442139.0	0.094333	Y
4	IC 410-228775/4	8.0	0.797714	10.0	6202588.0	0.099714	Y
5	ICISAV 410-228775/5	20.0	1.882446	10.0	5696515.0	0.094122	Y
6	IC 410-228775/6	50.0	4.716052	10.0	7917637.0	0.094321	Y
7	IC 410-228775/7	100.0	9.260799	10.0	6707258.0	0.092608	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

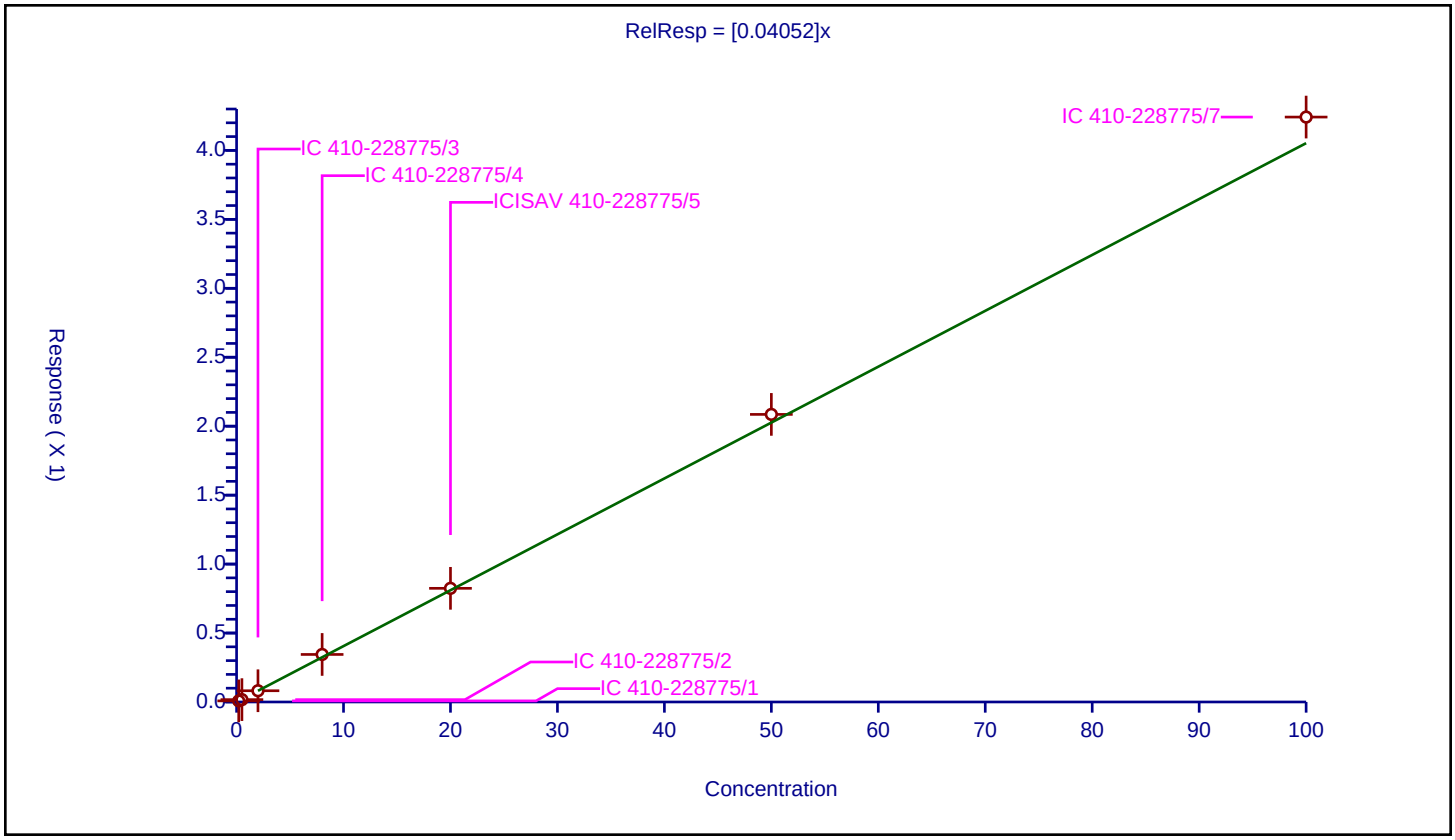
Curve Coefficients

Intercept:	0
Slope:	0.04052

Error Coefficients

Standard Error:	1130000
Relative Standard Error:	7.2
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.008064	9.3	6243052.0	0.040318	Y
2	IC 410-228775/2	0.5	0.017111	9.3	5624354.0	0.034221	Y
3	IC 410-228775/3	2.0	0.081419	9.3	4879064.0	0.04071	Y
4	IC 410-228775/4	8.0	0.344615	9.3	4772536.0	0.043077	Y
5	ICISAV 410-228775/5	20.0	0.824175	9.3	4529073.0	0.041209	Y
6	IC 410-228775/6	50.0	2.085499	9.3	6097979.0	0.04171	Y
7	IC 410-228775/7	100.0	4.241527	9.3	5188819.0	0.042415	Y



Calibration / Hydrolyzed PSDA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

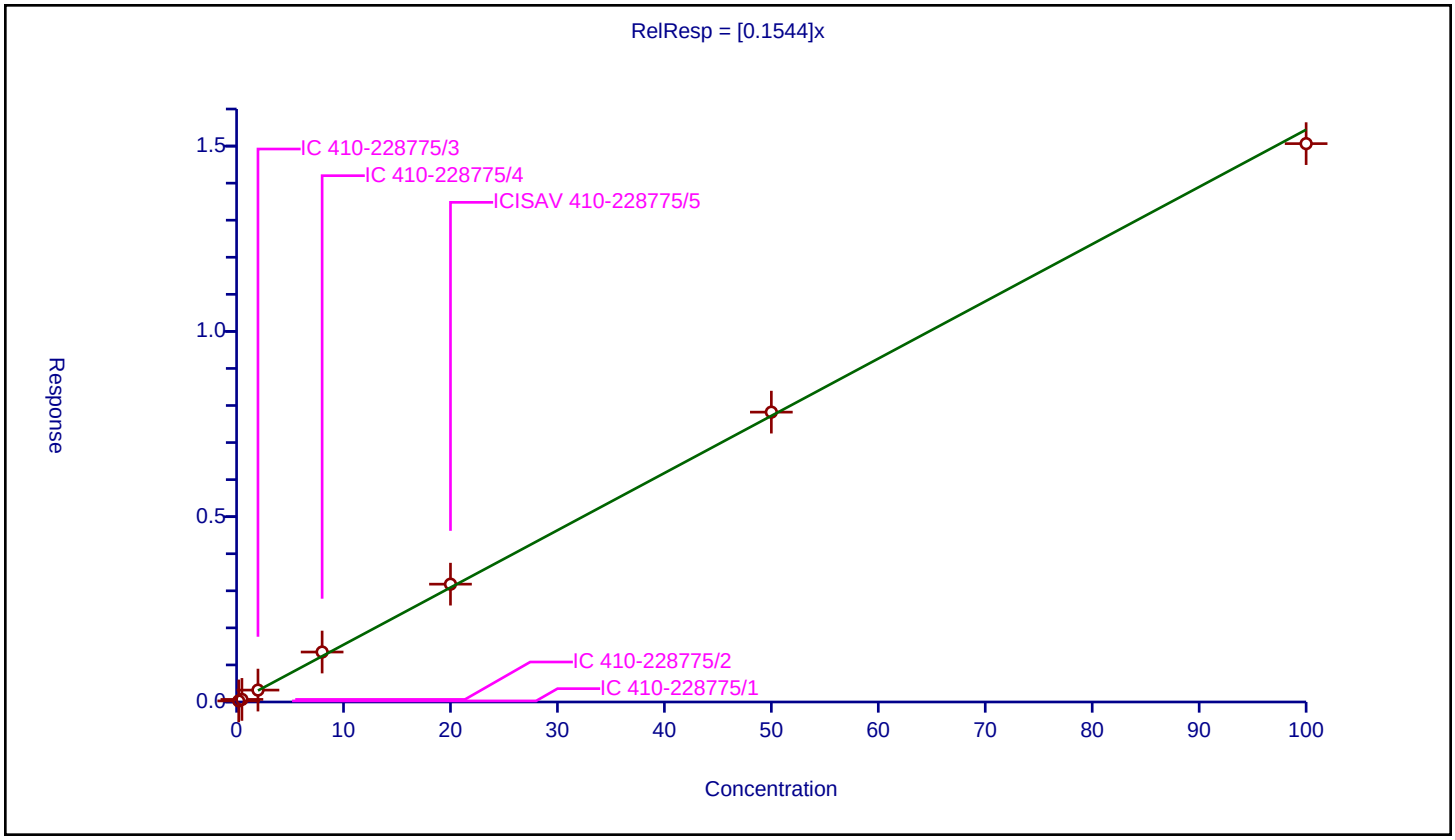
Curve Coefficients

Intercept:	0
Slope:	0.1544

Error Coefficients

Standard Error:	4080000
Relative Standard Error:	6.4
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.029352	9.3	6243052.0	0.146761	Y
2	IC 410-228775/2	0.5	0.069448	9.3	5624354.0	0.138896	Y
3	IC 410-228775/3	2.0	0.321375	9.3	4879064.0	0.160687	Y
4	IC 410-228775/4	8.0	1.348315	9.3	4772536.0	0.168539	Y
5	ICISAV 410-228775/5	20.0	3.179417	9.3	4529073.0	0.158971	Y
6	IC 410-228775/6	50.0	7.821103	9.3	6097979.0	0.156422	Y
7	IC 410-228775/7	100.0	15.066361	9.3	5188819.0	0.150664	Y



Calibration / Perfluorobutanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

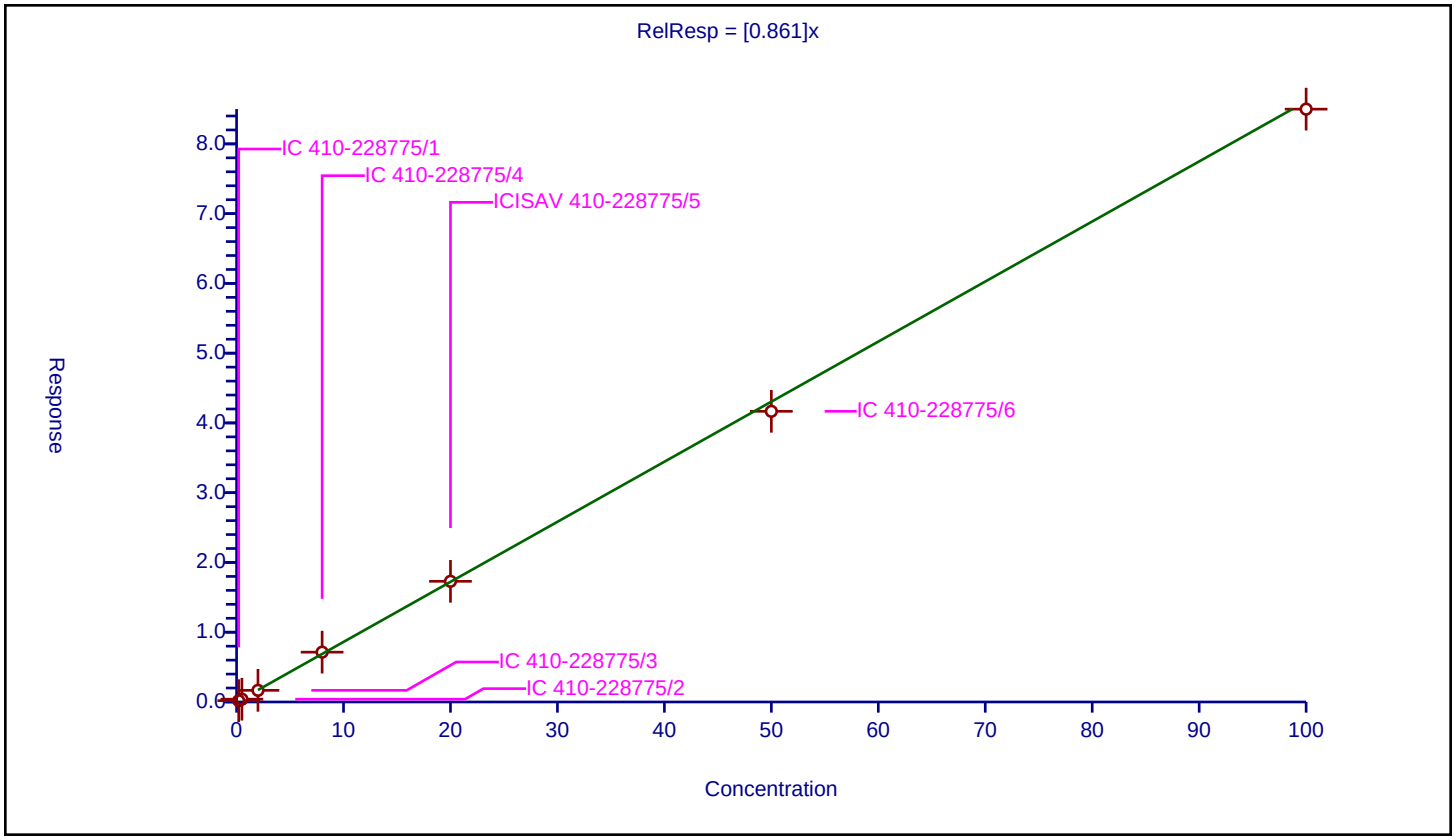
Curve Coefficients

Intercept:	0
Slope:	0.861

Error Coefficients

Standard Error:	27200000
Relative Standard Error:	5.7
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.190176	10.0	8309826.0	0.95088	Y
2	IC 410-228775/2	0.5	0.400613	10.0	7872169.0	0.801225	Y
3	IC 410-228775/3	2.0	1.66706	10.0	6442139.0	0.83353	Y
4	IC 410-228775/4	8.0	7.143947	10.0	6202588.0	0.892993	Y
5	ICISAV 410-228775/5	20.0	17.297902	10.0	5696515.0	0.864895	Y
6	IC 410-228775/6	50.0	41.665973	10.0	7917637.0	0.833319	Y
7	IC 410-228775/7	100.0	84.982185	10.0	6707258.0	0.849822	Y



Calibration / PMPA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

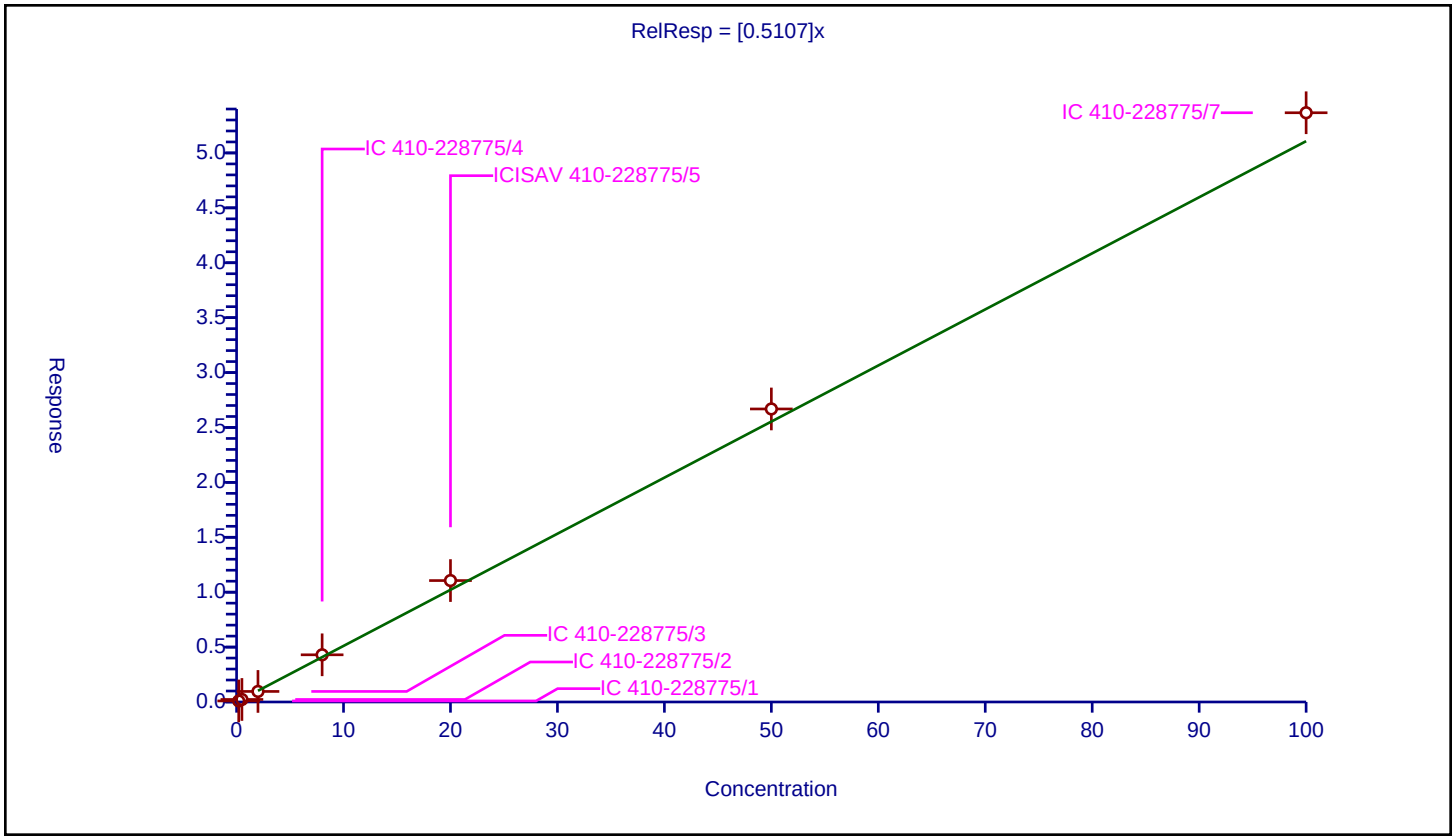
Curve Coefficients

Intercept:	0
Slope:	0.5107

Error Coefficients

Standard Error:	17300000
Relative Standard Error:	7.4
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.094853	10.0	8309826.0	0.474264	Y
2	IC 410-228775/2	0.5	0.229869	10.0	7872169.0	0.459739	Y
3	IC 410-228775/3	2.0	0.96101	10.0	6442139.0	0.480505	Y
4	IC 410-228775/4	8.0	4.298012	10.0	6202588.0	0.537252	Y
5	ICISAV 410-228775/5	20.0	11.056702	10.0	5696515.0	0.552835	Y
6	IC 410-228775/6	50.0	26.685751	10.0	7917637.0	0.533715	Y
7	IC 410-228775/7	100.0	53.6597	10.0	6707258.0	0.536597	Y



Calibration / PFPrS

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

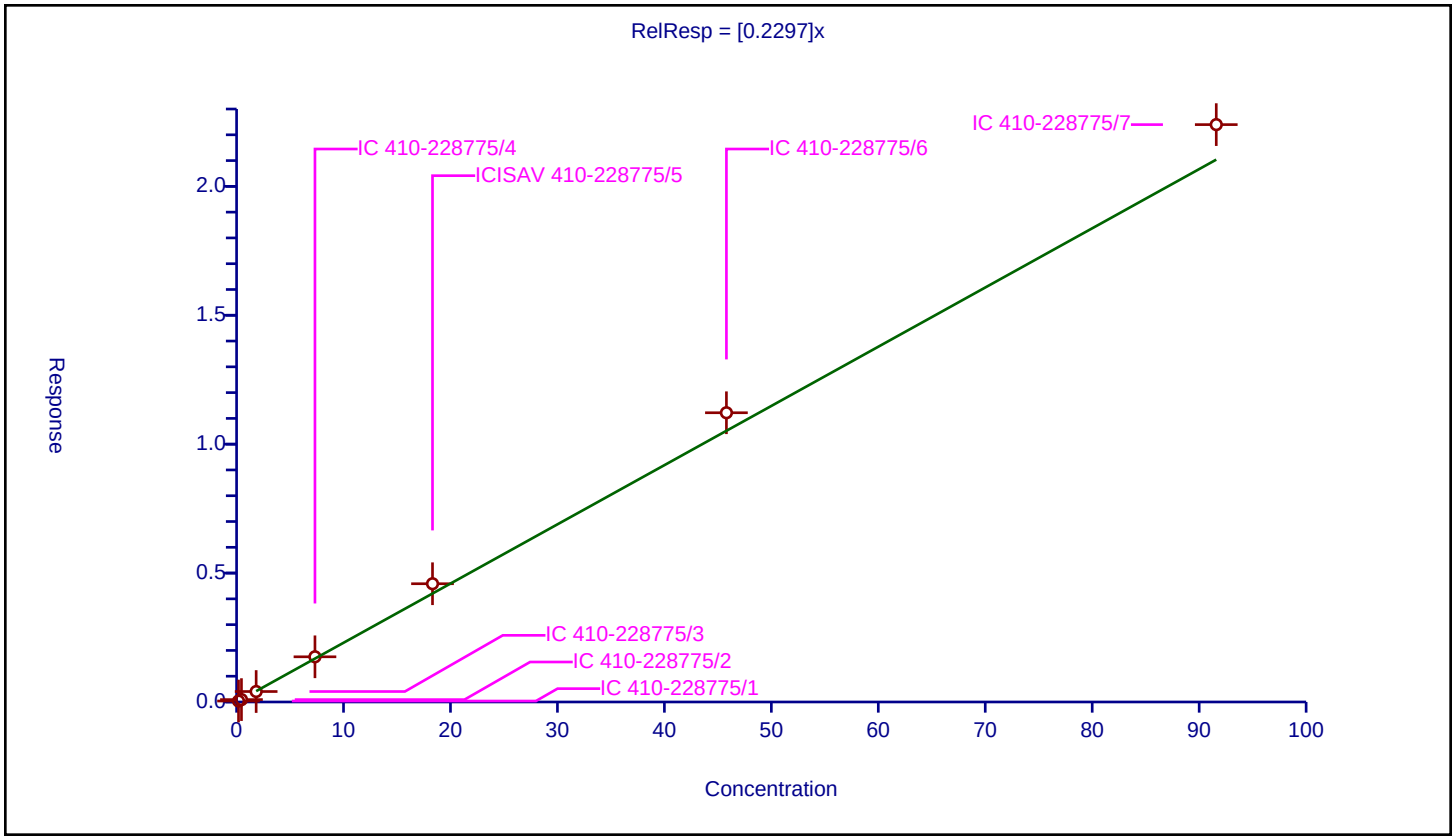
Curve Coefficients

Intercept:	0
Slope:	0.2297

Error Coefficients

Standard Error:	7220000
Relative Standard Error:	8.7
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1832	0.037464	10.0	8309826.0	0.204498	Y
2	IC 410-228775/2	0.458	0.092703	10.0	7872169.0	0.202407	Y
3	IC 410-228775/3	1.832	0.406342	10.0	6442139.0	0.221802	Y
4	IC 410-228775/4	7.328	1.752341	10.0	6202588.0	0.23913	Y
5	ICISAV 410-228775/5	18.32	4.586269	10.0	5696515.0	0.250342	Y
6	IC 410-228775/6	45.8	11.219009	10.0	7917637.0	0.244957	Y
7	IC 410-228775/7	91.6	22.39471	10.0	6707258.0	0.244484	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

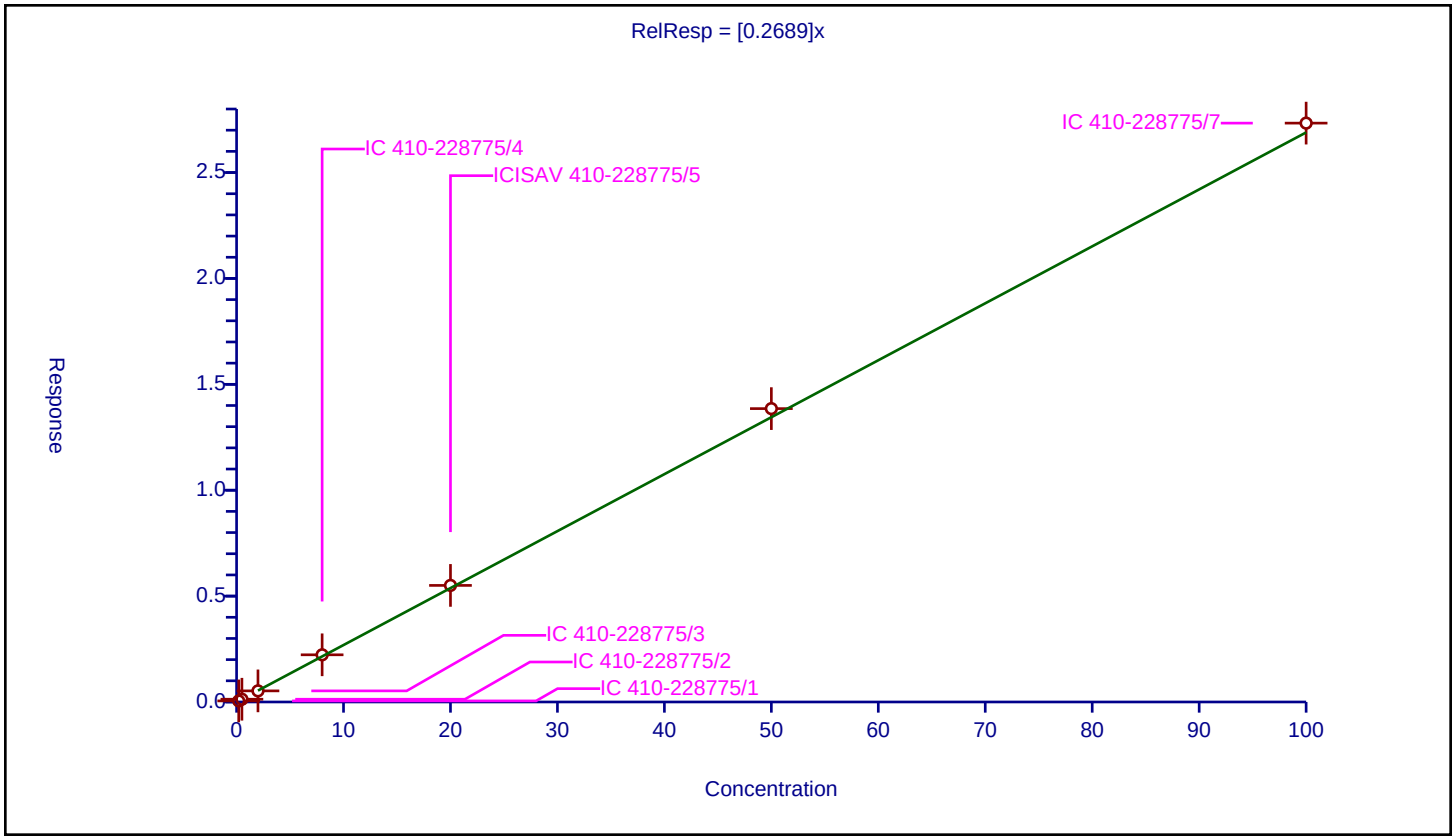
Curve Coefficients

Intercept:	0
Slope:	0.2689

Error Coefficients

Standard Error:	7340000
Relative Standard Error:	3.4
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.05122	9.3	6243052.0	0.256102	Y
2	IC 410-228775/2	0.5	0.129924	9.3	5624354.0	0.259848	Y
3	IC 410-228775/3	2.0	0.52496	9.3	4879064.0	0.26248	Y
4	IC 410-228775/4	8.0	2.228024	9.3	4772536.0	0.278503	Y
5	ICISAV 410-228775/5	20.0	5.50394	9.3	4529073.0	0.275197	Y
6	IC 410-228775/6	50.0	13.852874	9.3	6097979.0	0.277057	Y
7	IC 410-228775/7	100.0	27.333519	9.3	5188819.0	0.273335	Y



Calibration / PFECA F

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

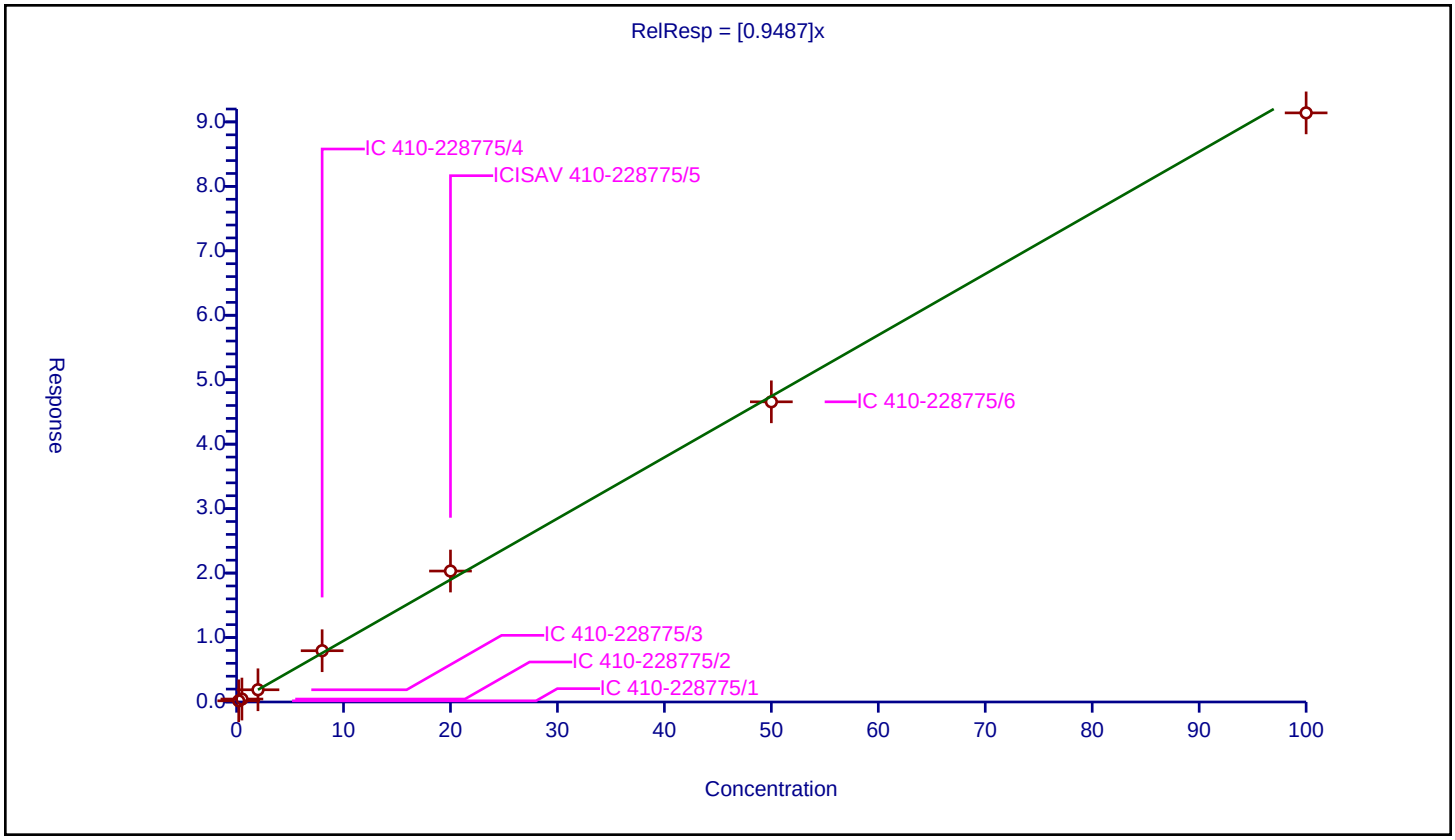
Curve Coefficients

Intercept:	0
Slope:	0.9487

Error Coefficients

Standard Error:	29700000
Relative Standard Error:	4.3
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.185086	10.0	8309826.0	0.925429	Y
2	IC 410-228775/2	0.5	0.45597	10.0	7872169.0	0.911939	Y
3	IC 410-228775/3	2.0	1.895782	10.0	6442139.0	0.947891	Y
4	IC 410-228775/4	8.0	7.955971	10.0	6202588.0	0.994496	Y
5	ICISAV 410-228775/5	20.0	20.314633	10.0	5696515.0	1.015732	Y
6	IC 410-228775/6	50.0	46.572527	10.0	7917637.0	0.931451	Y
7	IC 410-228775/7	100.0	91.399587	10.0	6707258.0	0.913996	Y



Calibration / PFO2HxA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

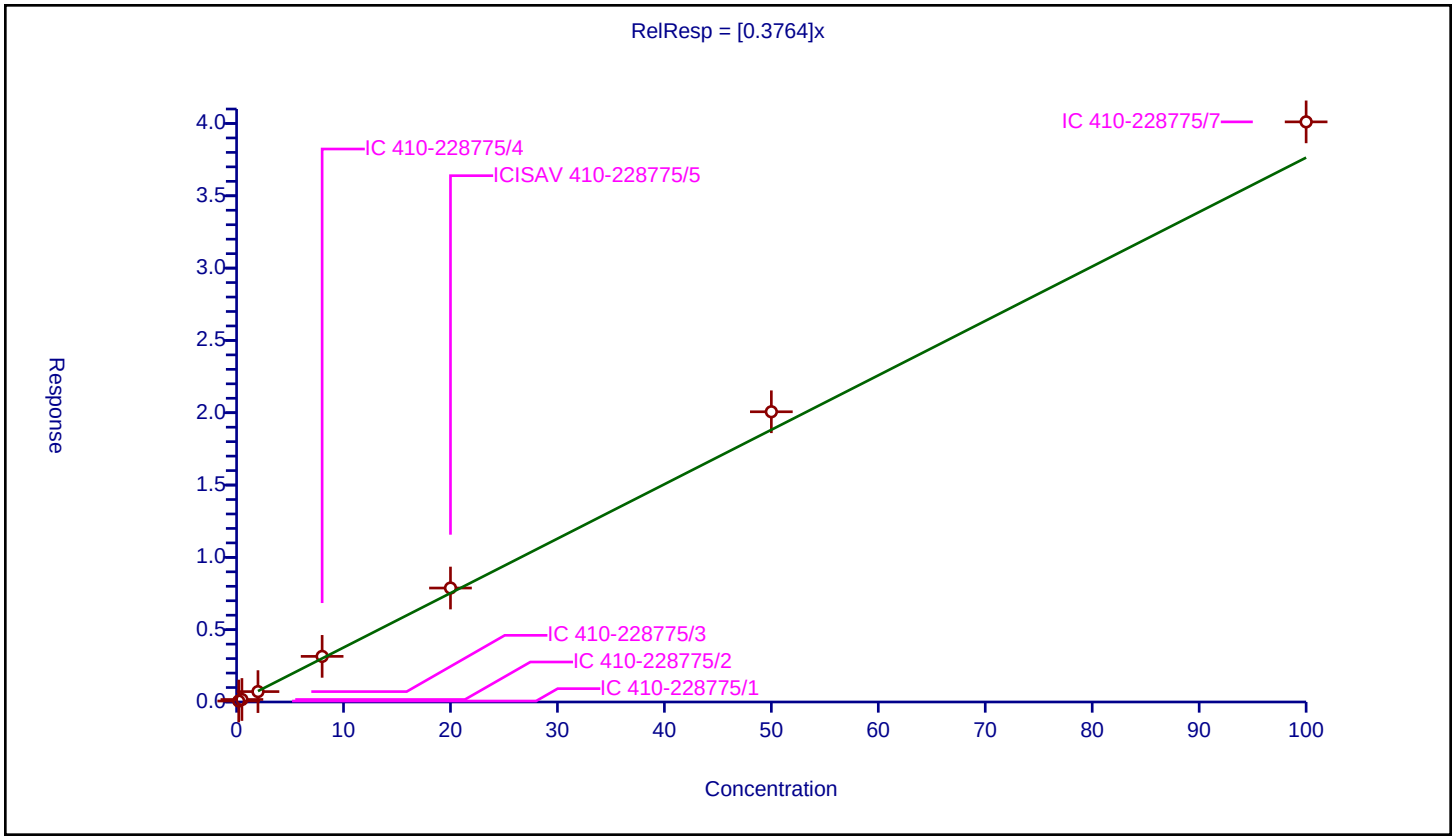
Curve Coefficients

Intercept:	0
Slope:	0.3764

Error Coefficients

Standard Error:	12900000
Relative Standard Error:	7.2
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.068095	10.0	8309826.0	0.340476	Y
2	IC 410-228775/2	0.5	0.17215	10.0	7872169.0	0.344299	Y
3	IC 410-228775/3	2.0	0.718994	10.0	6442139.0	0.359497	Y
4	IC 410-228775/4	8.0	3.153166	10.0	6202588.0	0.394146	Y
5	ICISAV 410-228775/5	20.0	7.880107	10.0	5696515.0	0.394005	Y
6	IC 410-228775/6	50.0	20.067553	10.0	7917637.0	0.401351	Y
7	IC 410-228775/7	100.0	40.111423	10.0	6707258.0	0.401114	Y



Calibration / 3:3 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

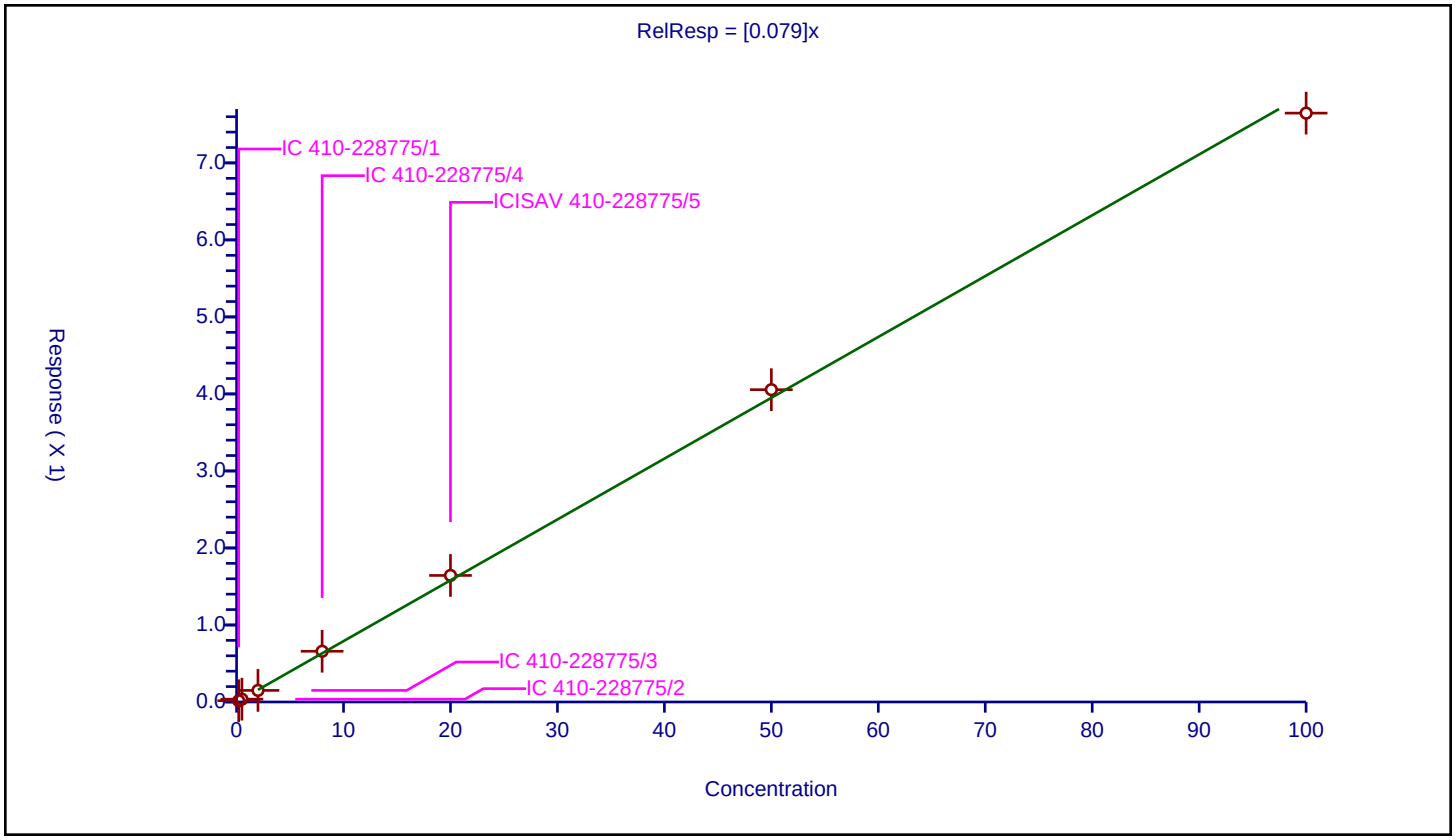
Curve Coefficients

Intercept:	0
Slope:	0.079

Error Coefficients

Standard Error:	2070000
Relative Standard Error:	5.1
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.016571	10.0	6483437.0	0.082857	Y
2	IC 410-228775/2	0.5	0.036452	10.0	6221927.0	0.072903	Y
3	IC 410-228775/3	2.0	0.150293	10.0	5293178.0	0.075147	Y
4	IC 410-228775/4	8.0	0.658836	10.0	5076758.0	0.082354	Y
5	ICISAV 410-228775/5	20.0	1.643406	10.0	4692219.0	0.08217	Y
6	IC 410-228775/6	50.0	4.055421	10.0	6323449.0	0.081108	Y
7	IC 410-228775/7	100.0	7.64666	10.0	5615966.0	0.076467	Y



Calibration / Perfluoropentanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

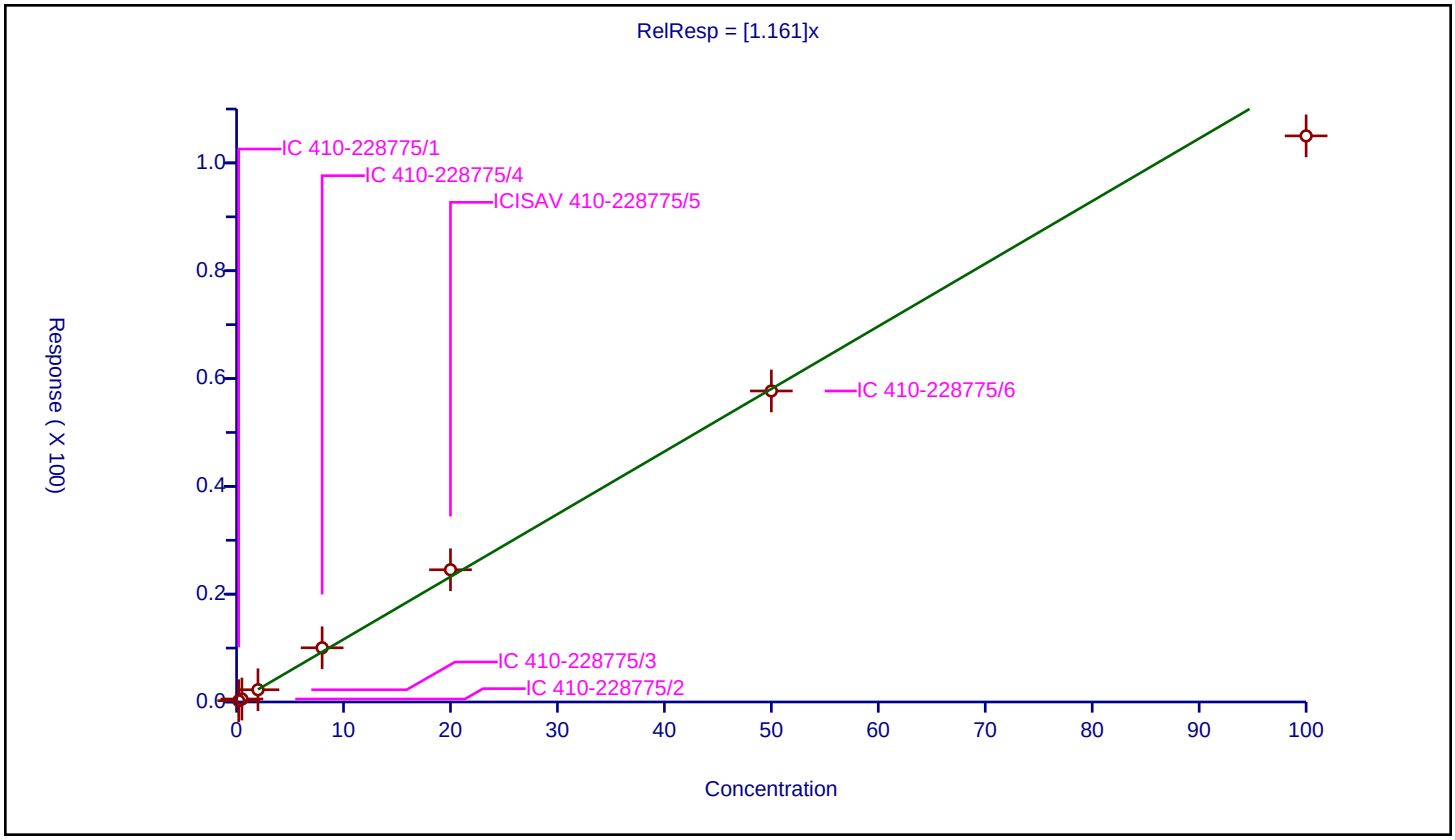
Curve Coefficients

Intercept:	0
Slope:	1.161

Error Coefficients

Standard Error:	28800000
Relative Standard Error:	6.2
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.240521	10.0	6483437.0	1.202603	Y
2	IC 410-228775/2	0.5	0.552228	10.0	6221927.0	1.104455	Y
3	IC 410-228775/3	2.0	2.27124	10.0	5293178.0	1.13562	Y
4	IC 410-228775/4	8.0	10.055175	10.0	5076758.0	1.256897	Y
5	ICISAV 410-228775/5	20.0	24.527549	10.0	4692219.0	1.226377	Y
6	IC 410-228775/6	50.0	57.699102	10.0	6323449.0	1.153982	Y
7	IC 410-228775/7	100.0	105.013061	10.0	5615966.0	1.050131	Y



Calibration / Perfluorobutanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

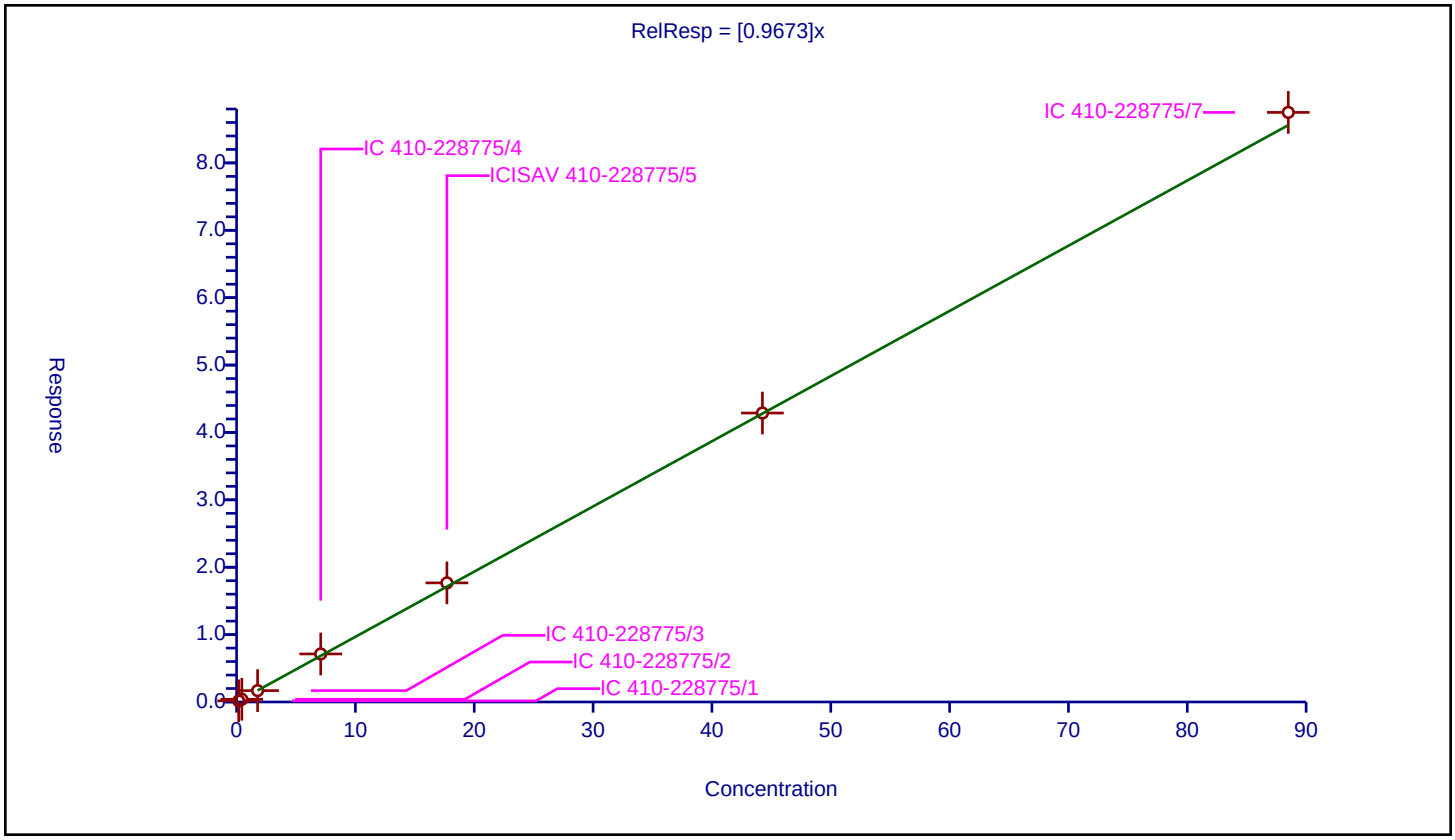
Curve Coefficients

Intercept:	0
Slope:	0.9673

Error Coefficients

Standard Error:	23300000
Relative Standard Error:	3.6
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.177	0.167469	9.3	6243052.0	0.94615	Y
2	IC 410-228775/2	0.4425	0.401886	9.3	5624354.0	0.908216	Y
3	IC 410-228775/3	1.77	1.687437	9.3	4879064.0	0.953354	Y
4	IC 410-228775/4	7.08	7.127934	9.3	4772536.0	1.00677	Y
5	ICISAV 410-228775/5	17.7	17.674896	9.3	4529073.0	0.998582	Y
6	IC 410-228775/6	44.25	42.88072	9.3	6097979.0	0.969056	Y
7	IC 410-228775/7	88.5	87.498902	9.3	5188819.0	0.988688	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

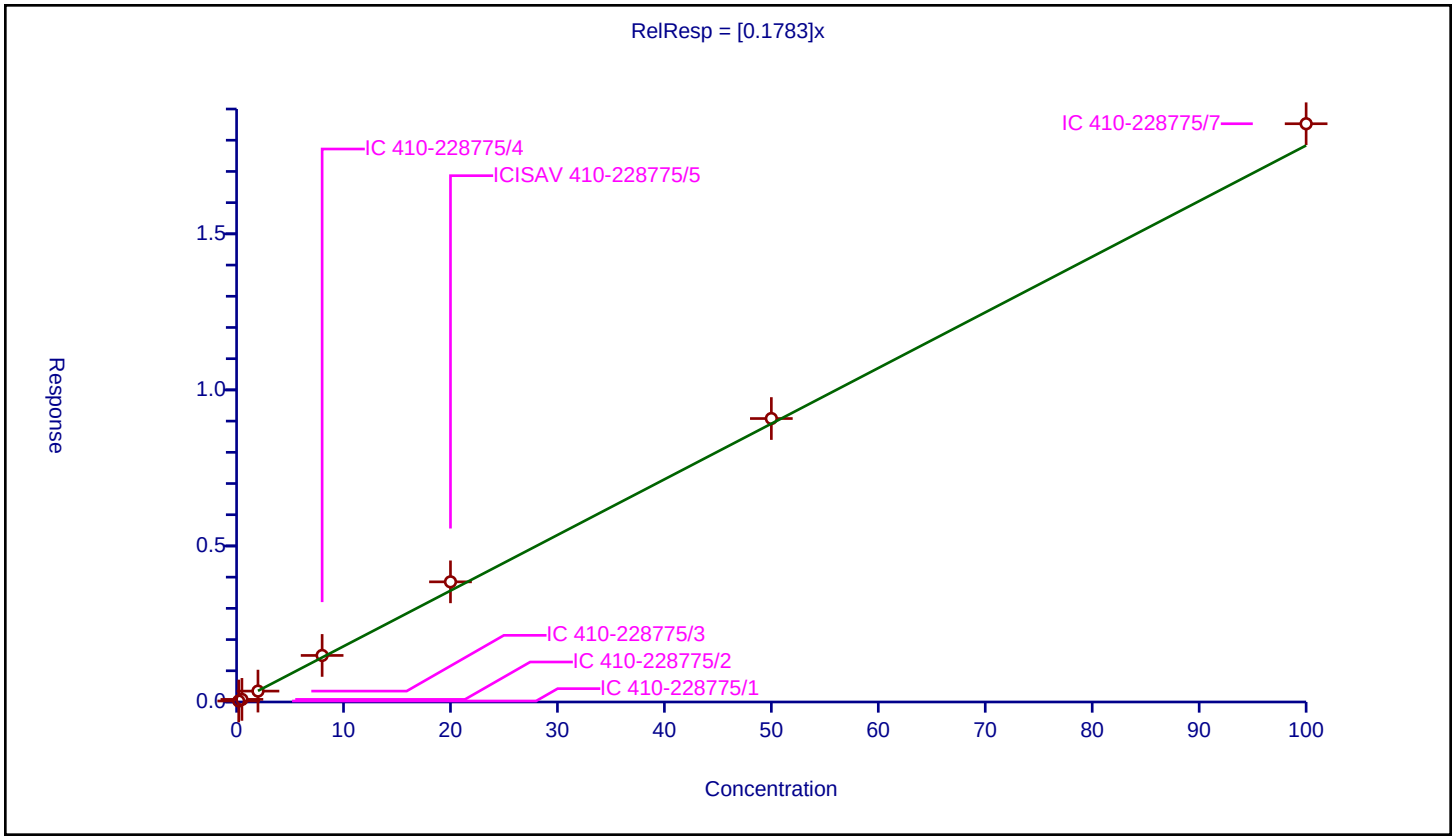
Curve Coefficients

Intercept:	0
Slope:	0.1783

Error Coefficients

Standard Error:	5940000
Relative Standard Error:	6.3
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.03243	10.0	8309826.0	0.162151	Y
2	IC 410-228775/2	0.5	0.082877	10.0	7872169.0	0.165754	Y
3	IC 410-228775/3	2.0	0.349176	10.0	6442139.0	0.174588	Y
4	IC 410-228775/4	8.0	1.491102	10.0	6202588.0	0.186388	Y
5	ICISAV 410-228775/5	20.0	3.849827	10.0	5696515.0	0.192491	Y
6	IC 410-228775/6	50.0	9.08251	10.0	7917637.0	0.18165	Y
7	IC 410-228775/7	100.0	18.528524	10.0	6707258.0	0.185285	Y



Calibration / PFECA A

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

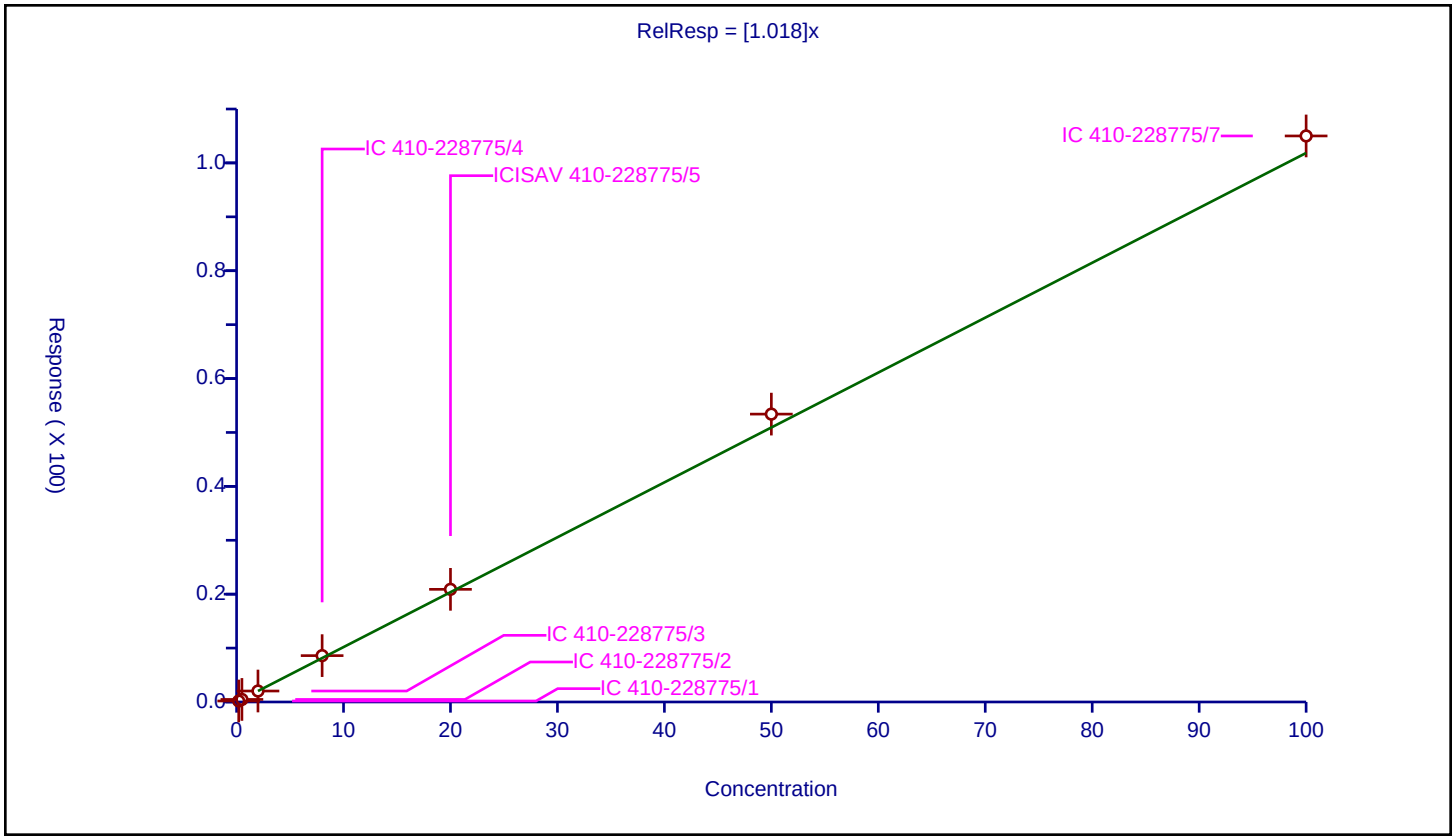
Curve Coefficients

Intercept:	0
Slope:	1.018

Error Coefficients

Standard Error:	28200000
Relative Standard Error:	5.8
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.185155	9.3	6243052.0	0.925777	Y
2	IC 410-228775/2	0.5	0.473587	9.3	5624354.0	0.947174	Y
3	IC 410-228775/3	2.0	2.035734	9.3	4879064.0	1.017867	Y
4	IC 410-228775/4	8.0	8.601316	9.3	4772536.0	1.075164	Y
5	ICISAV 410-228775/5	20.0	20.898962	9.3	4529073.0	1.044948	Y
6	IC 410-228775/6	50.0	53.40395	9.3	6097979.0	1.068079	Y
7	IC 410-228775/7	100.0	105.005129	9.3	5188819.0	1.050051	Y



Calibration / PES

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

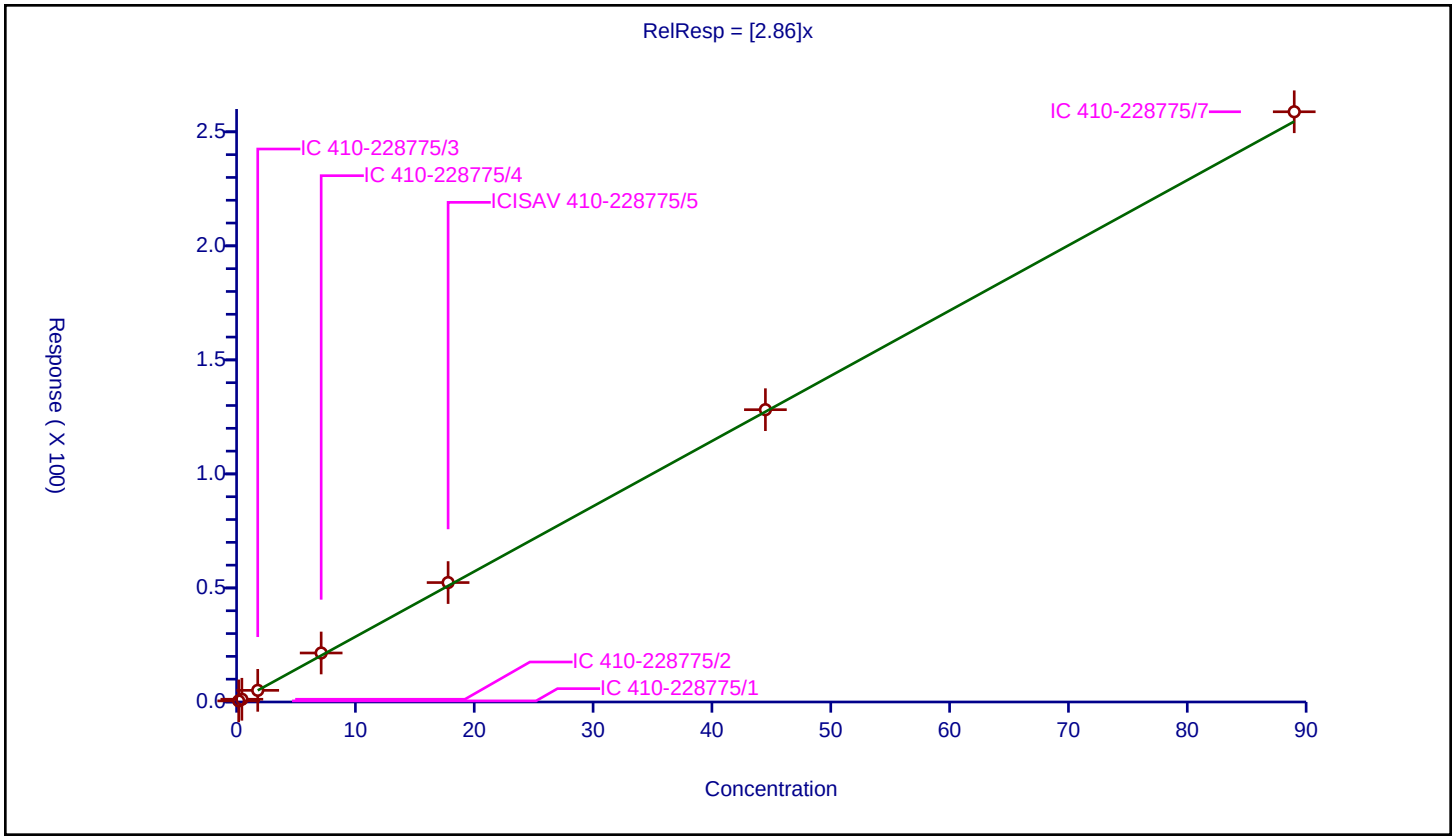
Curve Coefficients

Intercept:	0
Slope:	2.86

Error Coefficients

Standard Error:	69200000
Relative Standard Error:	4.1
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.178	0.484993	9.3	6243052.0	2.724681	Y
2	IC 410-228775/2	0.445	1.194413	9.3	5624354.0	2.684073	Y
3	IC 410-228775/3	1.78	5.099103	9.3	4879064.0	2.864664	Y
4	IC 410-228775/4	7.12	21.480051	9.3	4772536.0	3.016861	Y
5	ICISAV 410-228775/5	17.8	52.368787	9.3	4529073.0	2.942067	Y
6	IC 410-228775/6	44.5	128.168509	9.3	6097979.0	2.880191	Y
7	IC 410-228775/7	89.0	258.799989	9.3	5188819.0	2.907865	Y



Calibration / PFECA B

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

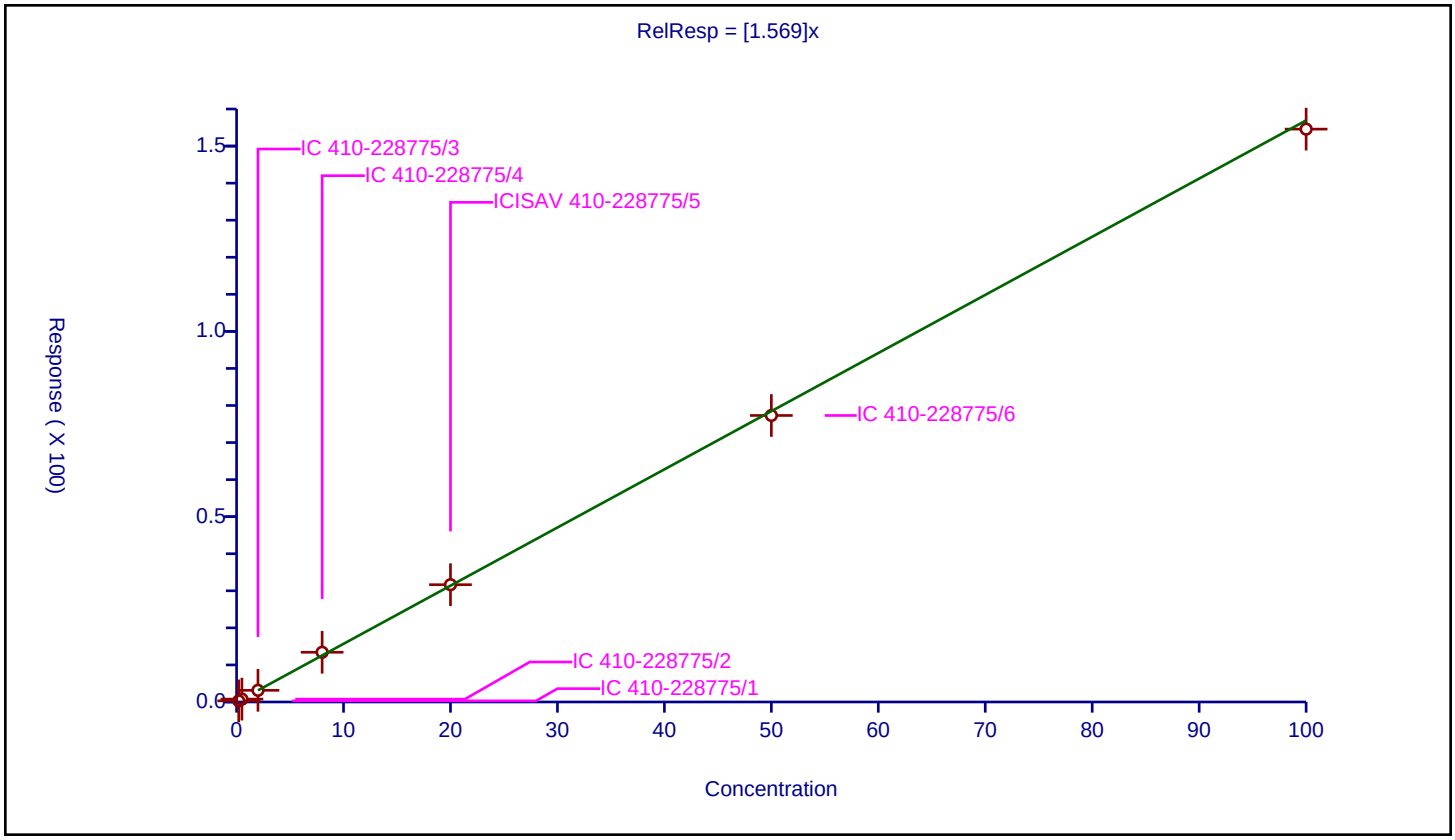
Curve Coefficients

Intercept:	0
Slope:	1.569

Error Coefficients

Standard Error:	41400000
Relative Standard Error:	3.3
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.303231	9.3	6243052.0	1.516157	Y
2	IC 410-228775/2	0.5	0.77082	9.3	5624354.0	1.541639	Y
3	IC 410-228775/3	2.0	3.15052	9.3	4879064.0	1.57526	Y
4	IC 410-228775/4	8.0	13.413615	9.3	4772536.0	1.676702	Y
5	ICISAV 410-228775/5	20.0	31.650394	9.3	4529073.0	1.58252	Y
6	IC 410-228775/6	50.0	77.313744	9.3	6097979.0	1.546275	Y
7	IC 410-228775/7	100.0	154.576946	9.3	5188819.0	1.545769	Y



Calibration / FBSA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

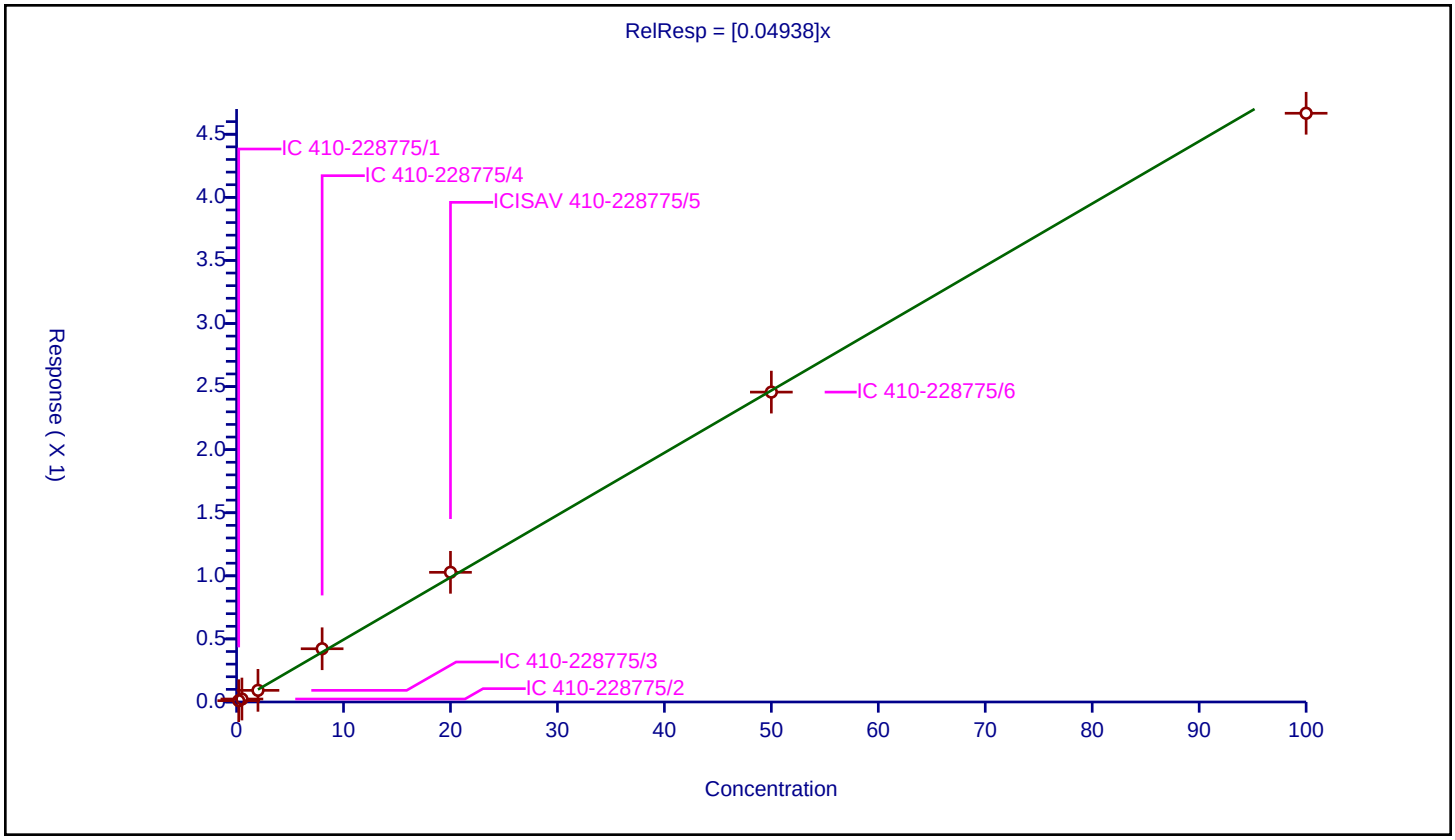
Curve Coefficients

Intercept:	0
Slope:	0.04938

Error Coefficients

Standard Error:	1270000
Relative Standard Error:	5.8
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.010504	9.3	6243052.0	0.052518	Y
2	IC 410-228775/2	0.5	0.023523	9.3	5624354.0	0.047046	Y
3	IC 410-228775/3	2.0	0.092301	9.3	4879064.0	0.046151	Y
4	IC 410-228775/4	8.0	0.422074	9.3	4772536.0	0.052759	Y
5	ICISAV 410-228775/5	20.0	1.02784	9.3	4529073.0	0.051392	Y
6	IC 410-228775/6	50.0	2.45618	9.3	6097979.0	0.049124	Y
7	IC 410-228775/7	100.0	4.666445	9.3	5188819.0	0.046664	Y



Calibration / 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

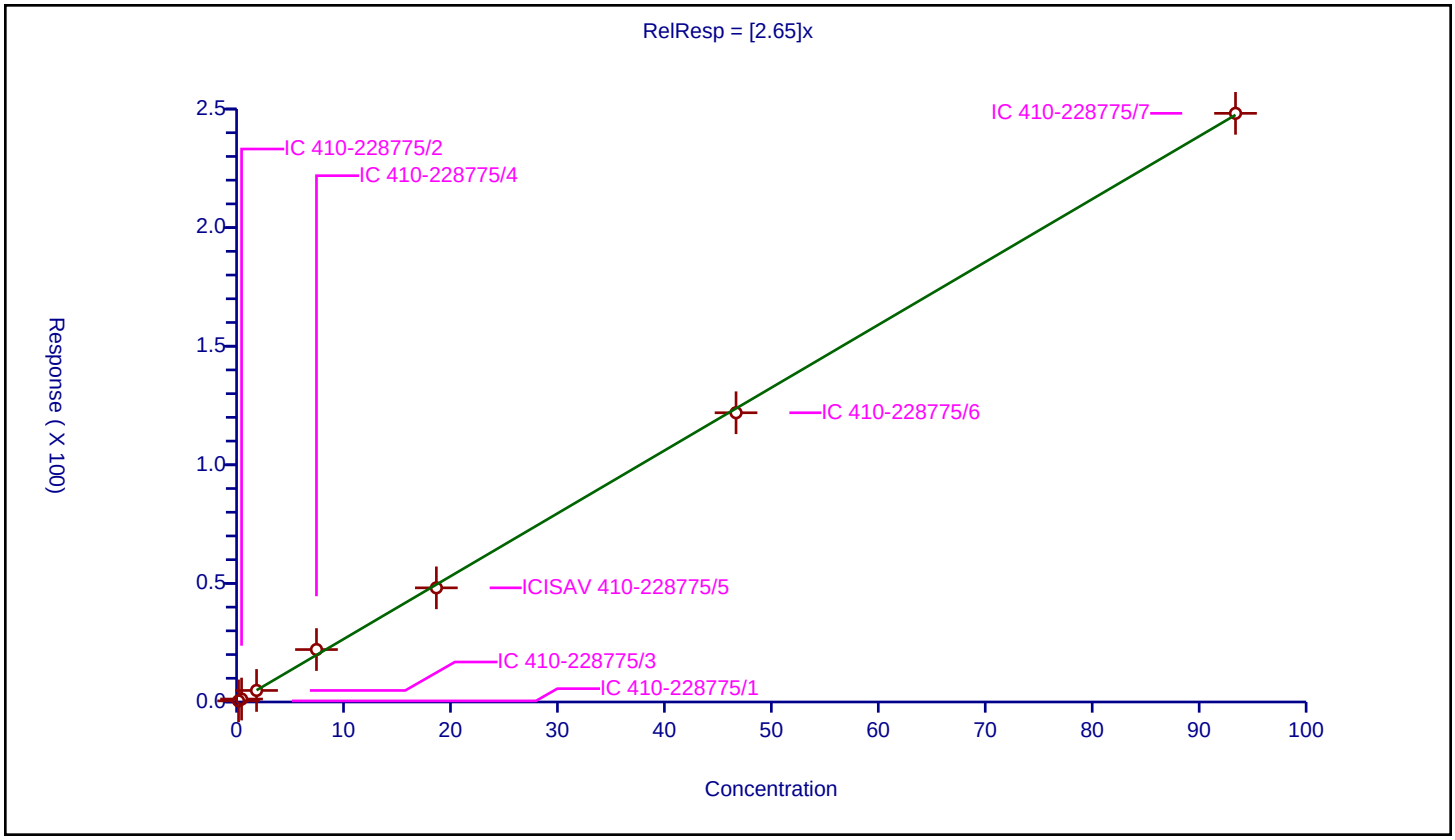
Curve Coefficients

Intercept:	0
Slope:	2.65

Error Coefficients

Standard Error:	8480000
Relative Standard Error:	5.6
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1868	0.464287	9.34	1068669.0	2.485475	Y
2	IC 410-228775/2	0.467	1.240159	9.34	935823.0	2.655588	Y
3	IC 410-228775/3	1.868	4.866653	9.34	852578.0	2.605275	Y
4	IC 410-228775/4	7.472	22.110321	9.34	771518.0	2.95909	Y
5	ICISAV 410-228775/5	18.68	48.124836	9.34	741786.0	2.576276	Y
6	IC 410-228775/6	46.7	121.946519	9.34	843106.0	2.611275	Y
7	IC 410-228775/7	93.4	248.183168	9.34	643328.0	2.657207	Y



Calibration / Perfluorohexanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

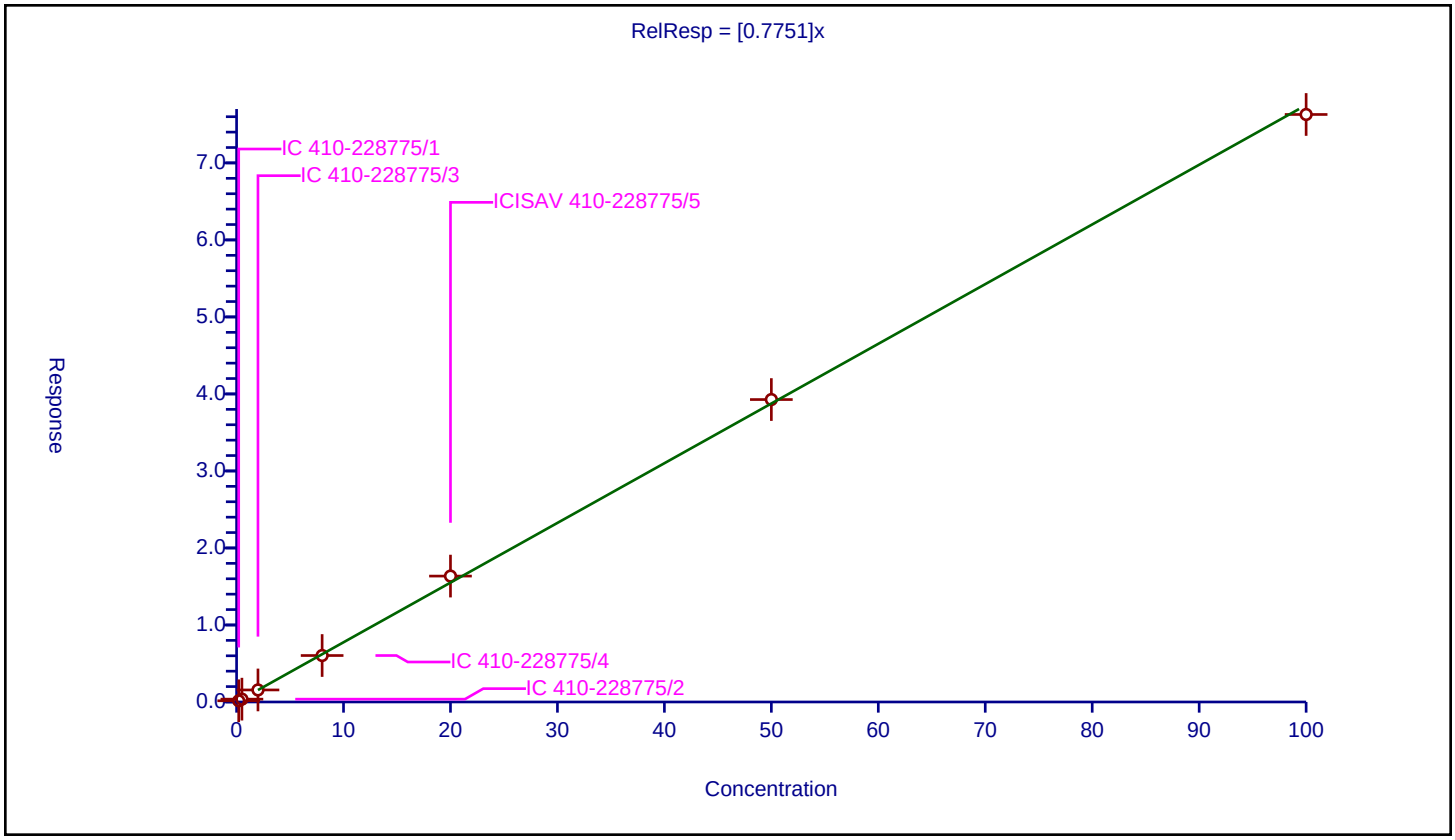
Curve Coefficients

Intercept:	0
Slope:	0.7751

Error Coefficients

Standard Error:	25100000
Relative Standard Error:	3.3
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.157182	10.0	8937035.0	0.785909	Y
2	IC 410-228775/2	0.5	0.368945	10.0	8264970.0	0.73789	Y
3	IC 410-228775/3	2.0	1.564047	10.0	6823881.0	0.782023	Y
4	IC 410-228775/4	8.0	6.033242	10.0	6763778.0	0.754155	Y
5	ICISAV 410-228775/5	20.0	16.348273	10.0	6032143.0	0.817414	Y
6	IC 410-228775/6	50.0	39.273612	10.0	8043208.0	0.785472	Y
7	IC 410-228775/7	100.0	76.289921	10.0	6782298.0	0.762899	Y



Calibration / Perfluoropentanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

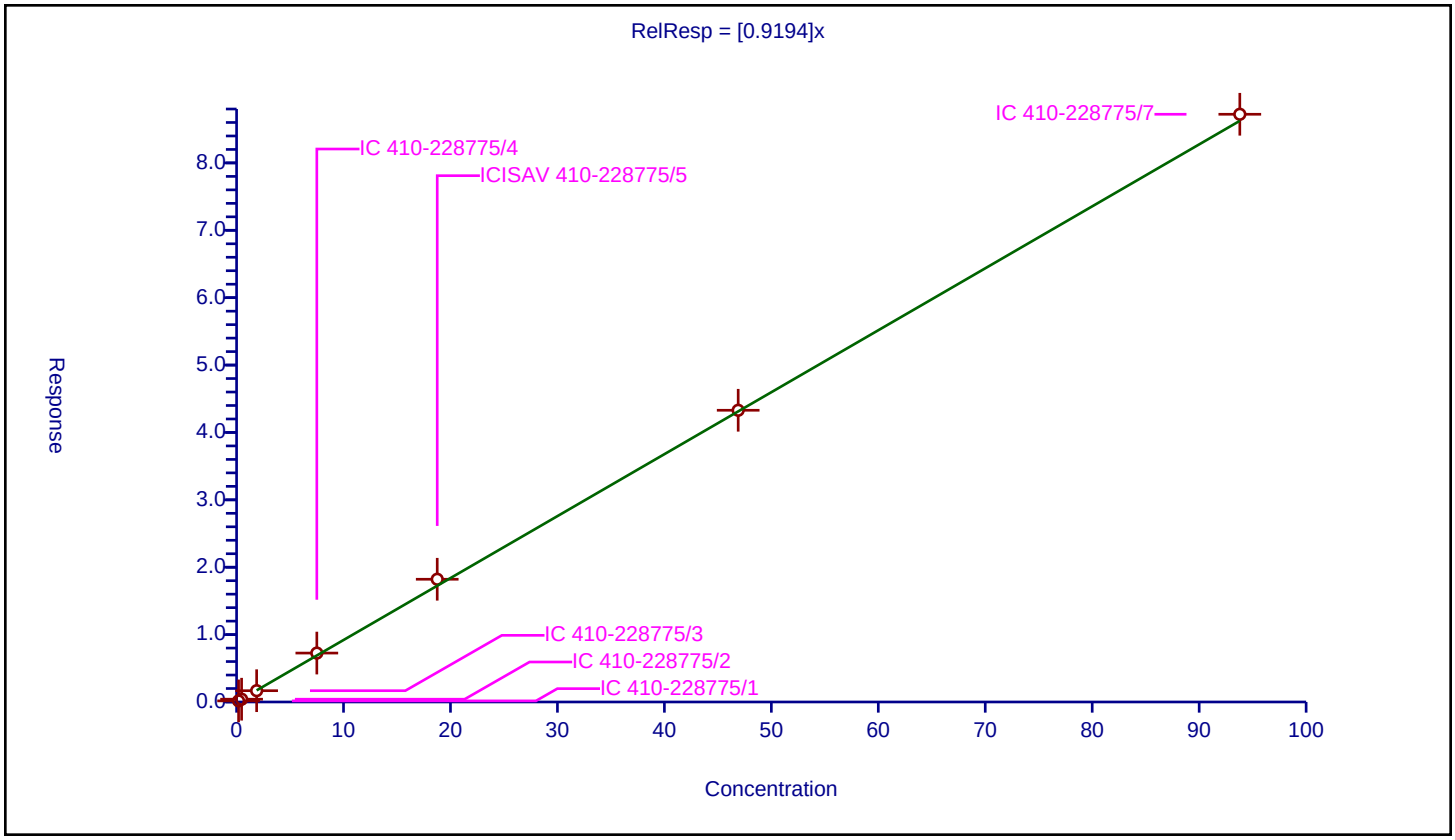
Curve Coefficients

Intercept:	0
Slope:	0.9194

Error Coefficients

Standard Error:	23300000
Relative Standard Error:	4.4
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1876	0.162816	9.3	6243052.0	0.867891	Y
2	IC 410-228775/2	0.469	0.413973	9.3	5624354.0	0.882671	Y
3	IC 410-228775/3	1.876	1.677735	9.3	4879064.0	0.894315	Y
4	IC 410-228775/4	7.504	7.258768	9.3	4772536.0	0.96732	Y
5	ICISAV 410-228775/5	18.76	18.214573	9.3	4529073.0	0.970926	Y
6	IC 410-228775/6	46.9	43.292044	9.3	6097979.0	0.923071	Y
7	IC 410-228775/7	93.8	87.219156	9.3	5188819.0	0.929842	Y



Calibration / PFO3OA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

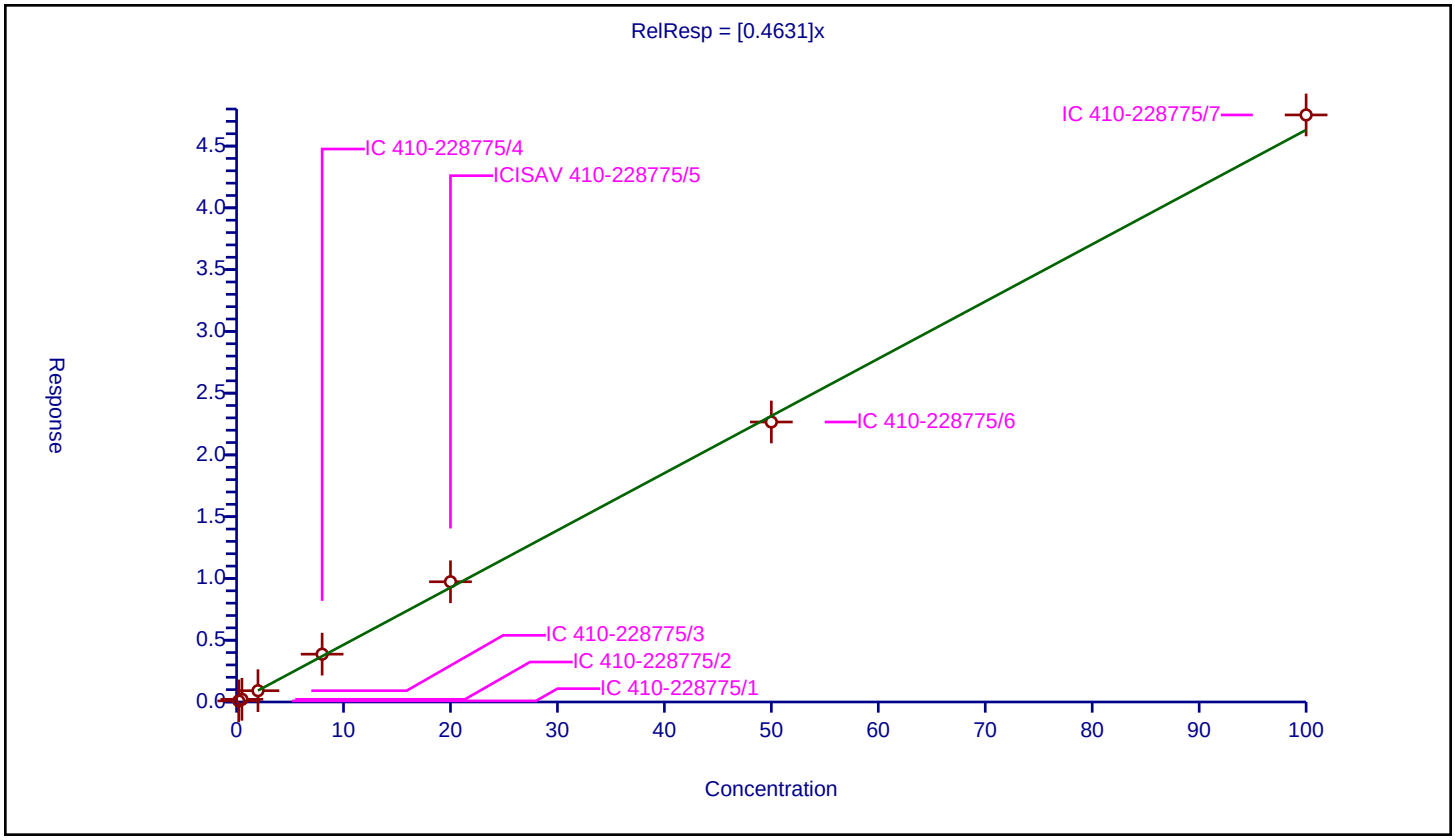
Curve Coefficients

Intercept:	0
Slope:	0.4631

Error Coefficients

Standard Error:	15100000
Relative Standard Error:	4.2
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.090351	10.0	8309826.0	0.451754	Y
2	IC 410-228775/2	0.5	0.216659	10.0	7872169.0	0.433319	Y
3	IC 410-228775/3	2.0	0.915047	10.0	6442139.0	0.457524	Y
4	IC 410-228775/4	8.0	3.872463	10.0	6202588.0	0.484058	Y
5	ICISAV 410-228775/5	20.0	9.731885	10.0	5696515.0	0.486594	Y
6	IC 410-228775/6	50.0	22.664161	10.0	7917637.0	0.453283	Y
7	IC 410-228775/7	100.0	47.521009	10.0	6707258.0	0.47521	Y



Calibration / Perfluoro(2-propoxypropanoic) acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

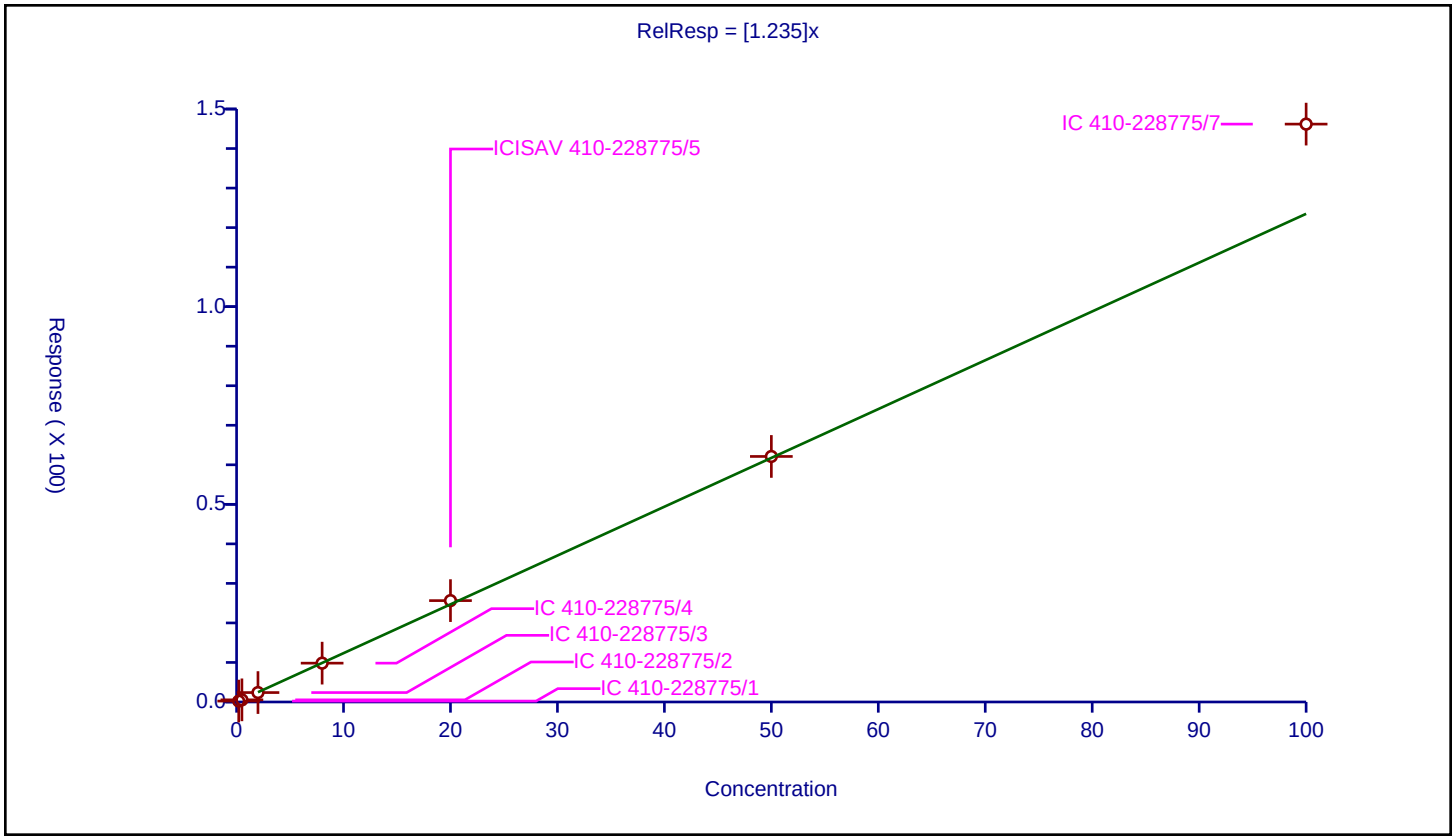
Curve Coefficients

Intercept:	0
Slope:	1.235

Error Coefficients

Standard Error:	11100000
Relative Standard Error:	9.7
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.231545	10.0	2025738.0	1.157726	Y
2	IC 410-228775/2	0.5	0.540264	10.0	1924782.0	1.080528	Y
3	IC 410-228775/3	2.0	2.383633	10.0	1549660.0	1.191816	Y
4	IC 410-228775/4	8.0	9.824666	10.0	1512143.0	1.228083	Y
5	ICISAV 410-228775/5	20.0	25.642029	10.0	1441967.0	1.282101	Y
6	IC 410-228775/6	50.0	62.111154	10.0	2054848.0	1.242223	Y
7	IC 410-228775/7	100.0	146.185042	10.0	1627989.0	1.46185	Y



Calibration / Hydro-EVE Acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

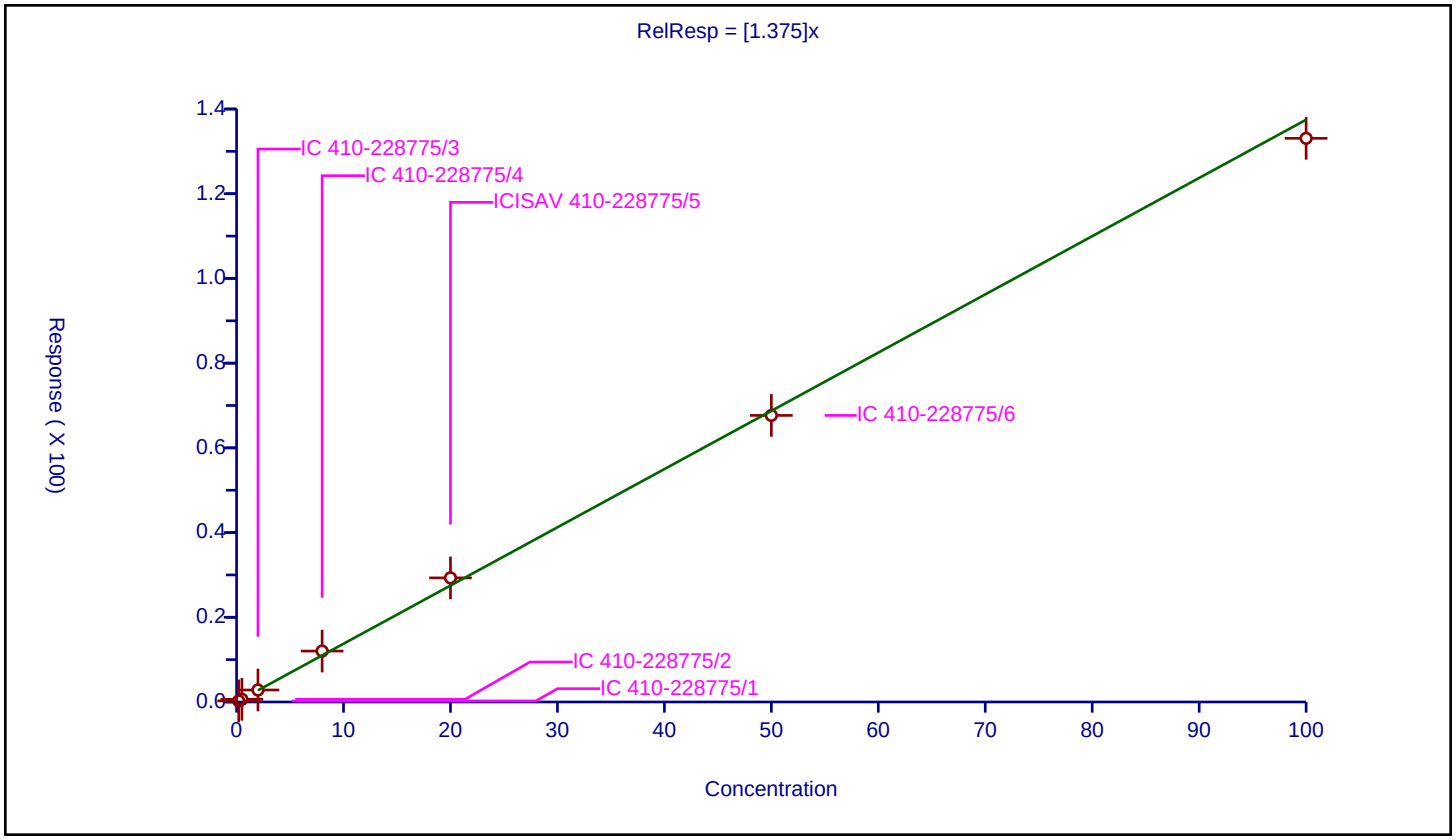
Curve Coefficients

Intercept:	0
Slope:	1.375

Error Coefficients

Standard Error:	43200000
Relative Standard Error:	6.4
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.256233	10.0	8309826.0	1.281164	Y
2	IC 410-228775/2	0.5	0.637627	10.0	7872169.0	1.275255	Y
3	IC 410-228775/3	2.0	2.830394	10.0	6442139.0	1.415197	Y
4	IC 410-228775/4	8.0	12.019173	10.0	6202588.0	1.502397	Y
5	ICISAV 410-228775/5	20.0	29.296817	10.0	5696515.0	1.464841	Y
6	IC 410-228775/6	50.0	67.658152	10.0	7917637.0	1.353163	Y
7	IC 410-228775/7	100.0	133.082435	10.0	6707258.0	1.330824	Y



Calibration / Hydro-PS Acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

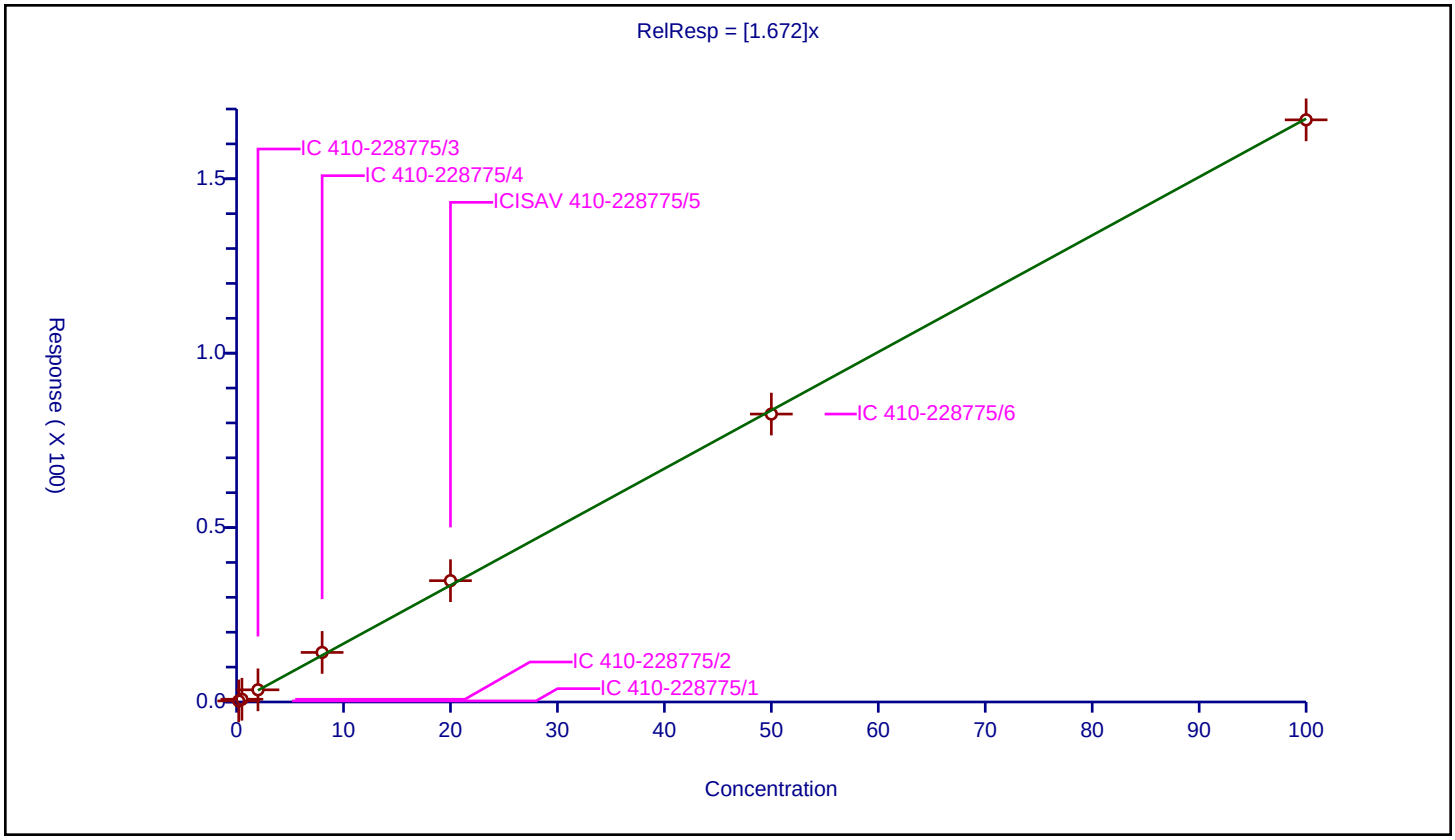
Curve Coefficients

Intercept:	0
Slope:	1.672

Error Coefficients

Standard Error:	44600000
Relative Standard Error:	5.2
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.311584	9.3	6243052.0	1.55792	Y
2	IC 410-228775/2	0.5	0.784605	9.3	5624354.0	1.56921	Y
3	IC 410-228775/3	2.0	3.48811	9.3	4879064.0	1.744055	Y
4	IC 410-228775/4	8.0	14.212113	9.3	4772536.0	1.776514	Y
5	ICISAV 410-228775/5	20.0	34.781606	9.3	4529073.0	1.73908	Y
6	IC 410-228775/6	50.0	82.545916	9.3	6097979.0	1.650918	Y
7	IC 410-228775/7	100.0	166.893492	9.3	5188819.0	1.668935	Y



Calibration / R-PSDCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

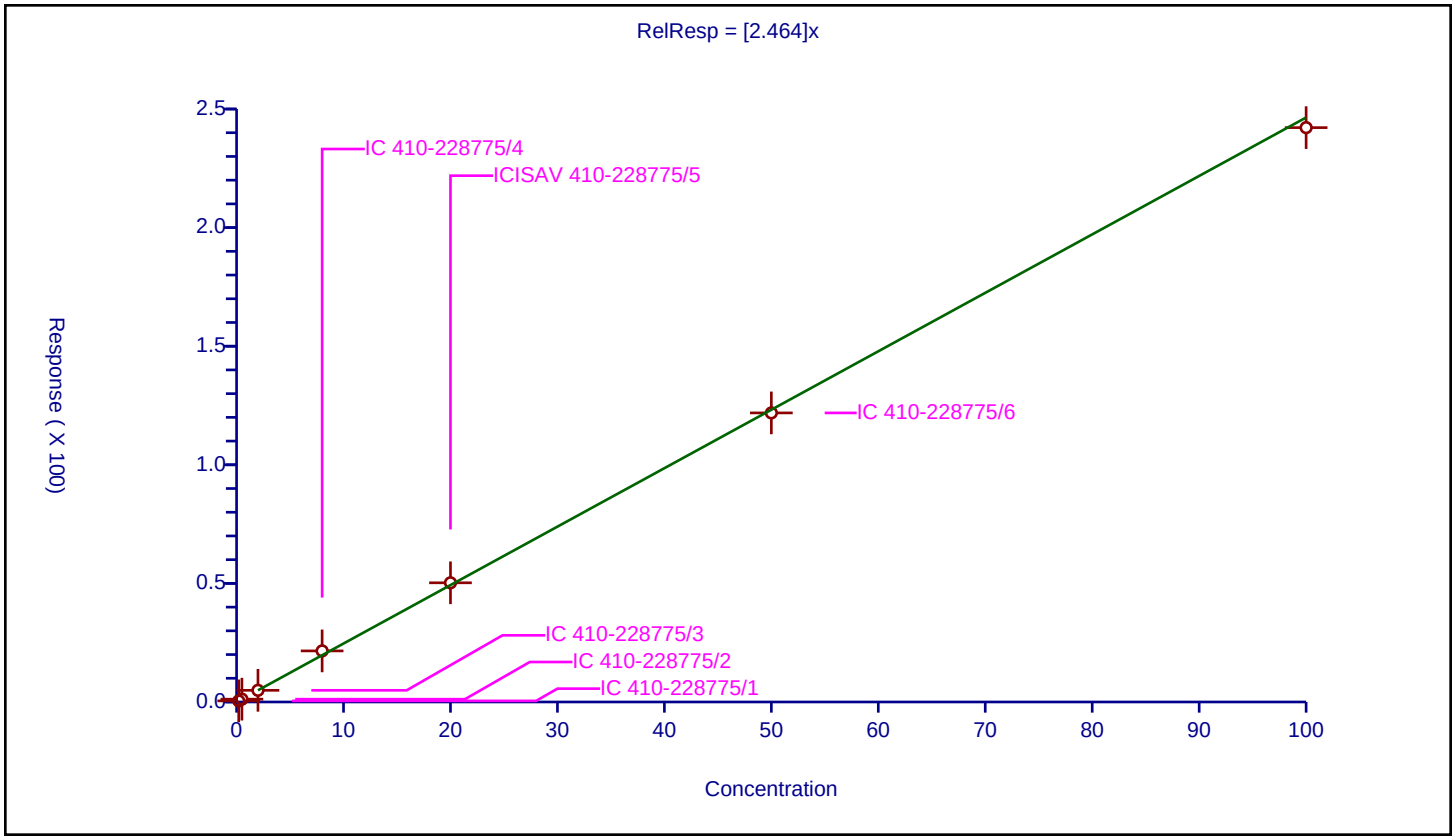
Curve Coefficients

Intercept:	0
Slope:	2.464

Error Coefficients

Standard Error:	65000000
Relative Standard Error:	4.6
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.47027	9.3	6243052.0	2.351348	Y
2	IC 410-228775/2	0.5	1.18806	9.3	5624354.0	2.376119	Y
3	IC 410-228775/3	2.0	4.915852	9.3	4879064.0	2.457926	Y
4	IC 410-228775/4	8.0	21.536486	9.3	4772536.0	2.692061	Y
5	ICISAV 410-228775/5	20.0	50.253979	9.3	4529073.0	2.512699	Y
6	IC 410-228775/6	50.0	121.877353	9.3	6097979.0	2.437547	Y
7	IC 410-228775/7	100.0	242.149484	9.3	5188819.0	2.421495	Y



Calibration / N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

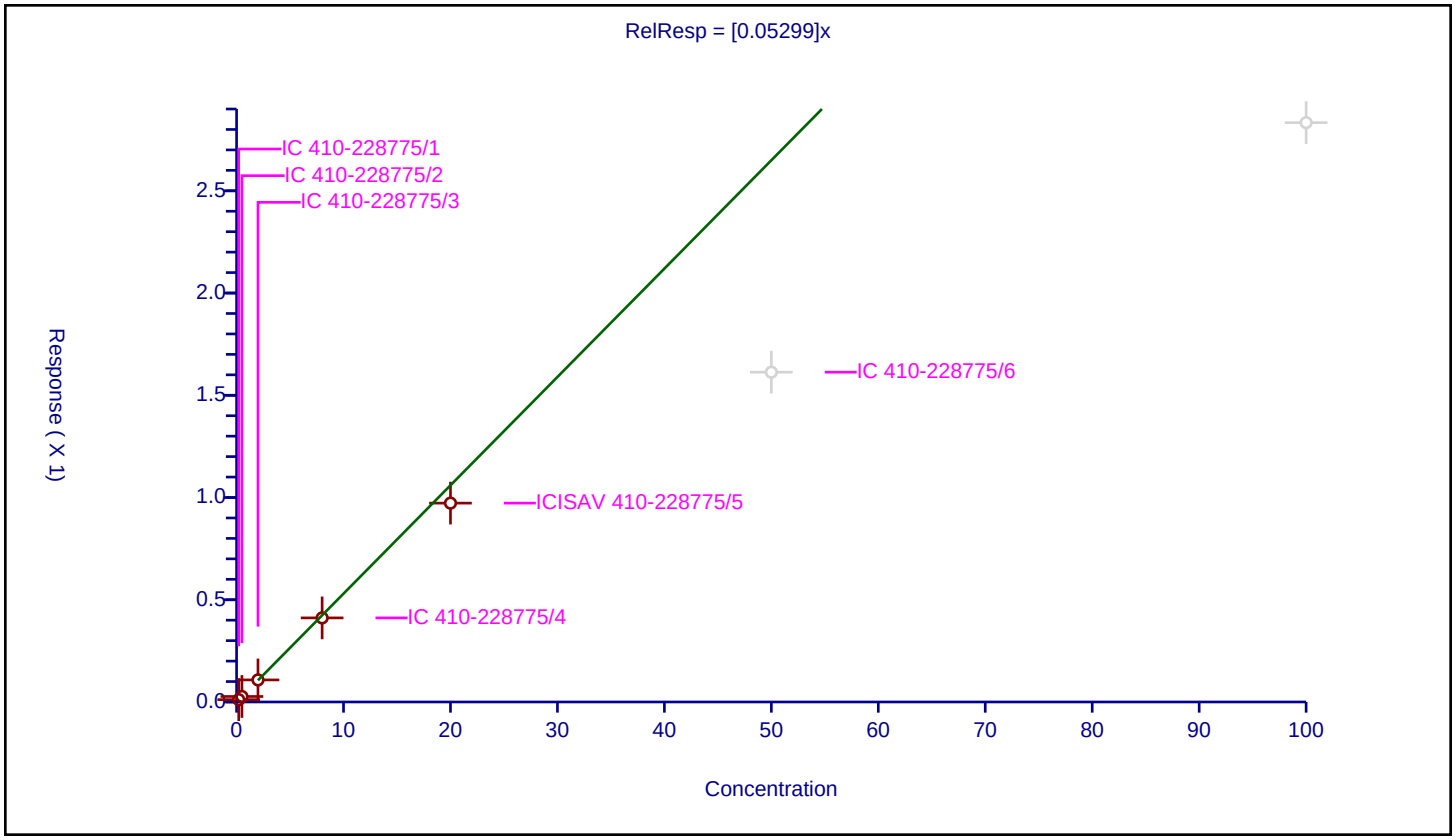
Curve Coefficients

Intercept:	0
Slope:	0.05299

Error Coefficients

Standard Error:	261000
Relative Standard Error:	6.0
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.011415	9.3	6243052.0	0.057076	Y
2	IC 410-228775/2	0.5	0.026933	9.3	5624354.0	0.053865	Y
3	IC 410-228775/3	2.0	0.107914	9.3	4879064.0	0.053957	Y
4	IC 410-228775/4	8.0	0.411224	9.3	4772536.0	0.051403	Y
5	ICISAV 410-228775/5	20.0	0.972562	9.3	4529073.0	0.048628	Y
6	IC 410-228775/6	50.0	1.612968	9.3	6097979.0	0.032259	N
7	IC 410-228775/7	100.0	2.833315	9.3	5188819.0	0.028333	N



Calibration / Perfluoroheptanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

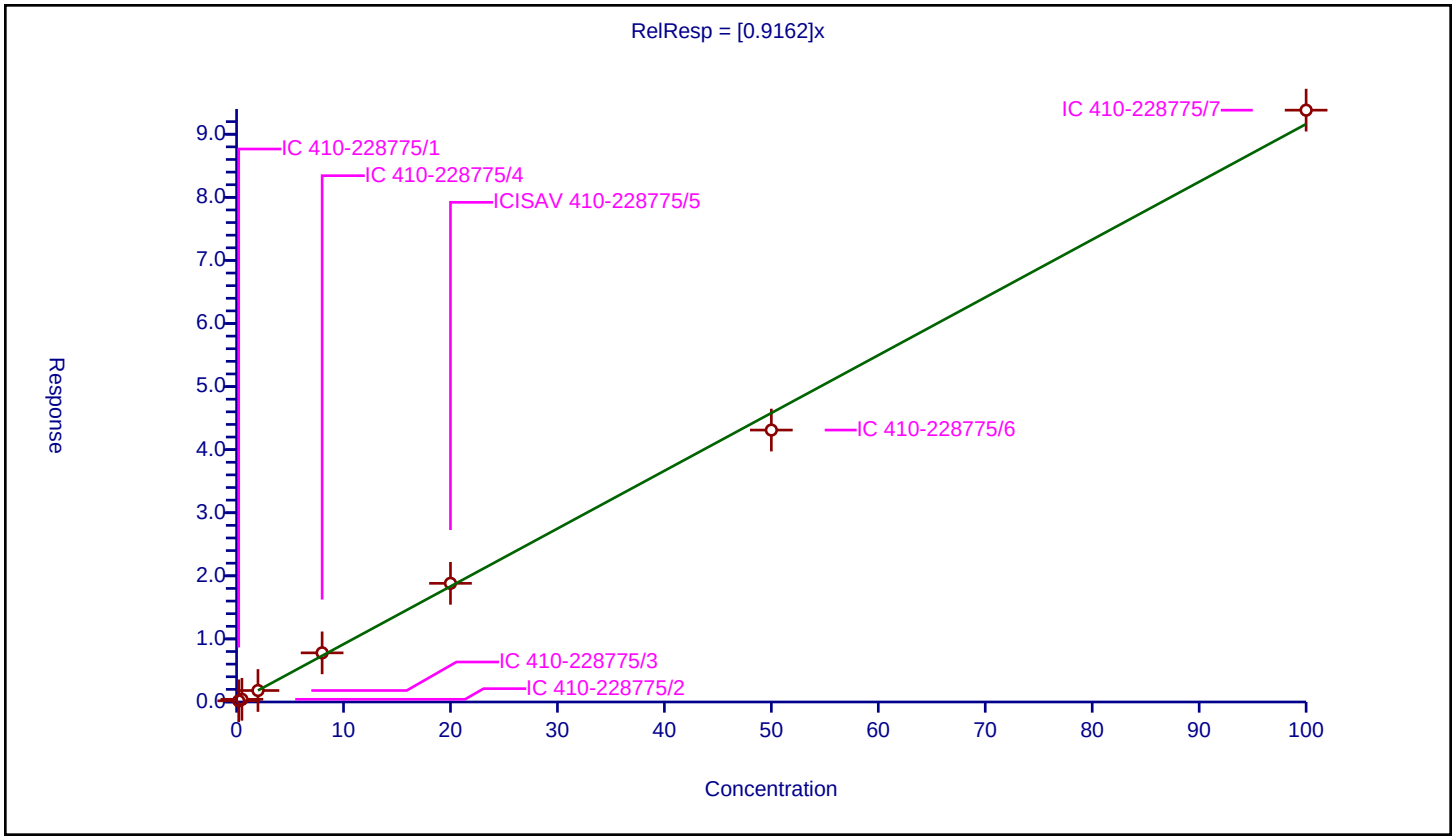
Curve Coefficients

Intercept:	0
Slope:	0.9162

Error Coefficients

Standard Error:	28400000
Relative Standard Error:	5.0
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.188408	10.0	9727517.0	0.942039	Y
2	IC 410-228775/2	0.5	0.423854	10.0	9659262.0	0.847709	Y
3	IC 410-228775/3	2.0	1.818041	10.0	7920631.0	0.90902	Y
4	IC 410-228775/4	8.0	7.790155	10.0	7298974.0	0.973769	Y
5	ICISAV 410-228775/5	20.0	18.80919	10.0	6615575.0	0.94046	Y
6	IC 410-228775/6	50.0	43.10587	10.0	8318053.0	0.862117	Y
7	IC 410-228775/7	100.0	93.819027	10.0	6170933.0	0.93819	Y



Calibration / Perfluorohexanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

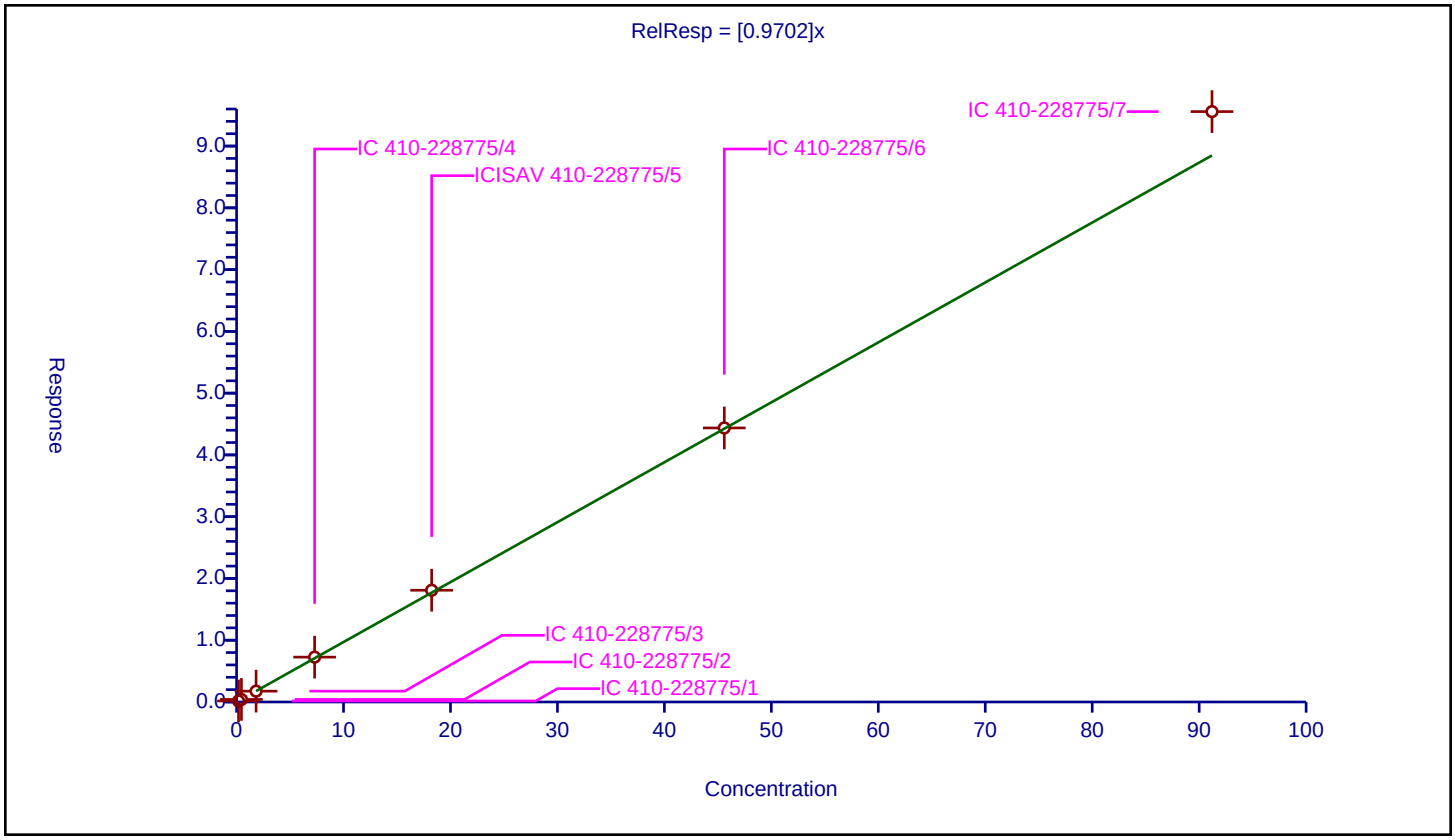
Curve Coefficients

Intercept:	0
Slope:	0.9702

Error Coefficients

Standard Error:	20500000
Relative Standard Error:	5.1
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1824	0.166607	9.46	6097309.0	0.913414	Y
2	IC 410-228775/2	0.456	0.413876	9.46	5508806.0	0.907623	Y
3	IC 410-228775/3	1.824	1.754098	9.46	4763394.0	0.961677	Y
4	IC 410-228775/4	7.296	7.265755	9.46	4520164.0	0.995855	Y
5	ICISAV 410-228775/5	18.24	18.090802	9.46	4211545.0	0.99182	Y
6	IC 410-228775/6	45.6	44.367338	9.46	5440959.0	0.972968	Y
7	IC 410-228775/7	91.2	95.582785	9.46	4182178.0	1.048057	Y



Calibration / DONA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

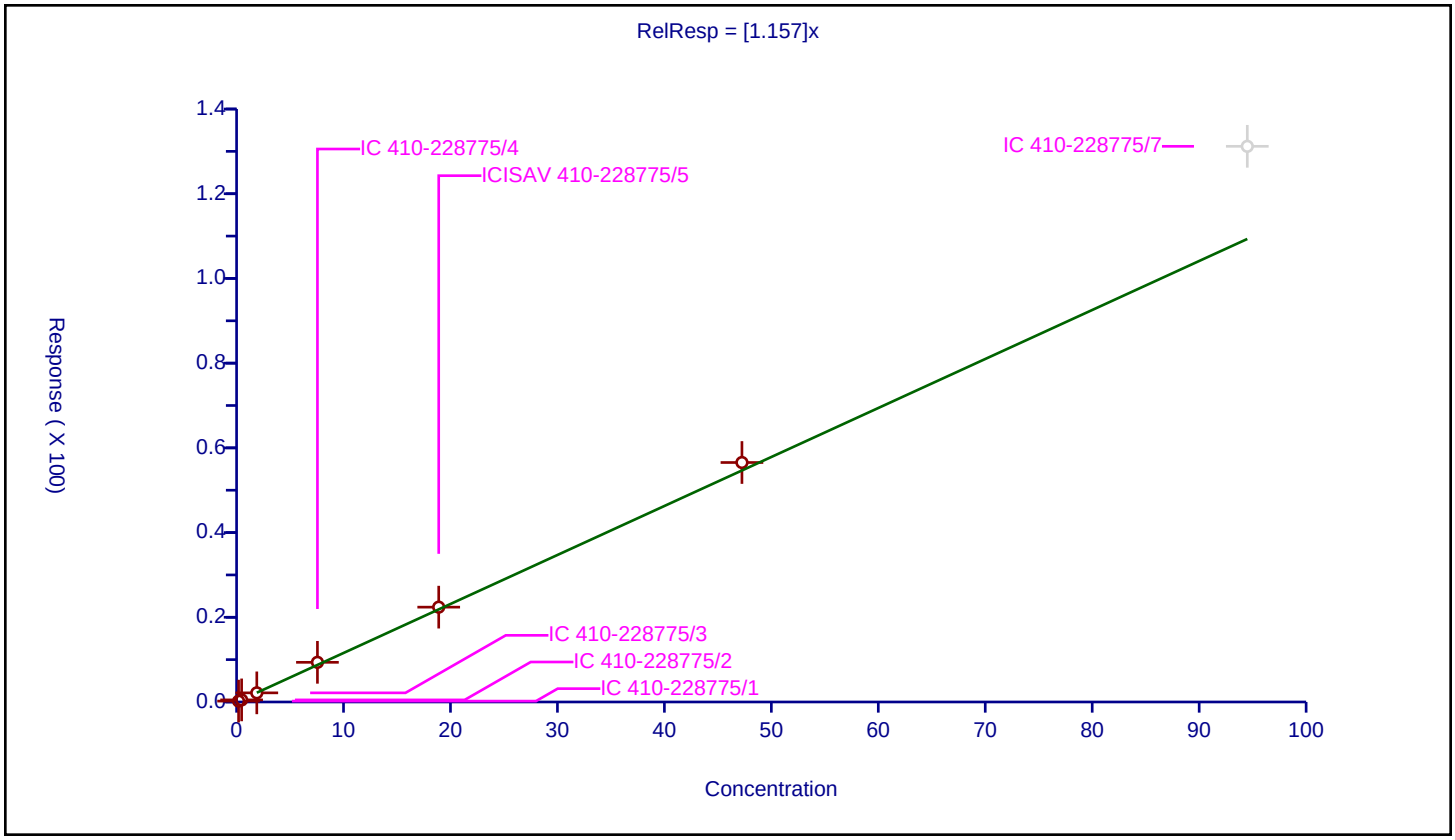
Curve Coefficients

Intercept:	0
Slope:	1.157

Error Coefficients

Standard Error:	22300000
Relative Standard Error:	5.7
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.189	0.213347	10.0	9727517.0	1.128822	Y
2	IC 410-228775/2	0.4725	0.496061	10.0	9659262.0	1.049864	Y
3	IC 410-228775/3	1.89	2.159368	10.0	7920631.0	1.142523	Y
4	IC 410-228775/4	7.56	9.362916	10.0	7298974.0	1.238481	Y
5	ICISAV 410-228775/5	18.9	22.391753	10.0	6615575.0	1.184749	Y
6	IC 410-228775/6	47.25	56.539082	10.0	8318053.0	1.196594	Y
7	IC 410-228775/7	94.5	131.189368	10.0	6170933.0	1.388247	N



Calibration / PFECA G

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

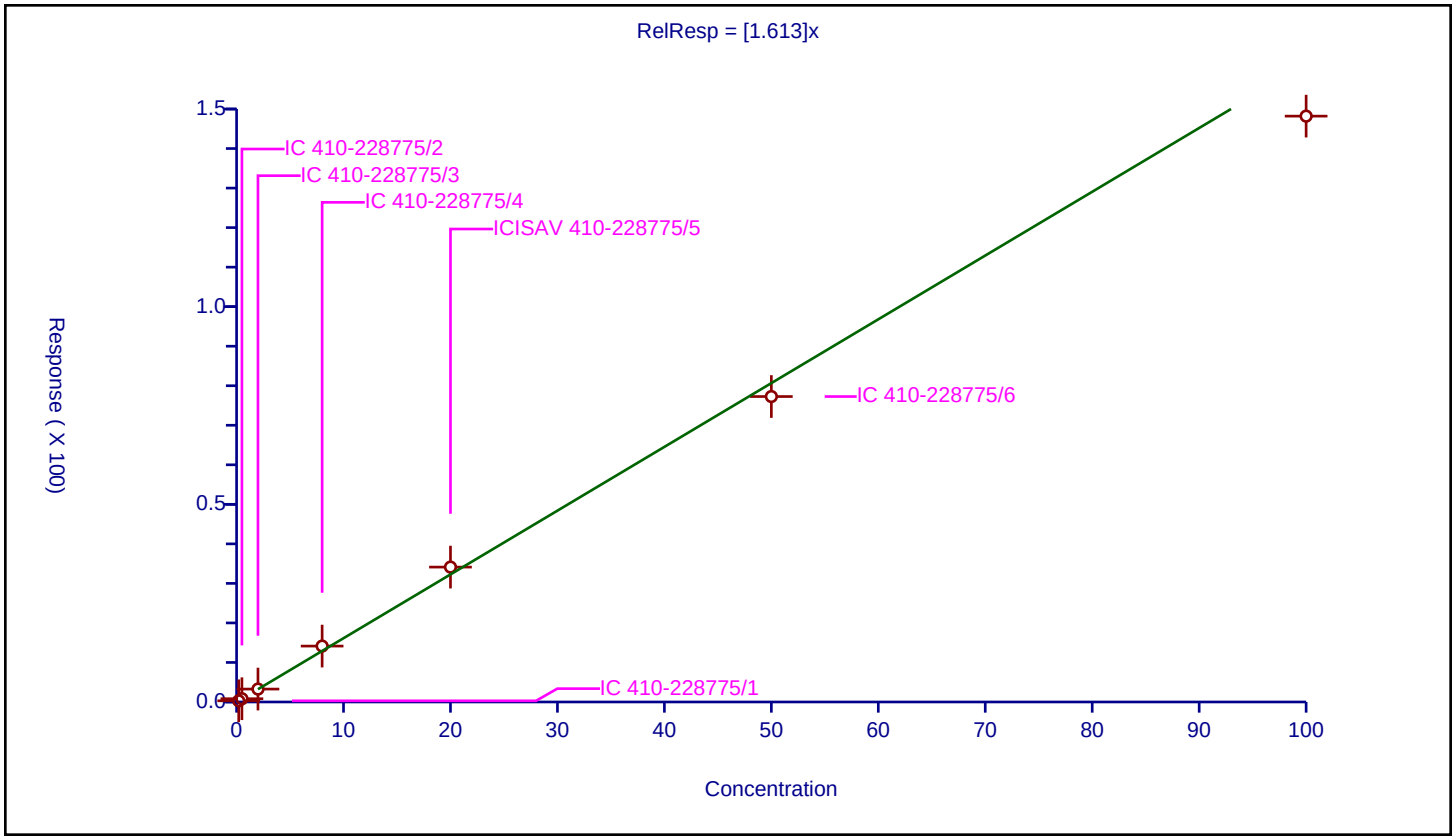
Curve Coefficients

Intercept:	0
Slope:	1.613

Error Coefficients

Standard Error:	48400000
Relative Standard Error:	6.6
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.300606	10.0	8309826.0	1.503028	Y
2	IC 410-228775/2	0.5	0.827954	10.0	7872169.0	1.655907	Y
3	IC 410-228775/3	2.0	3.265727	10.0	6442139.0	1.632864	Y
4	IC 410-228775/4	8.0	14.140481	10.0	6202588.0	1.76756	Y
5	ICISAV 410-228775/5	20.0	34.125633	10.0	5696515.0	1.706282	Y
6	IC 410-228775/6	50.0	77.268683	10.0	7917637.0	1.545374	Y
7	IC 410-228775/7	100.0	148.200774	10.0	6707258.0	1.482008	Y



Calibration / 5:3 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

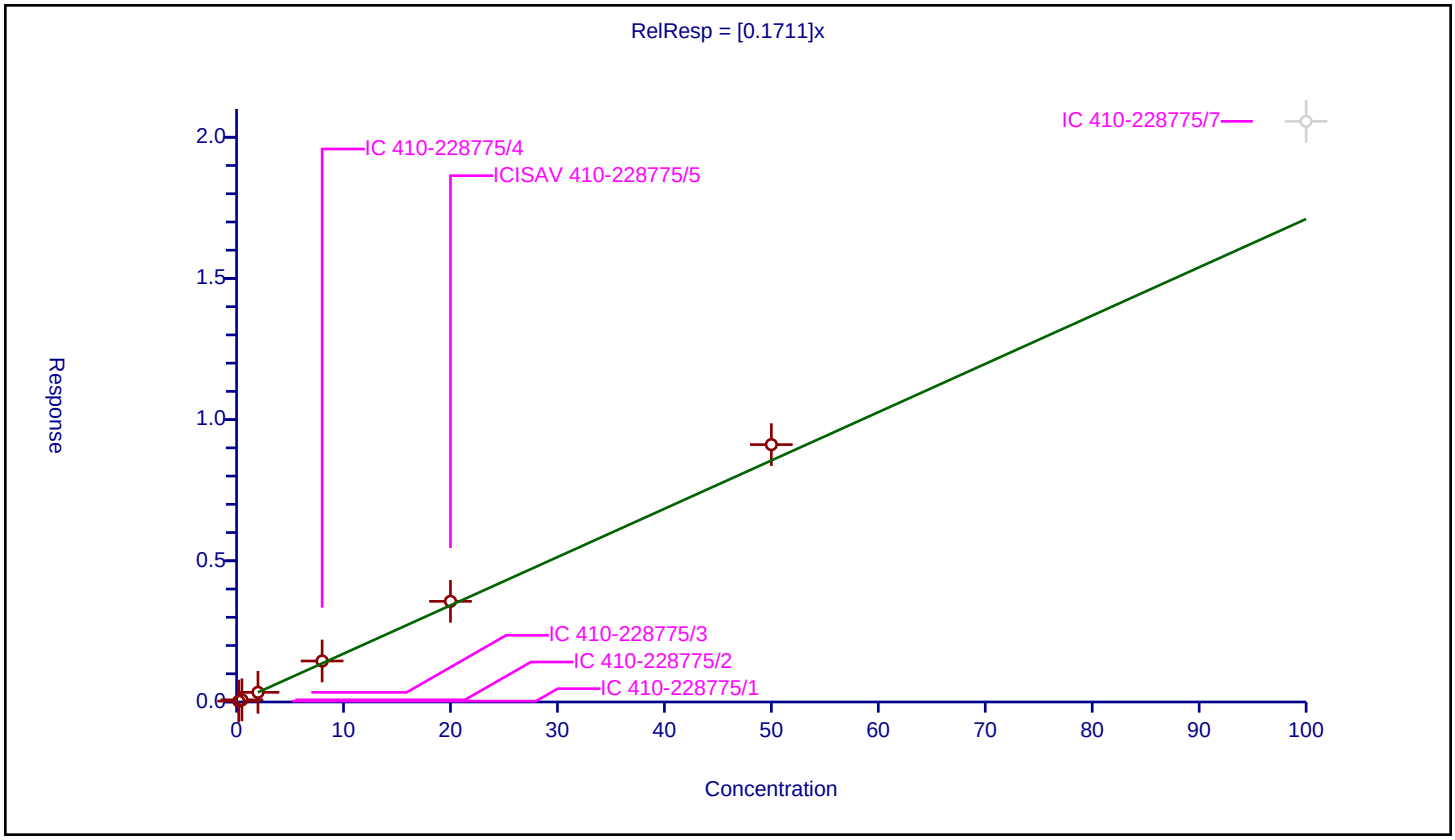
Curve Coefficients

Intercept:	0
Slope:	0.1711

Error Coefficients

Standard Error:	3580000
Relative Standard Error:	7.0
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.031789	10.0	9727517.0	0.158946	Y
2	IC 410-228775/2	0.5	0.077224	10.0	9659262.0	0.154449	Y
3	IC 410-228775/3	2.0	0.341724	10.0	7920631.0	0.170862	Y
4	IC 410-228775/4	8.0	1.45214	10.0	7298974.0	0.181517	Y
5	ICISAV 410-228775/5	20.0	3.564812	10.0	6615575.0	0.178241	Y
6	IC 410-228775/6	50.0	9.114479	10.0	8318053.0	0.18229	Y
7	IC 410-228775/7	100.0	20.563874	10.0	6170933.0	0.205639	N



Calibration / 6:2 FTUCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

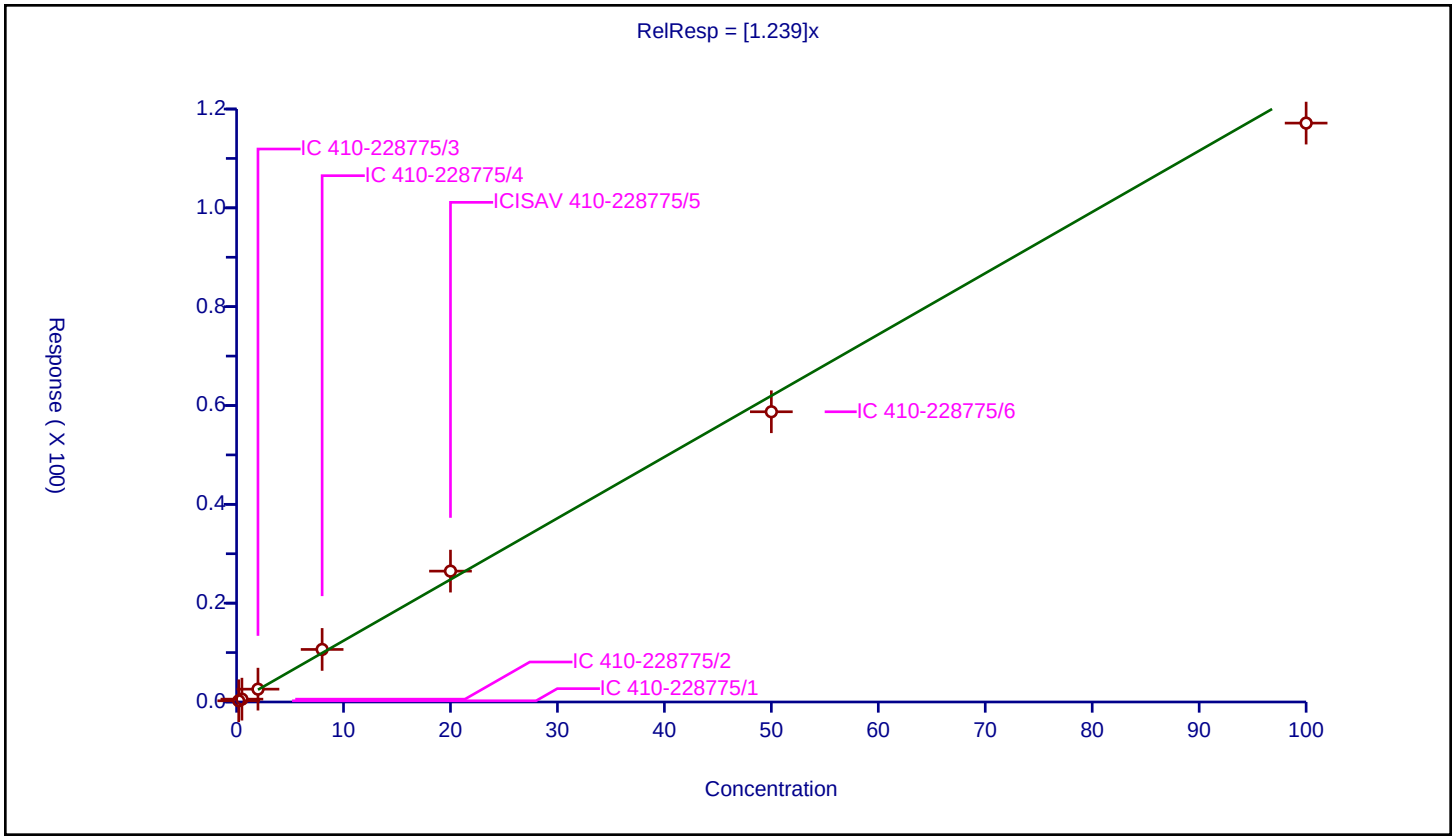
Curve Coefficients

Intercept:	0
Slope:	1.239

Error Coefficients

Standard Error:	21900000
Relative Standard Error:	6.3
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.24673	10.0	5342976.0	1.233648	Y
2	IC 410-228775/2	0.5	0.572113	10.0	4936493.0	1.144225	Y
3	IC 410-228775/3	2.0	2.597539	10.0	3973681.0	1.298769	Y
4	IC 410-228775/4	8.0	10.633082	10.0	4103858.0	1.329135	Y
5	ICISAV 410-228775/5	20.0	26.48461	10.0	3588401.0	1.32423	Y
6	IC 410-228775/6	50.0	58.731156	10.0	4525395.0	1.174623	Y
7	IC 410-228775/7	100.0	117.151995	10.0	3874122.0	1.17152	Y



Calibration / 6:2 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

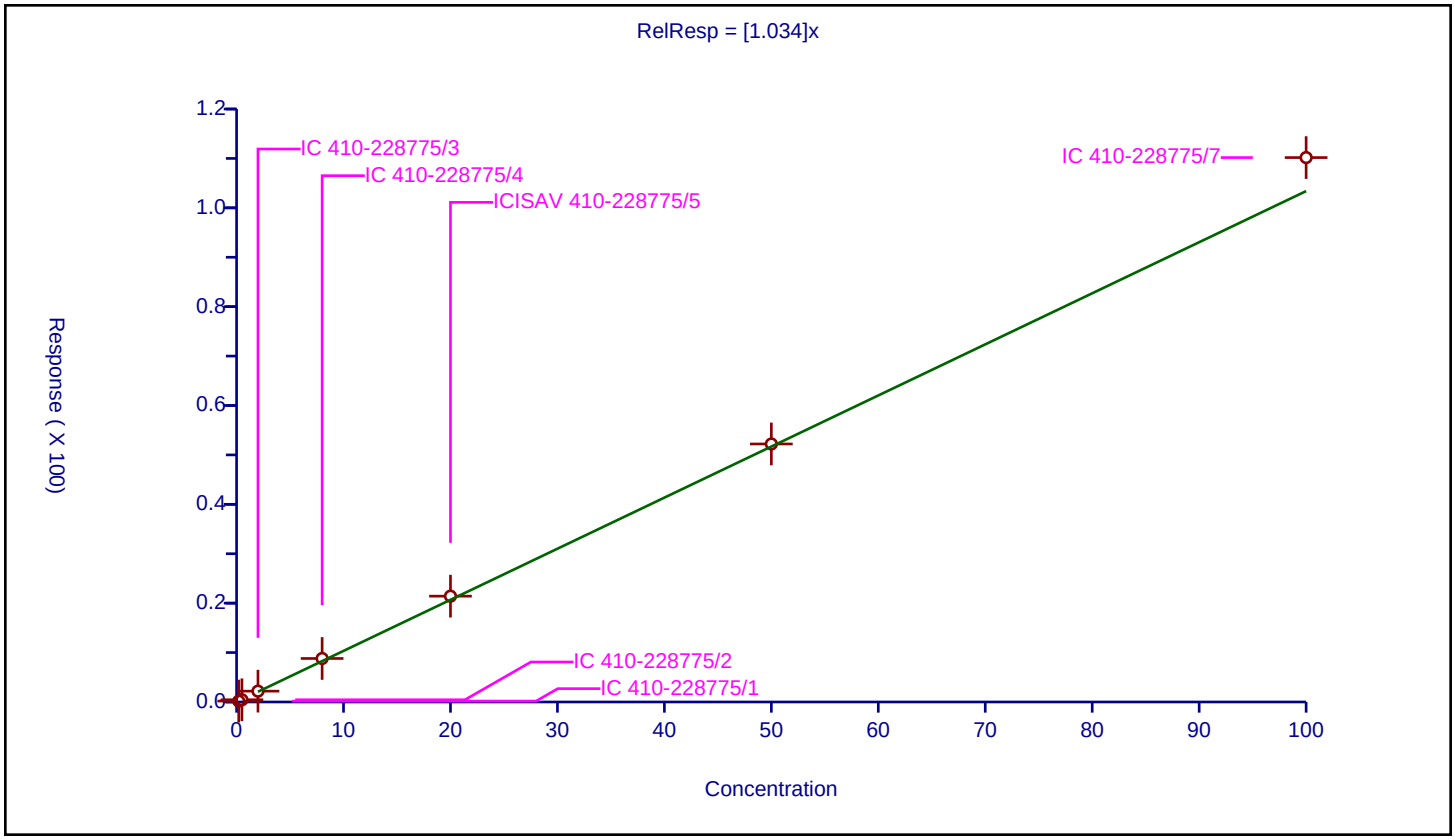
Curve Coefficients

Intercept:	0
Slope:	1.034

Error Coefficients

Standard Error:	3180000
Relative Standard Error:	8.4
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.185134	10.0	868990.0	0.925672	Y
2	IC 410-228775/2	0.5	0.448173	10.0	828987.0	0.896347	Y
3	IC 410-228775/3	2.0	2.195816	10.0	596193.0	1.097908	Y
4	IC 410-228775/4	8.0	8.802538	10.0	607351.0	1.100317	Y
5	ICISAV 410-228775/5	20.0	21.413874	10.0	549745.0	1.070694	Y
6	IC 410-228775/6	50.0	52.211565	10.0	740010.0	1.044231	Y
7	IC 410-228775/7	100.0	110.17175	10.0	603551.0	1.101718	Y



Calibration / PFO4DA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

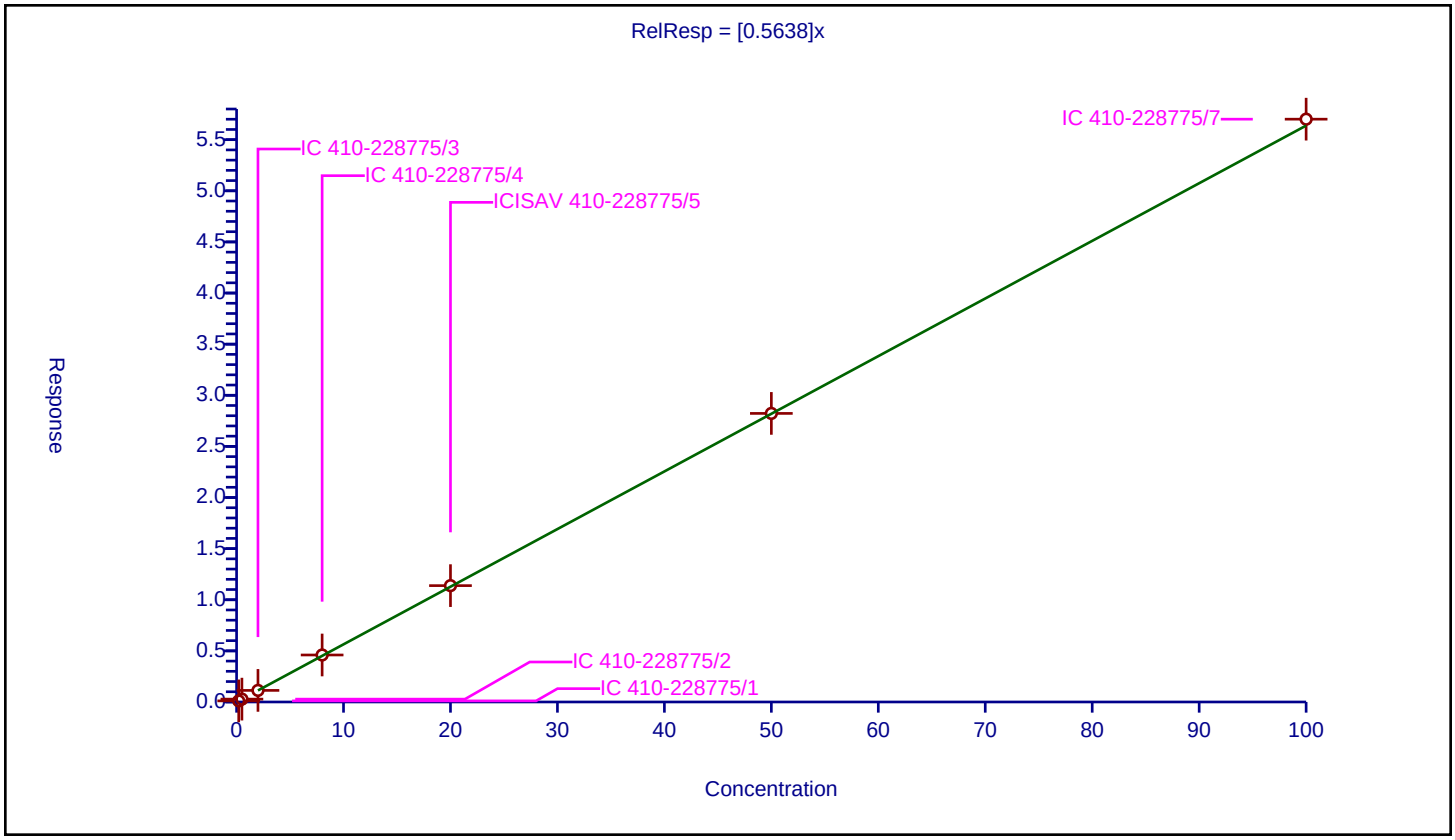
Curve Coefficients

Intercept:	0
Slope:	0.5638

Error Coefficients

Standard Error:	18300000
Relative Standard Error:	2.0
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.108127	10.0	8309826.0	0.540637	Y
2	IC 410-228775/2	0.5	0.280624	10.0	7872169.0	0.561248	Y
3	IC 410-228775/3	2.0	1.132587	10.0	6442139.0	0.566293	Y
4	IC 410-228775/4	8.0	4.597852	10.0	6202588.0	0.574731	Y
5	ICISAV 410-228775/5	20.0	11.380542	10.0	5696515.0	0.569027	Y
6	IC 410-228775/6	50.0	28.225066	10.0	7917637.0	0.564501	Y
7	IC 410-228775/7	100.0	57.006248	10.0	6707258.0	0.570062	Y



Calibration / PS Acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

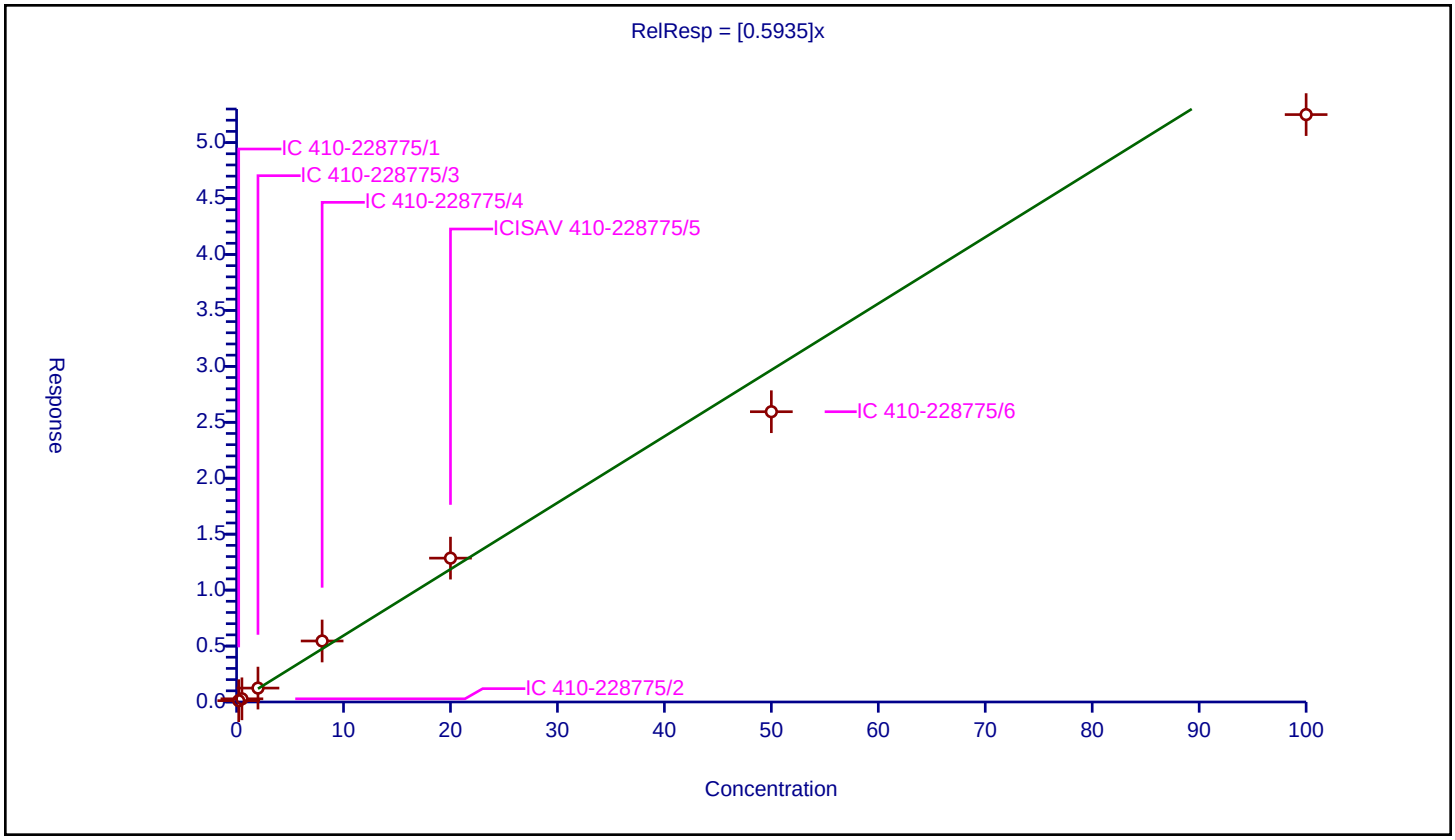
Curve Coefficients

Intercept:	0
Slope:	0.5935

Error Coefficients

Standard Error:	14100000
Relative Standard Error:	10.2
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.118915	9.3	6243052.0	0.594574	Y
2	IC 410-228775/2	0.5	0.284723	9.3	5624354.0	0.569447	Y
3	IC 410-228775/3	2.0	1.243393	9.3	4879064.0	0.621697	Y
4	IC 410-228775/4	8.0	5.453294	9.3	4772536.0	0.681662	Y
5	ICISAV 410-228775/5	20.0	12.857869	9.3	4529073.0	0.642893	Y
6	IC 410-228775/6	50.0	25.946014	9.3	6097979.0	0.51892	Y
7	IC 410-228775/7	100.0	52.50174	9.3	5188819.0	0.525017	Y



Calibration / EVE Acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

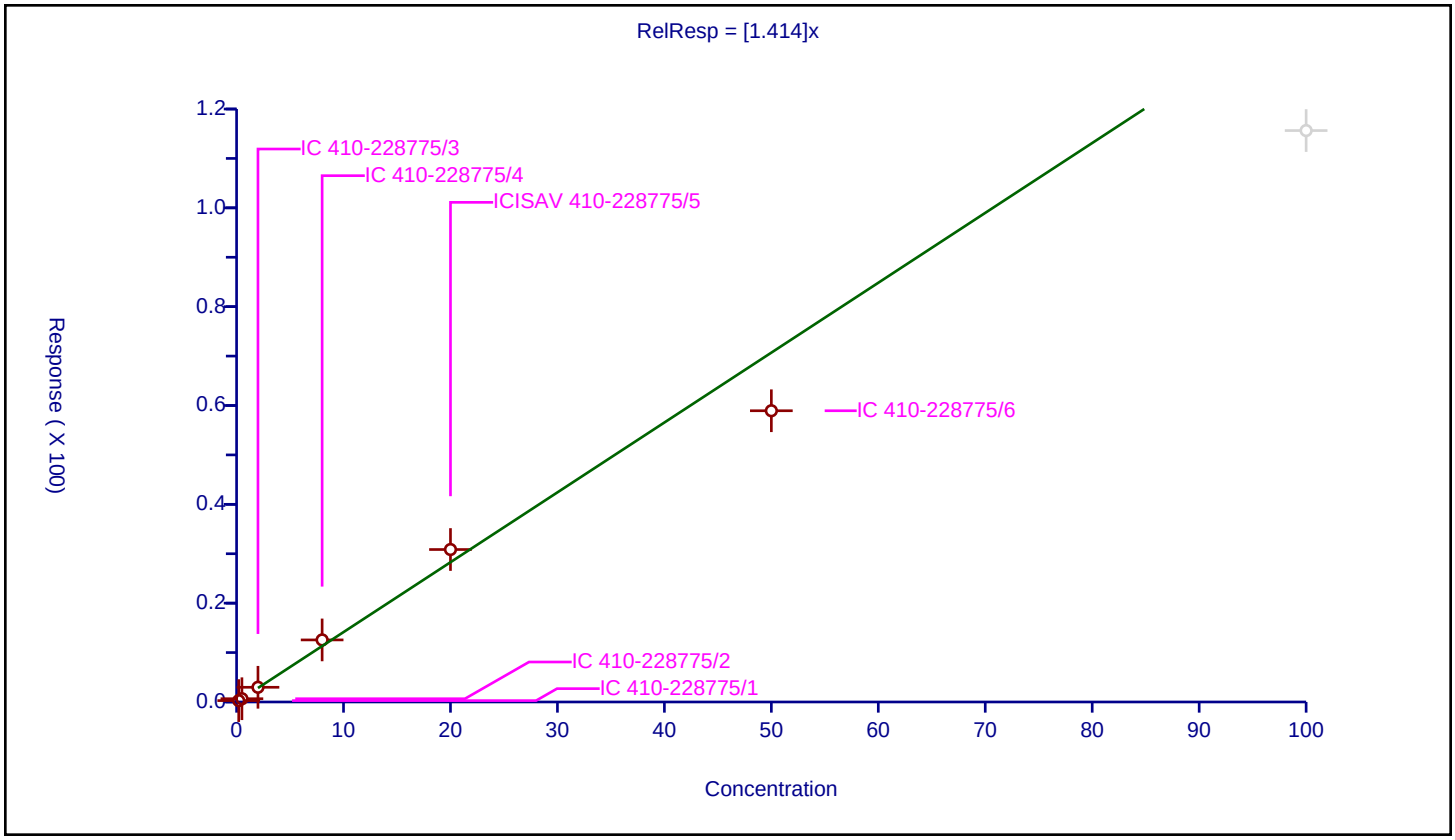
Curve Coefficients

Intercept:	0
Slope:	1.414

Error Coefficients

Standard Error:	22600000
Relative Standard Error:	10.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.276351	10.0	8309826.0	1.381756	Y
2	IC 410-228775/2	0.5	0.661766	10.0	7872169.0	1.323531	Y
3	IC 410-228775/3	2.0	2.973742	10.0	6442139.0	1.486871	Y
4	IC 410-228775/4	8.0	12.562356	10.0	6202588.0	1.570295	Y
5	ICISAV 410-228775/5	20.0	30.853852	10.0	5696515.0	1.542693	Y
6	IC 410-228775/6	50.0	58.936932	10.0	7917637.0	1.178739	Y
7	IC 410-228775/7	100.0	115.642224	10.0	6707258.0	1.156422	N



Calibration / PFECHS

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

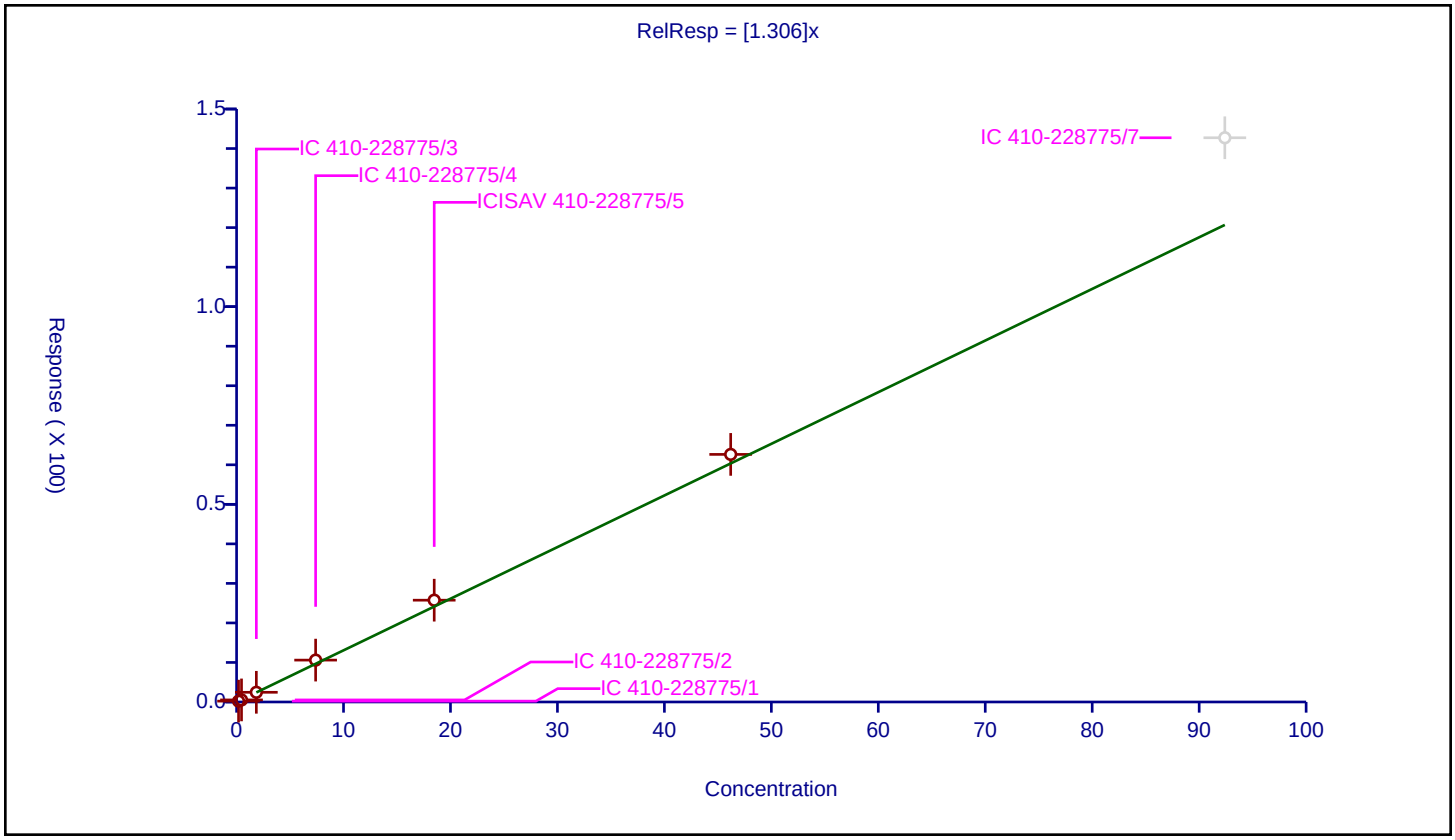
Curve Coefficients

Intercept:	0
Slope:	1.306

Error Coefficients

Standard Error:	17100000
Relative Standard Error:	9.1
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1848	0.22131	9.46	6097309.0	1.197563	Y
2	IC 410-228775/2	0.462	0.521527	9.46	5508806.0	1.128847	Y
3	IC 410-228775/3	1.848	2.453252	9.46	4763394.0	1.327517	Y
4	IC 410-228775/4	7.392	10.596442	9.46	4520164.0	1.433501	Y
5	ICISAV 410-228775/5	18.48	25.751783	9.46	4211545.0	1.393495	Y
6	IC 410-228775/6	46.2	62.62982	9.46	5440959.0	1.355624	Y
7	IC 410-228775/7	92.4	142.72555	9.46	4182178.0	1.544649	N



Calibration / 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

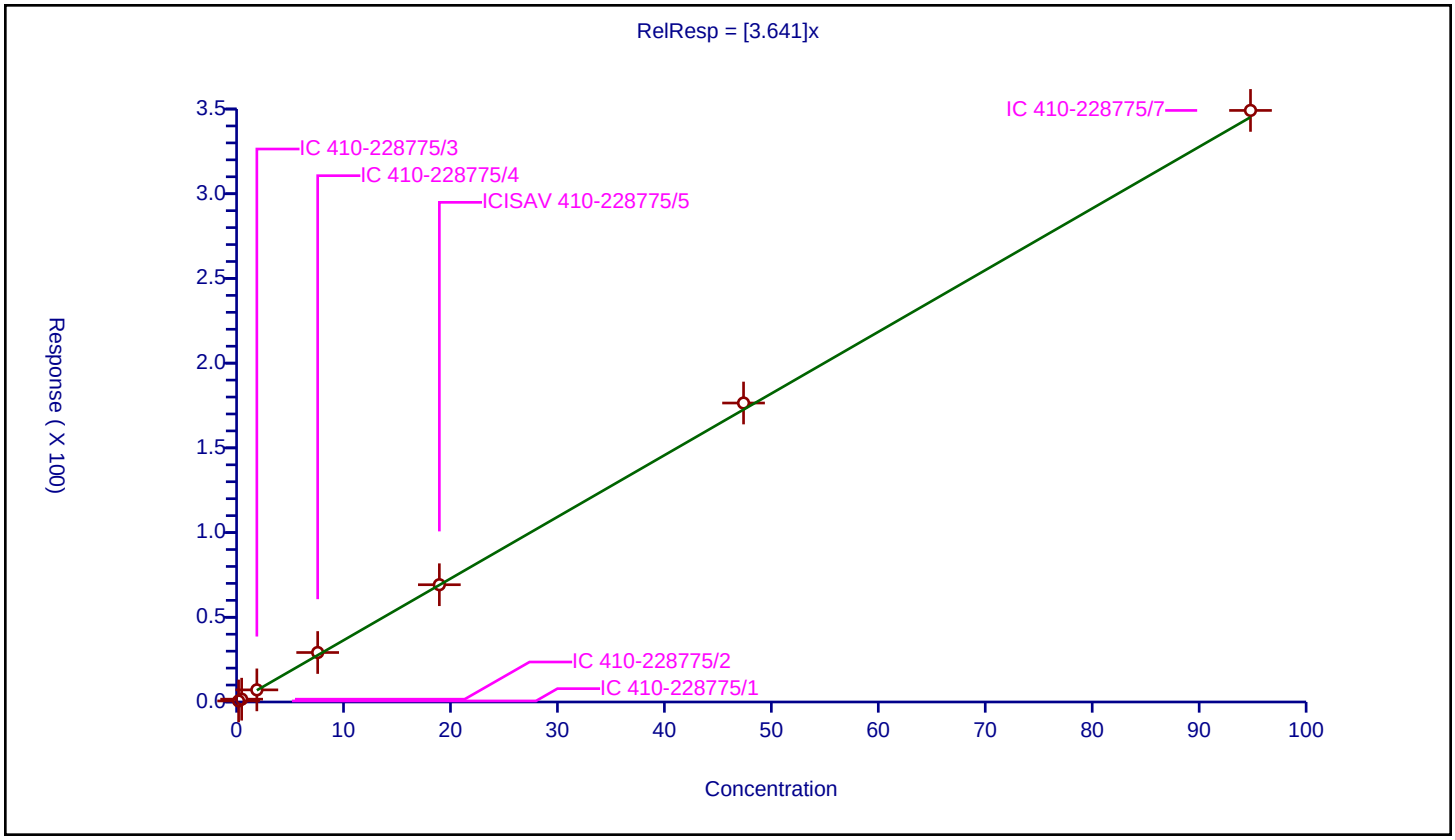
Curve Coefficients

Intercept:	0
Slope:	3.641

Error Coefficients

Standard Error:	4510000
Relative Standard Error:	5.1
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1896	0.624987	9.5	355961.0	3.296345	Y
2	IC 410-228775/2	0.474	1.665347	9.5	351712.0	3.51339	Y
3	IC 410-228775/3	1.896	7.147813	9.5	304408.0	3.769944	Y
4	IC 410-228775/4	7.584	29.200885	9.5	291580.0	3.850328	Y
5	ICISAV 410-228775/5	18.96	69.216674	9.5	264196.0	3.650668	Y
6	IC 410-228775/6	47.4	176.465652	9.5	309418.0	3.722904	Y
7	IC 410-228775/7	94.8	349.161101	9.5	249663.0	3.683134	Y



Calibration / Perfluoroheptanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

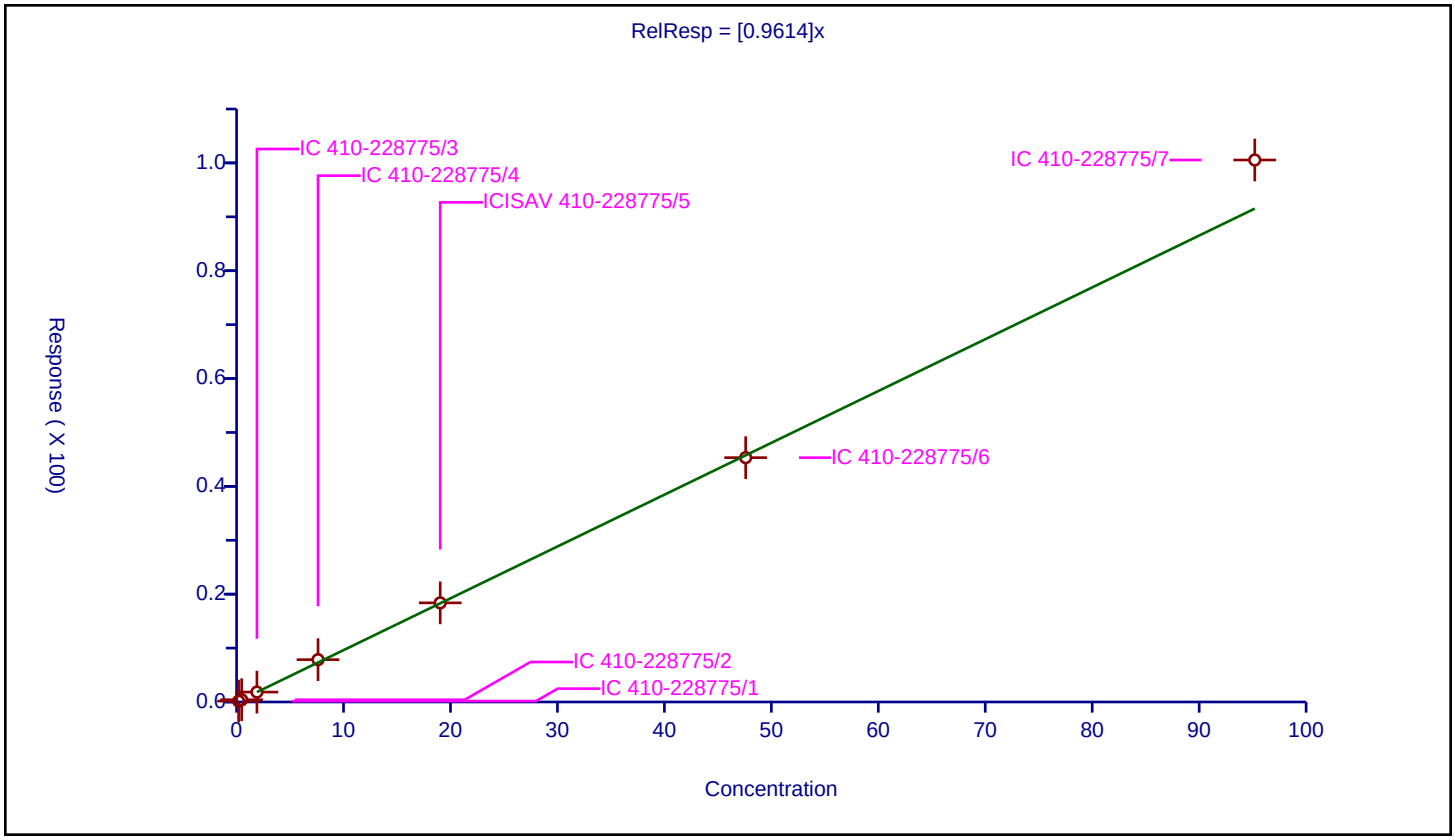
Curve Coefficients

Intercept:	0
Slope:	0.9614

Error Coefficients

Standard Error:	21400000
Relative Standard Error:	7.0
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1904	0.166718	9.46	6097309.0	0.875622	Y
2	IC 410-228775/2	0.476	0.420184	9.46	5508806.0	0.882739	Y
3	IC 410-228775/3	1.904	1.838441	9.46	4763394.0	0.965568	Y
4	IC 410-228775/4	7.616	7.85464	9.46	4520164.0	1.031334	Y
5	ICISAV 410-228775/5	19.04	18.392027	9.46	4211545.0	0.965968	Y
6	IC 410-228775/6	47.6	45.324676	9.46	5440959.0	0.952199	Y
7	IC 410-228775/7	95.2	100.541659	9.46	4182178.0	1.05611	Y



Calibration / Perfluorooctanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

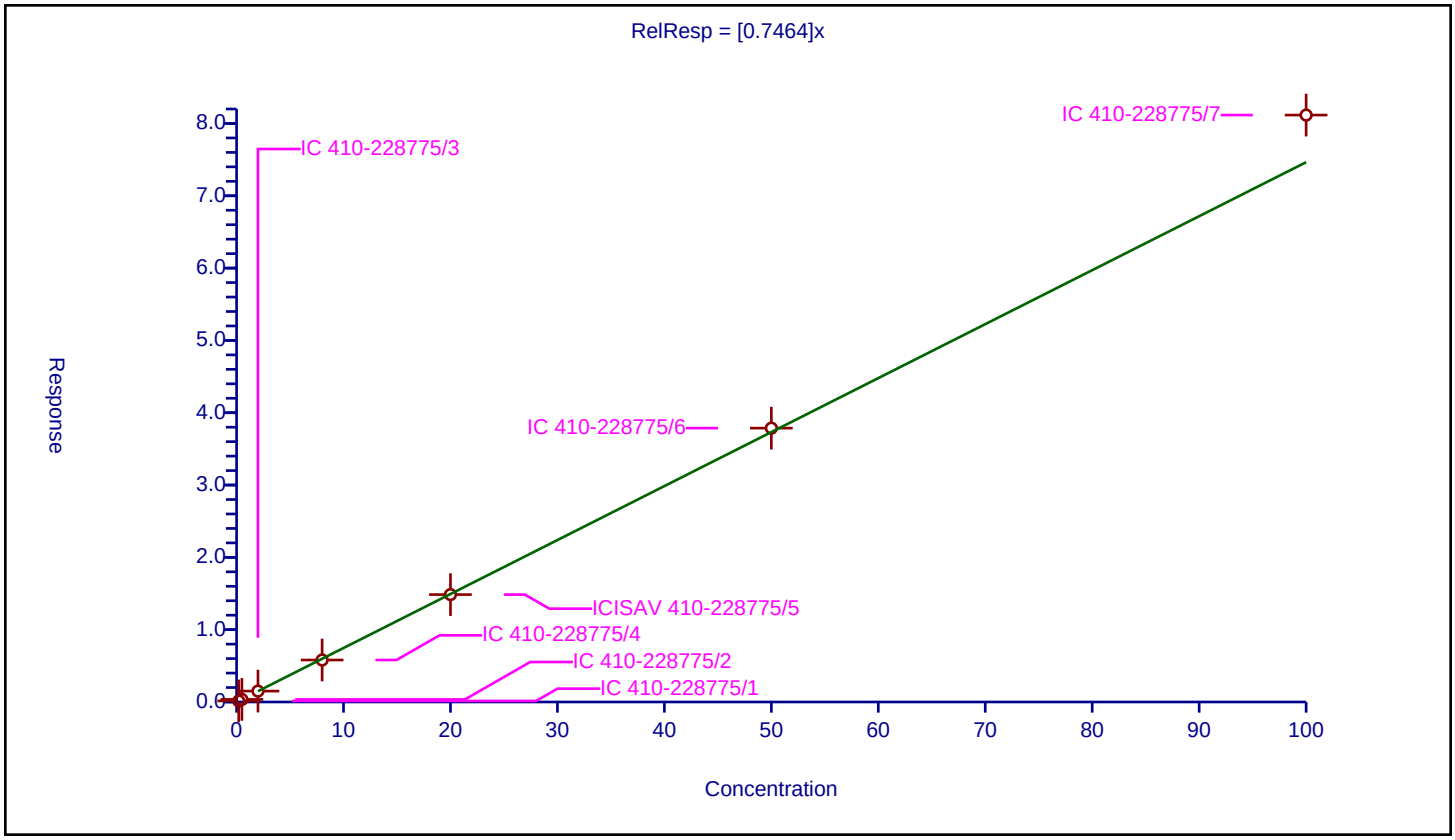
Curve Coefficients

Intercept:	0
Slope:	0.7464

Error Coefficients

Standard Error:	25600000
Relative Standard Error:	4.5
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.144932	10.0	9173055.0	0.72466	Y
2	IC 410-228775/2	0.5	0.354943	10.0	9010326.0	0.709886	Y
3	IC 410-228775/3	2.0	1.505905	10.0	7533176.0	0.752953	Y
4	IC 410-228775/4	8.0	5.806154	10.0	7270047.0	0.725769	Y
5	ICISAV 410-228775/5	20.0	14.853085	10.0	6618182.0	0.742654	Y
6	IC 410-228775/6	50.0	37.869078	10.0	8206552.0	0.757382	Y
7	IC 410-228775/7	100.0	81.161164	10.0	6587982.0	0.811612	Y



Calibration / FHxSA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

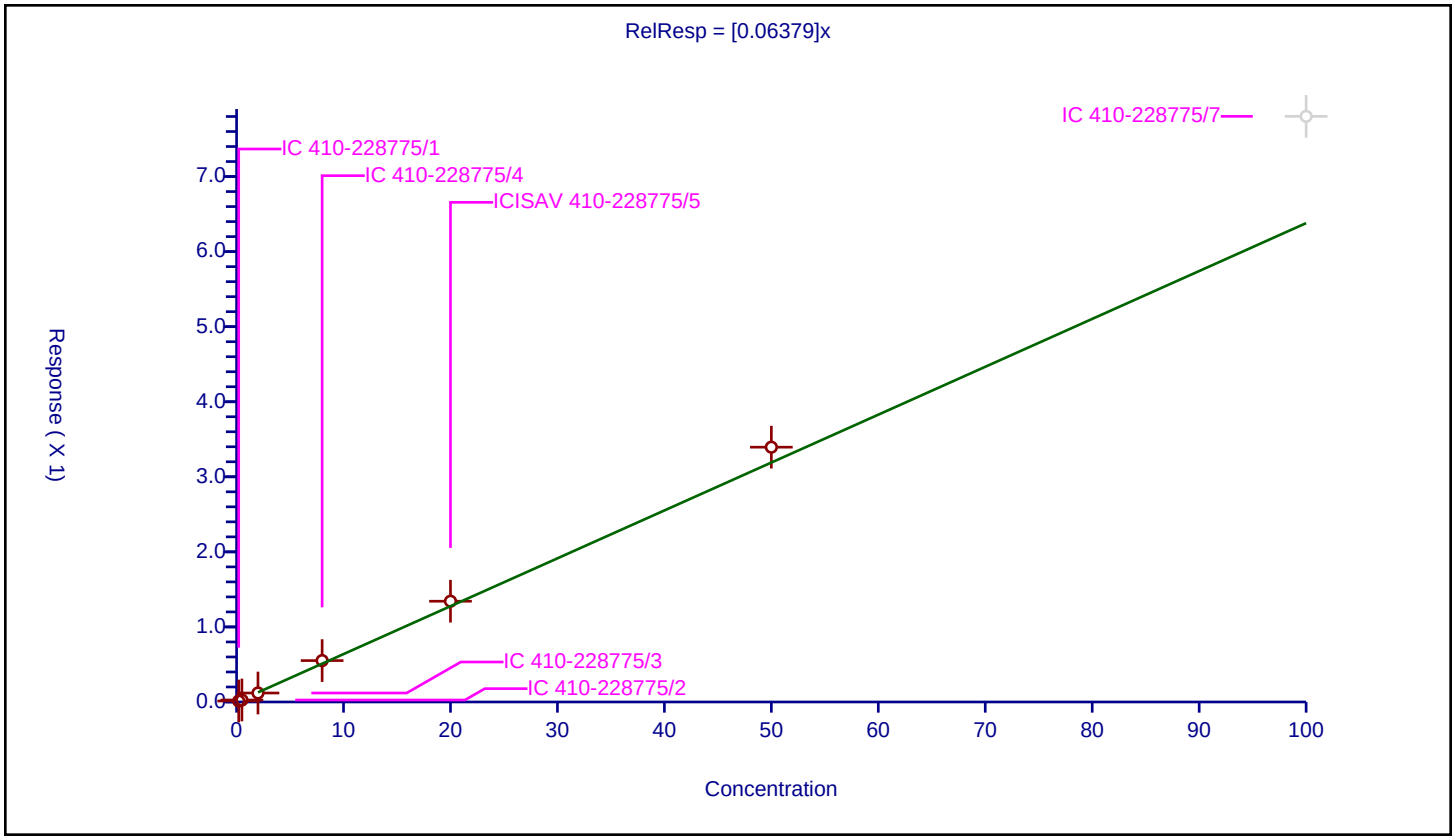
Curve Coefficients

Intercept:	0
Slope:	0.06379

Error Coefficients

Standard Error:	921000
Relative Standard Error:	9.9
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.013265	9.46	6097309.0	0.066327	Y
2	IC 410-228775/2	0.5	0.026386	9.46	5508806.0	0.052771	Y
3	IC 410-228775/3	2.0	0.119407	9.46	4763394.0	0.059703	Y
4	IC 410-228775/4	8.0	0.551517	9.46	4520164.0	0.06894	Y
5	ICISAV 410-228775/5	20.0	1.342544	9.46	4211545.0	0.067127	Y
6	IC 410-228775/6	50.0	3.394702	9.46	5440959.0	0.067894	Y
7	IC 410-228775/7	100.0	7.802453	9.46	4182178.0	0.078025	N



Calibration / TAF

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

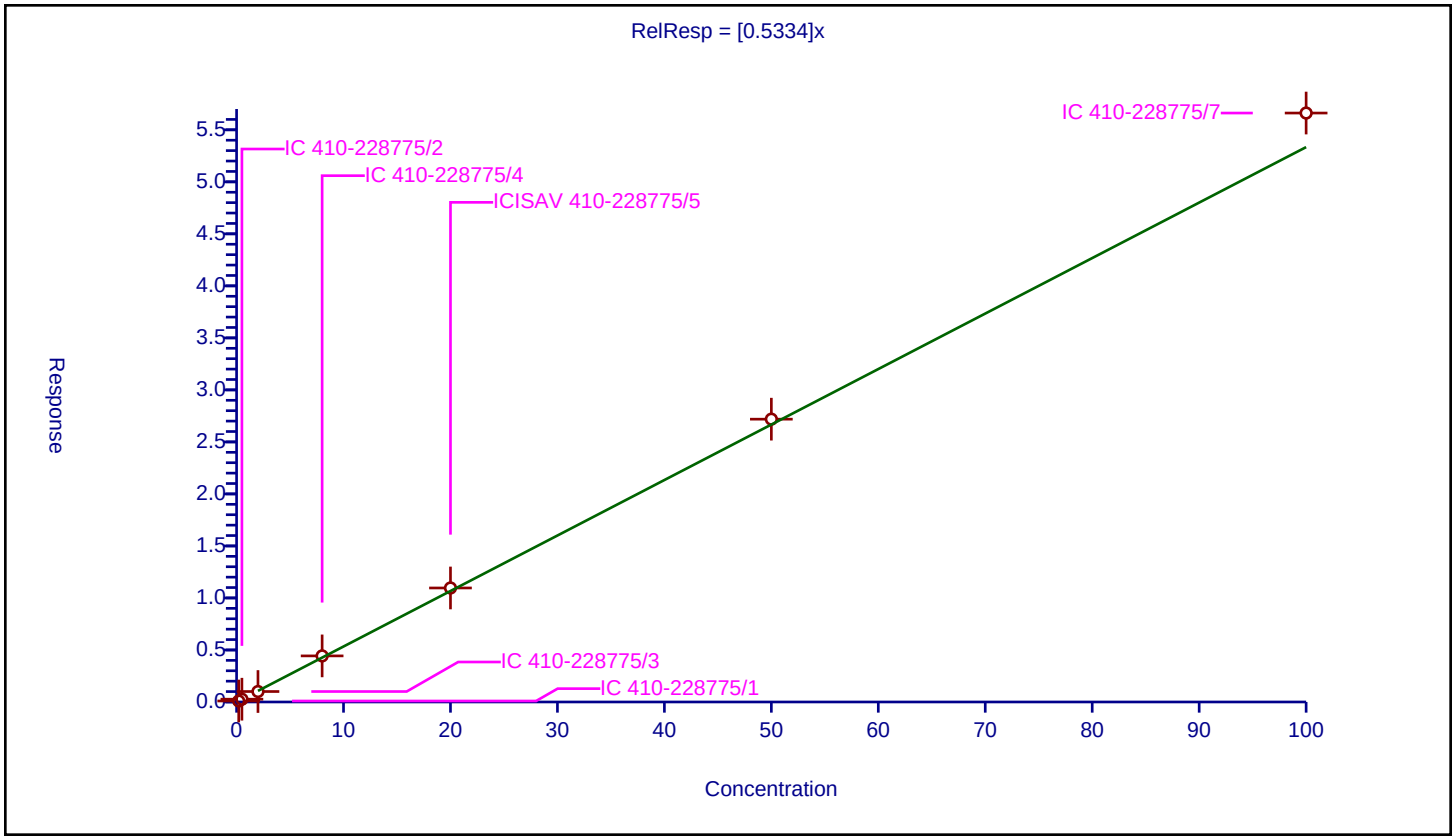
Curve Coefficients

Intercept:	0
Slope:	0.5334

Error Coefficients

Standard Error:	18000000
Relative Standard Error:	5.4
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.097087	10.0	8309826.0	0.485437	Y
2	IC 410-228775/2	0.5	0.266831	10.0	7872169.0	0.533662	Y
3	IC 410-228775/3	2.0	1.005804	10.0	6442139.0	0.502902	Y
4	IC 410-228775/4	8.0	4.430119	10.0	6202588.0	0.553765	Y
5	ICISAV 410-228775/5	20.0	10.960206	10.0	5696515.0	0.54801	Y
6	IC 410-228775/6	50.0	27.18684	10.0	7917637.0	0.543737	Y
7	IC 410-228775/7	100.0	56.612851	10.0	6707258.0	0.566129	Y



Calibration / Perfluorooctanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

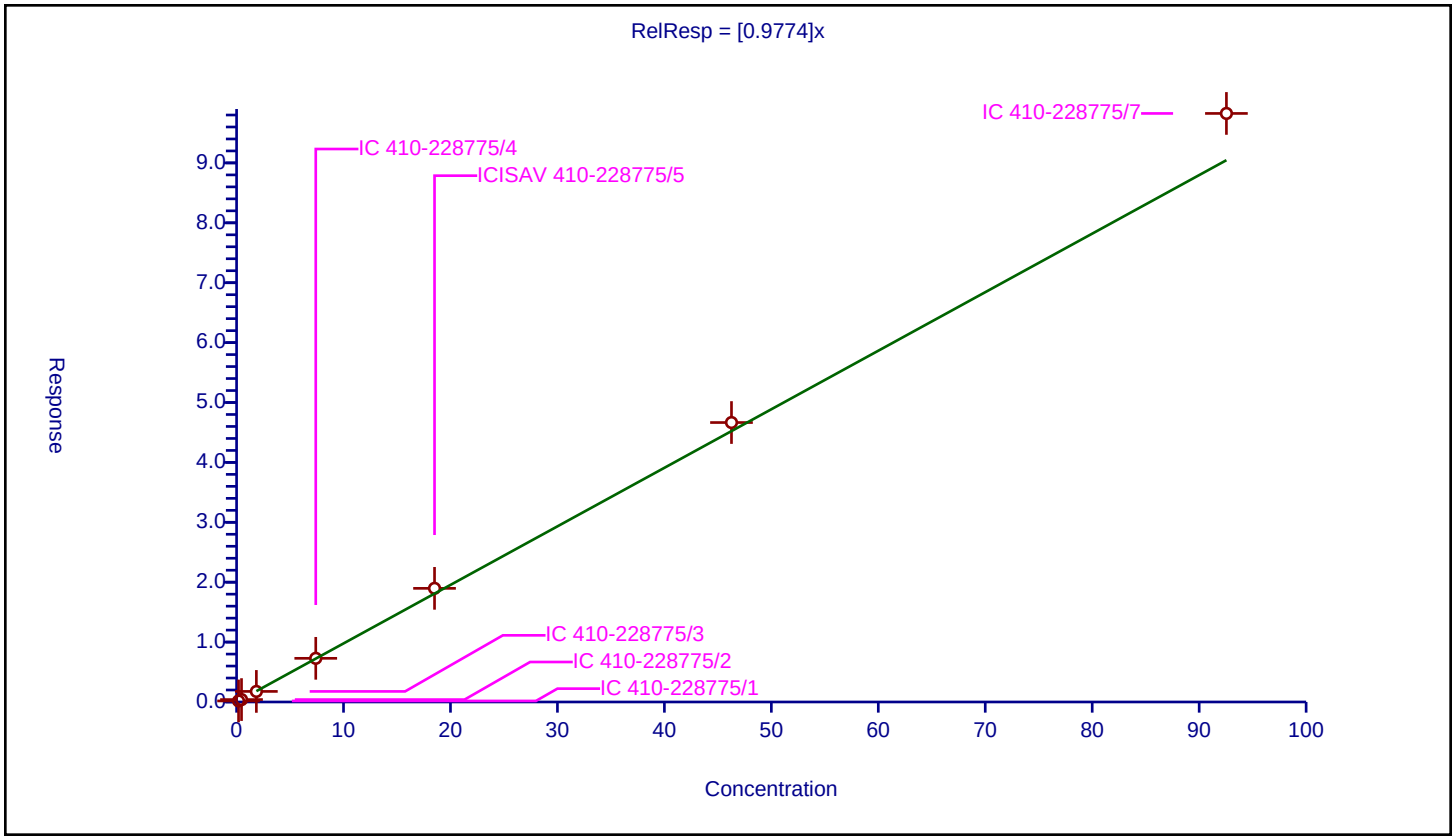
Curve Coefficients

Intercept:	0
Slope:	0.9774

Error Coefficients

Standard Error:	24700000
Relative Standard Error:	6.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1851	0.174452	9.56	6295318.0	0.942477	Y
2	IC 410-228775/2	0.46275	0.401192	9.56	5942811.0	0.866973	Y
3	IC 410-228775/3	1.851	1.763016	9.56	5096452.0	0.952467	Y
4	IC 410-228775/4	7.404	7.292503	9.56	4848413.0	0.984941	Y
5	ICISAV 410-228775/5	18.51	18.972225	9.56	4613122.0	1.024972	Y
6	IC 410-228775/6	46.275	46.656809	9.56	5991956.0	1.008251	Y
7	IC 410-228775/7	92.55	98.262122	9.56	5051930.0	1.061719	Y



Calibration / Perfluorononanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

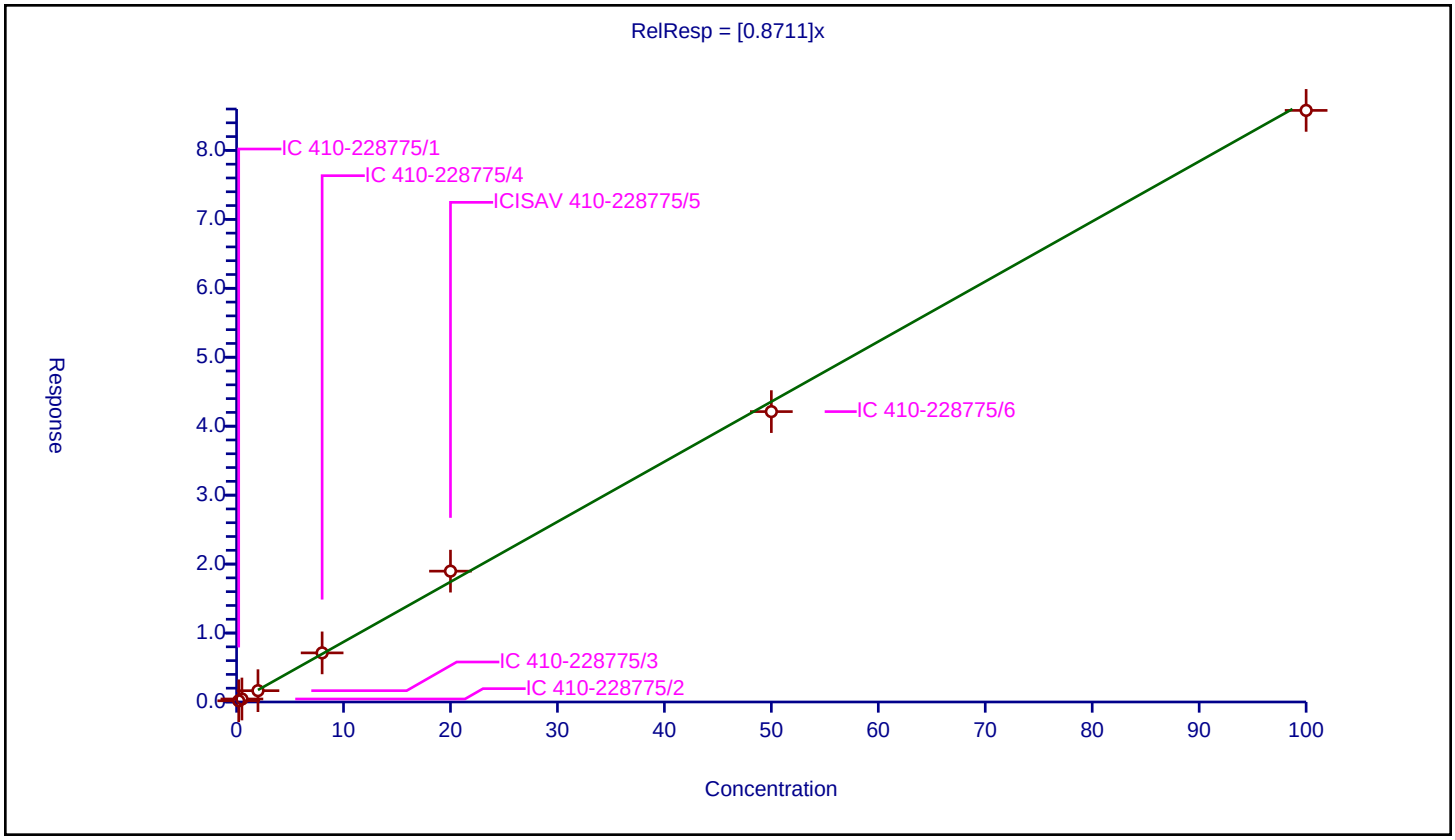
Curve Coefficients

Intercept:	0
Slope:	0.8711

Error Coefficients

Standard Error:	21200000
Relative Standard Error:	4.7
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.174228	10.0	6597348.0	0.871138	Y
2	IC 410-228775/2	0.5	0.433737	10.0	6149718.0	0.867474	Y
3	IC 410-228775/3	2.0	1.639878	10.0	5406115.0	0.819939	Y
4	IC 410-228775/4	8.0	7.122024	10.0	4891698.0	0.890253	Y
5	ICISAV 410-228775/5	20.0	18.975012	10.0	4425816.0	0.948751	Y
6	IC 410-228775/6	50.0	42.114977	10.0	6298488.0	0.8423	Y
7	IC 410-228775/7	100.0	85.799596	10.0	5097145.0	0.857996	Y



Calibration / Perfluoro-2,5-dimethyl-3,6-dioxanonanoic acid (HFPO-TrA)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

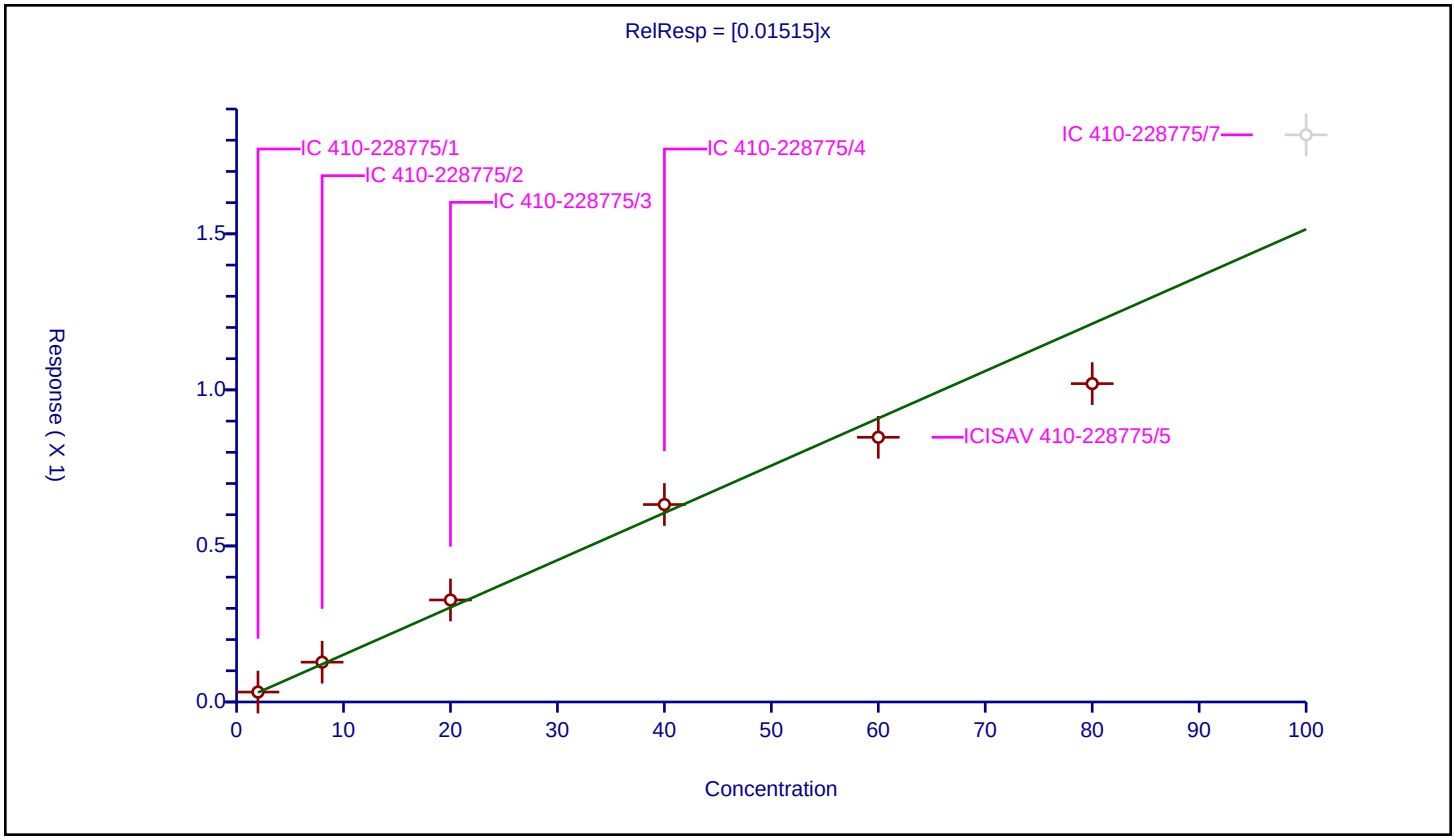
Curve Coefficients

Intercept:	0
Slope:	0.01515

Error Coefficients

Standard Error:	119000
Relative Standard Error:	9.3
Correlation Coefficient:	0.971
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	2.0	0.031796	10.0	2025738.0	0.015898	Y
2	IC 410-228775/2	8.0	0.127588	10.0	1924782.0	0.015949	Y
3	IC 410-228775/3	20.0	0.326839	10.0	1549660.0	0.016342	Y
4	IC 410-228775/4	40.0	0.632672	10.0	1512143.0	0.015817	Y
5	ICISAV 410-228775/5	60.0	0.84814	10.0	1441967.0	0.014136	Y
6	IC 410-228775/6	80.0	1.020124	10.0	2054848.0	0.012752	Y
7	IC 410-228775/7	100.0	1.817328	10.0	1627989.0	0.018173	N



Calibration / 7:3 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

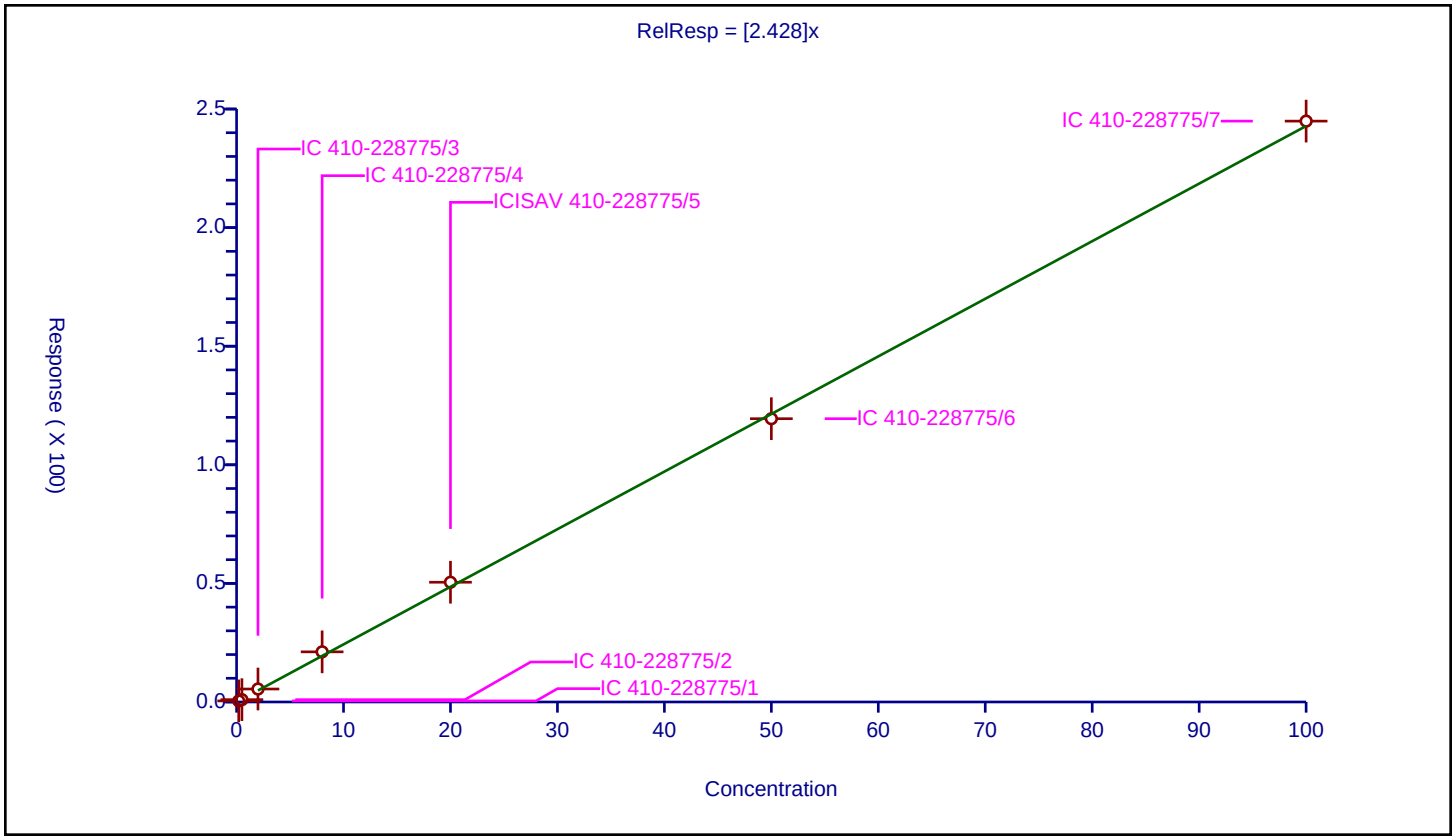
Curve Coefficients

Intercept:	0
Slope:	2.428

Error Coefficients

Standard Error:	7140000
Relative Standard Error:	10.3
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.457197	10.0	868990.0	2.285987	Y
2	IC 410-228775/2	0.5	0.986626	10.0	828987.0	1.973252	Y
3	IC 410-228775/3	2.0	5.467994	10.0	596193.0	2.733997	Y
4	IC 410-228775/4	8.0	21.145022	10.0	607351.0	2.643128	Y
5	ICISAV 410-228775/5	20.0	50.484734	10.0	549745.0	2.524237	Y
6	IC 410-228775/6	50.0	119.436791	10.0	740010.0	2.388736	Y
7	IC 410-228775/7	100.0	244.892627	10.0	603551.0	2.448926	Y



Calibration / 8:2 FTUCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

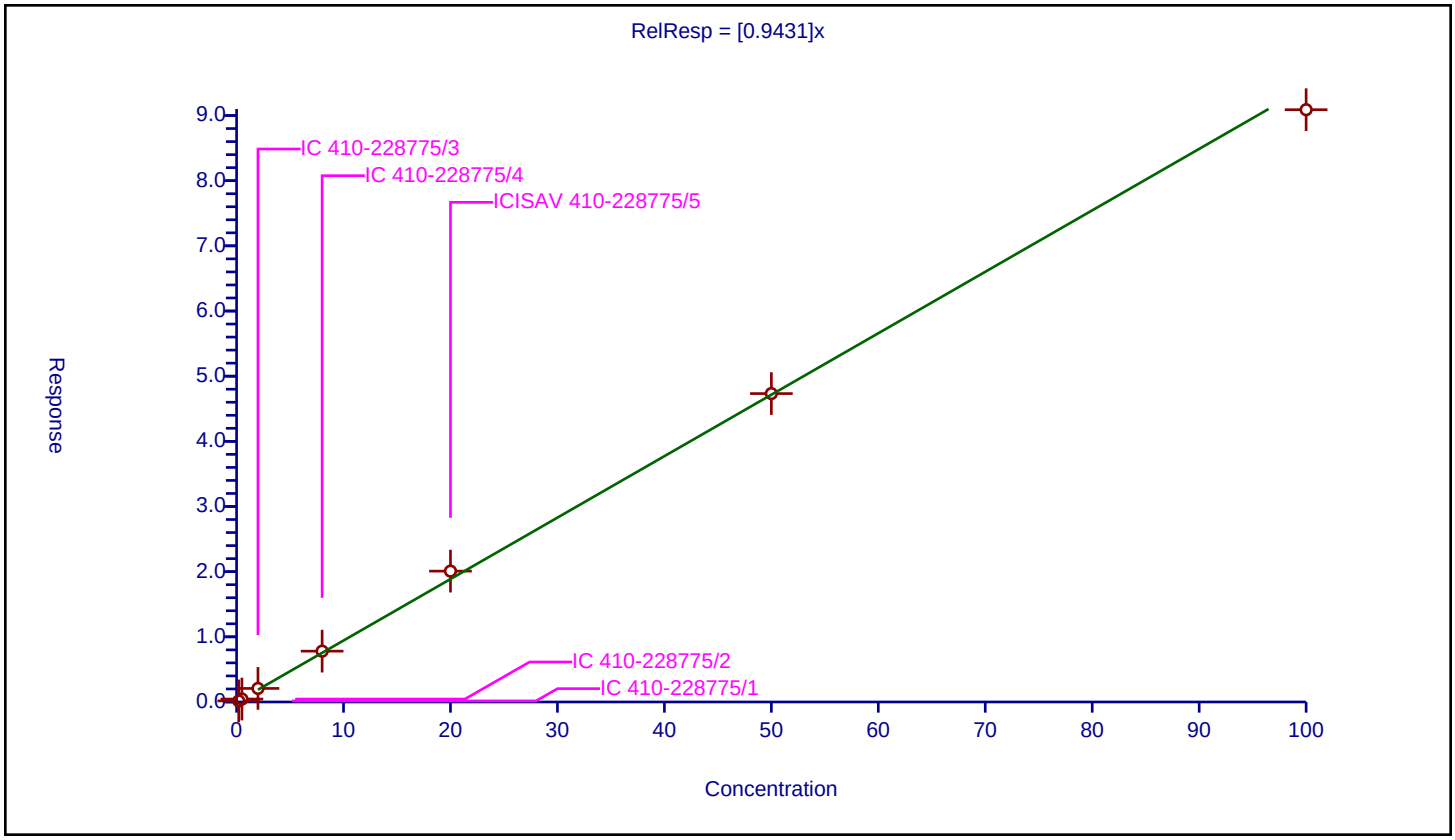
Curve Coefficients

Intercept:	0
Slope:	0.9431

Error Coefficients

Standard Error:	16000000
Relative Standard Error:	7.7
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.164444	10.0	5576232.0	0.822222	Y
2	IC 410-228775/2	0.5	0.451988	10.0	5217524.0	0.903977	Y
3	IC 410-228775/3	2.0	2.081132	10.0	4067561.0	1.040566	Y
4	IC 410-228775/4	8.0	7.800662	10.0	4295057.0	0.975083	Y
5	ICISAV 410-228775/5	20.0	20.084303	10.0	3654792.0	1.004215	Y
6	IC 410-228775/6	50.0	47.331803	10.0	4316597.0	0.946636	Y
7	IC 410-228775/7	100.0	90.892729	10.0	3579125.0	0.908927	Y



Calibration / 8:2 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

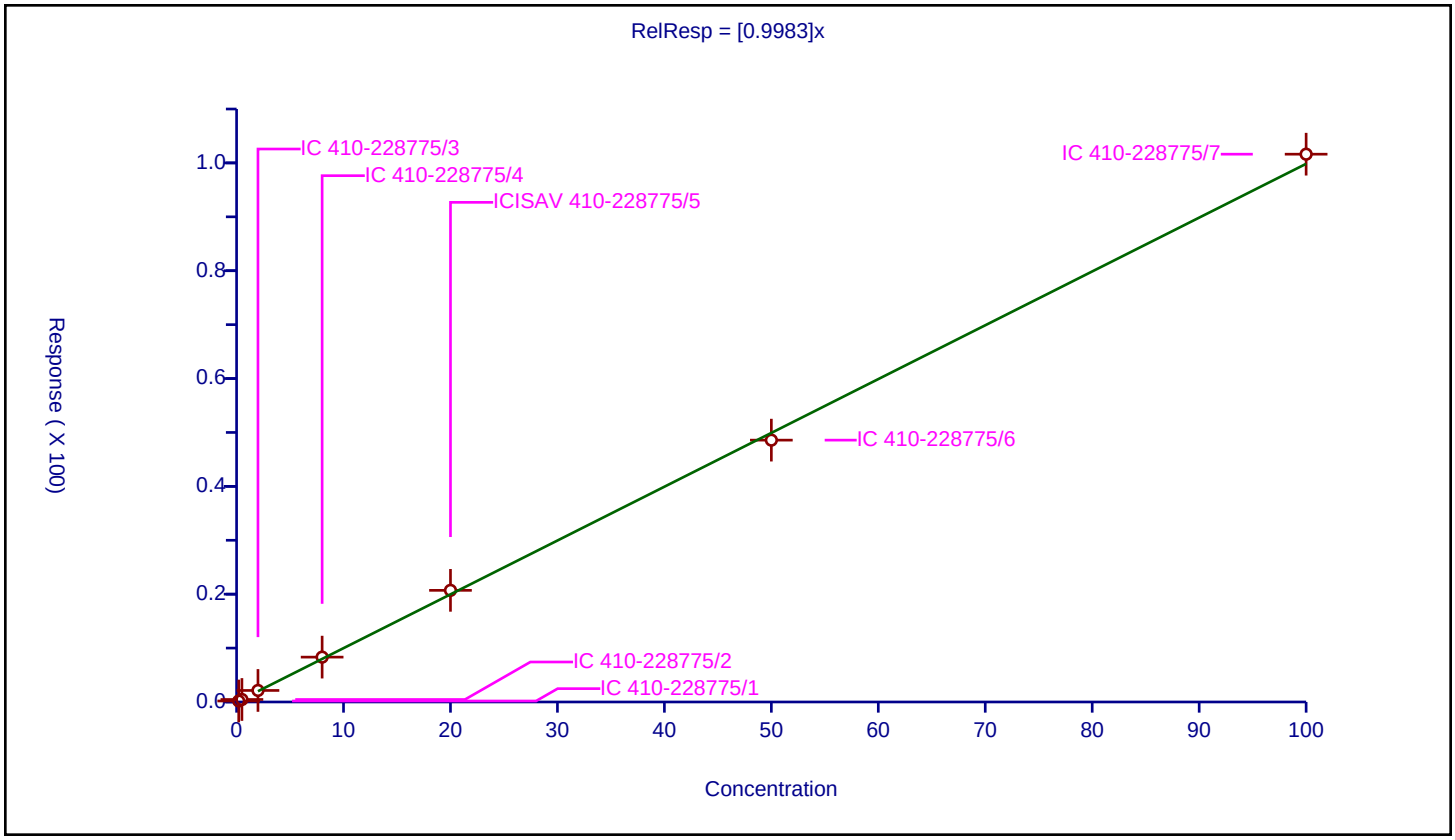
Curve Coefficients

Intercept:	0
Slope:	0.9983

Error Coefficients

Standard Error:	2020000
Relative Standard Error:	5.7
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.186247	10.0	648493.0	0.931236	Y
2	IC 410-228775/2	0.5	0.461368	10.0	603445.0	0.922735	Y
3	IC 410-228775/3	2.0	2.141621	10.0	449524.0	1.07081	Y
4	IC 410-228775/4	8.0	8.32335	10.0	444720.0	1.040419	Y
5	ICISAV 410-228775/5	20.0	20.70812	10.0	395964.0	1.035406	Y
6	IC 410-228775/6	50.0	48.577131	10.0	518045.0	0.971543	Y
7	IC 410-228775/7	100.0	101.619365	10.0	409321.0	1.016194	Y



Calibration / 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

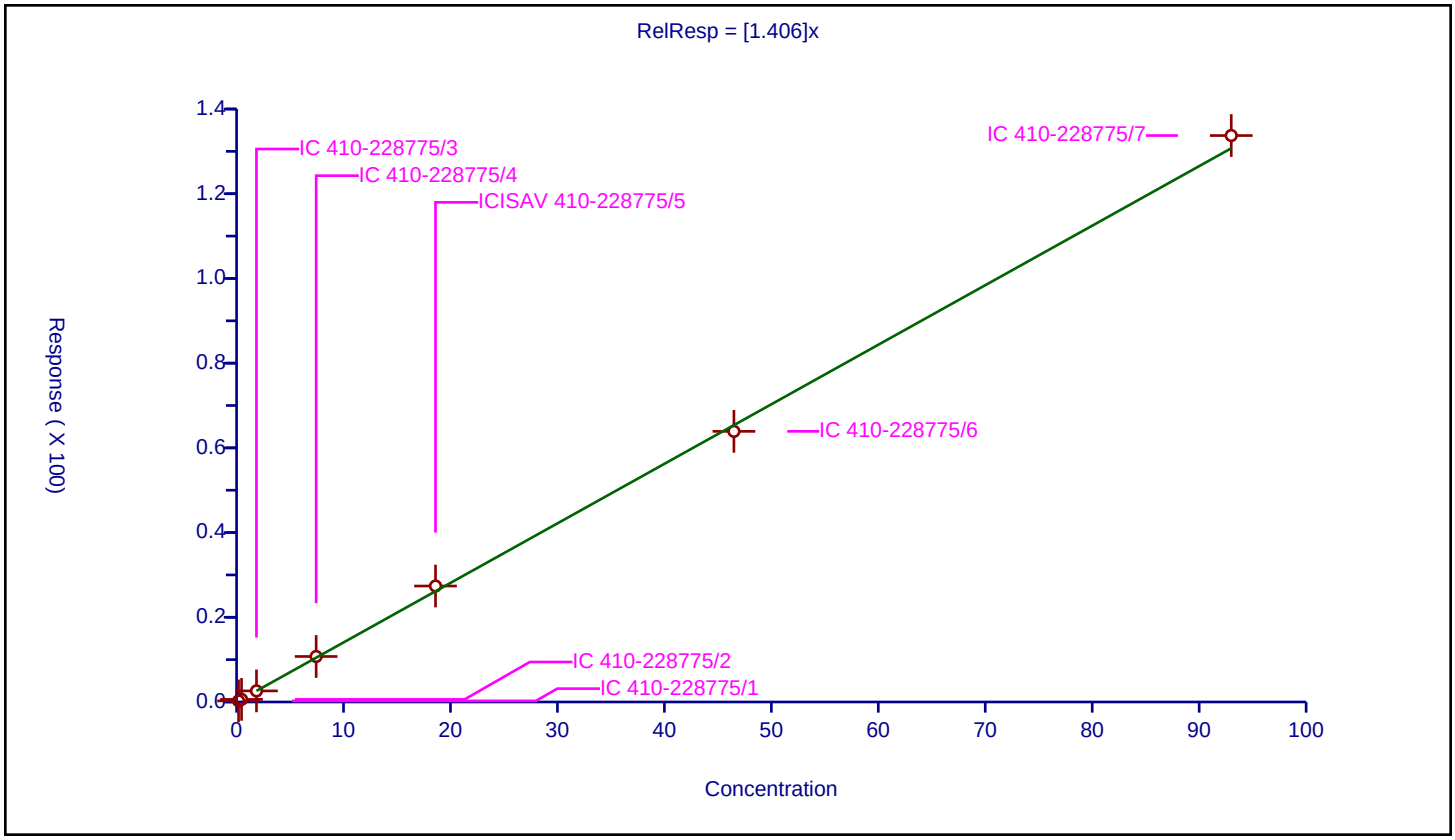
Curve Coefficients

Intercept:	0
Slope:	1.406

Error Coefficients

Standard Error:	33700000
Relative Standard Error:	3.7
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.186	0.258376	9.56	6295318.0	1.389117	Y
2	IC 410-228775/2	0.465	0.612099	9.56	5942811.0	1.316342	Y
3	IC 410-228775/3	1.86	2.615488	9.56	5096452.0	1.406176	Y
4	IC 410-228775/4	7.44	10.743093	9.56	4848413.0	1.443964	Y
5	ICISAV 410-228775/5	18.6	27.380958	9.56	4613122.0	1.472095	Y
6	IC 410-228775/6	46.5	63.894657	9.56	5991956.0	1.374079	Y
7	IC 410-228775/7	93.0	133.73643	9.56	5051930.0	1.438026	Y



Calibration / Perfluorononanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

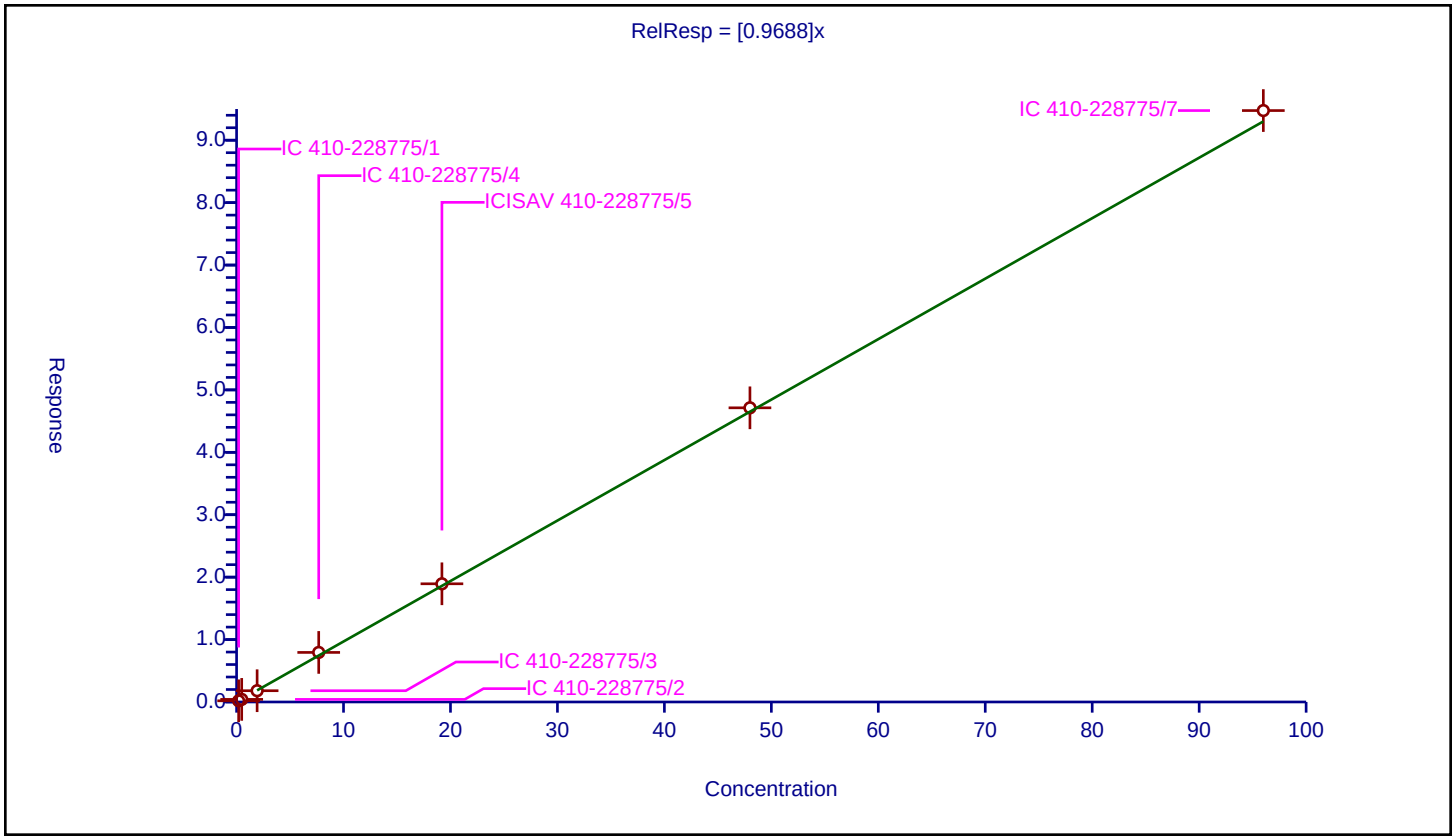
Curve Coefficients

Intercept:	0
Slope:	0.9688

Error Coefficients

Standard Error:	24100000
Relative Standard Error:	5.3
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.192	0.188562	9.56	6295318.0	0.982092	Y
2	IC 410-228775/2	0.48	0.418281	9.56	5942811.0	0.871418	Y
3	IC 410-228775/3	1.92	1.803298	9.56	5096452.0	0.939218	Y
4	IC 410-228775/4	7.68	7.941905	9.56	4848413.0	1.034102	Y
5	ICISAV 410-228775/5	19.2	18.93621	9.56	4613122.0	0.986261	Y
6	IC 410-228775/6	48.0	47.129555	9.56	5991956.0	0.981866	Y
7	IC 410-228775/7	96.0	94.750535	9.56	5051930.0	0.986985	Y



Calibration / Perfluorodecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

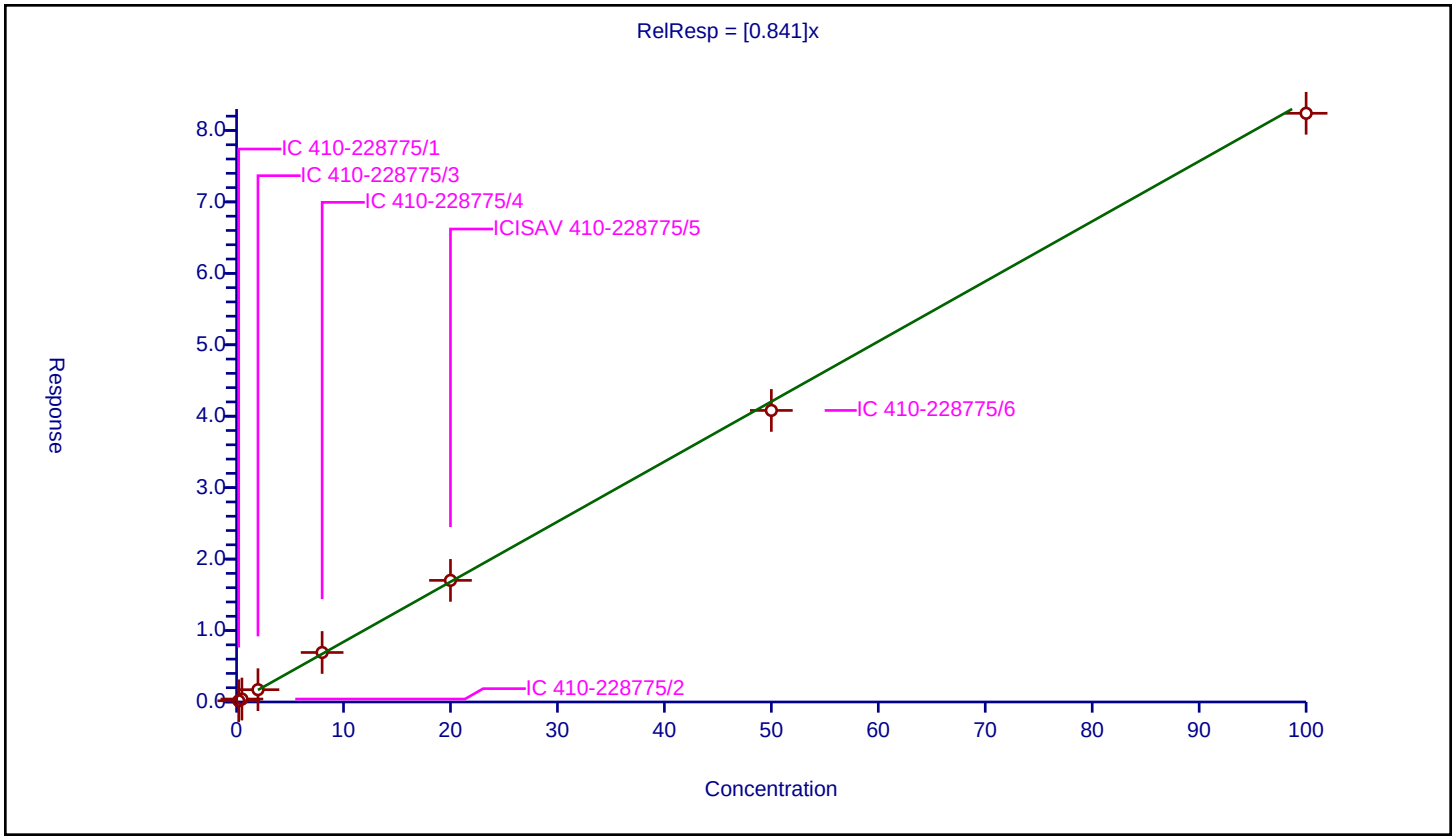
Curve Coefficients

Intercept:	0
Slope:	0.841

Error Coefficients

Standard Error:	23900000
Relative Standard Error:	2.4
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.169261	10.0	8316664.0	0.846307	Y
2	IC 410-228775/2	0.5	0.411172	10.0	7702903.0	0.822345	Y
3	IC 410-228775/3	2.0	1.721285	10.0	6559215.0	0.860643	Y
4	IC 410-228775/4	8.0	6.930396	10.0	6194779.0	0.866299	Y
5	ICISAV 410-228775/5	20.0	17.021649	10.0	5916808.0	0.851082	Y
6	IC 410-228775/6	50.0	40.811457	10.0	7246967.0	0.816229	Y
7	IC 410-228775/7	100.0	82.401396	10.0	5992552.0	0.824014	Y



Calibration / 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

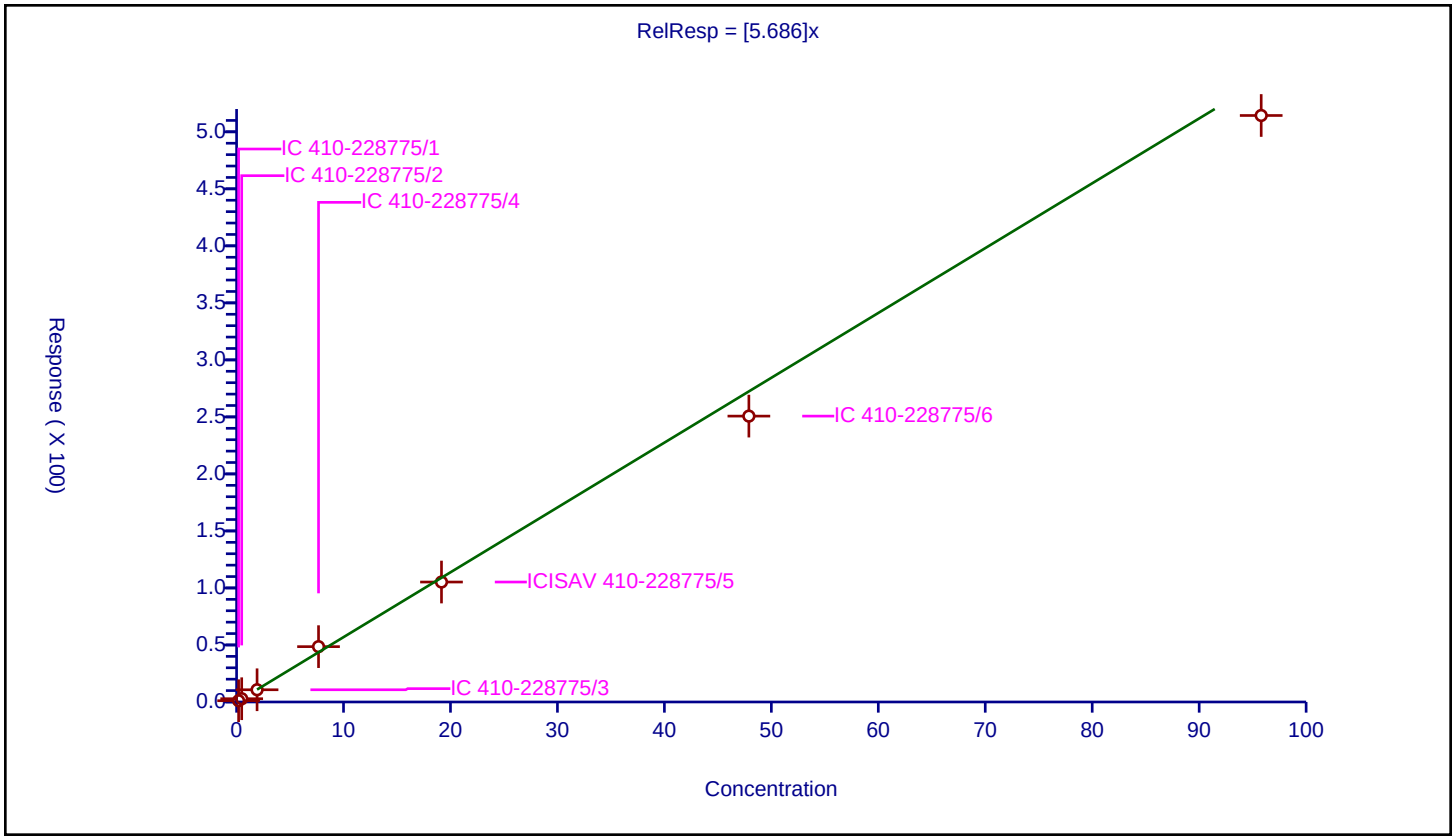
Curve Coefficients

Intercept:	0
Slope:	5.686

Error Coefficients

Standard Error:	4030000
Relative Standard Error:	6.7
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1916	1.112726	9.58	189822.0	5.807546	Y
2	IC 410-228775/2	0.479	2.860544	9.58	178767.0	5.971908	Y
3	IC 410-228775/3	1.916	10.722471	9.58	162449.0	5.596279	Y
4	IC 410-228775/4	7.664	48.526233	9.58	151892.0	6.331711	Y
5	ICISAV 410-228775/5	19.16	105.197926	9.58	157795.0	5.490497	Y
6	IC 410-228775/6	47.9	250.701037	9.58	187772.0	5.233842	Y
7	IC 410-228775/7	95.8	514.322146	9.58	155518.0	5.368707	Y



Calibration / Perfluorooctanesulfonamide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

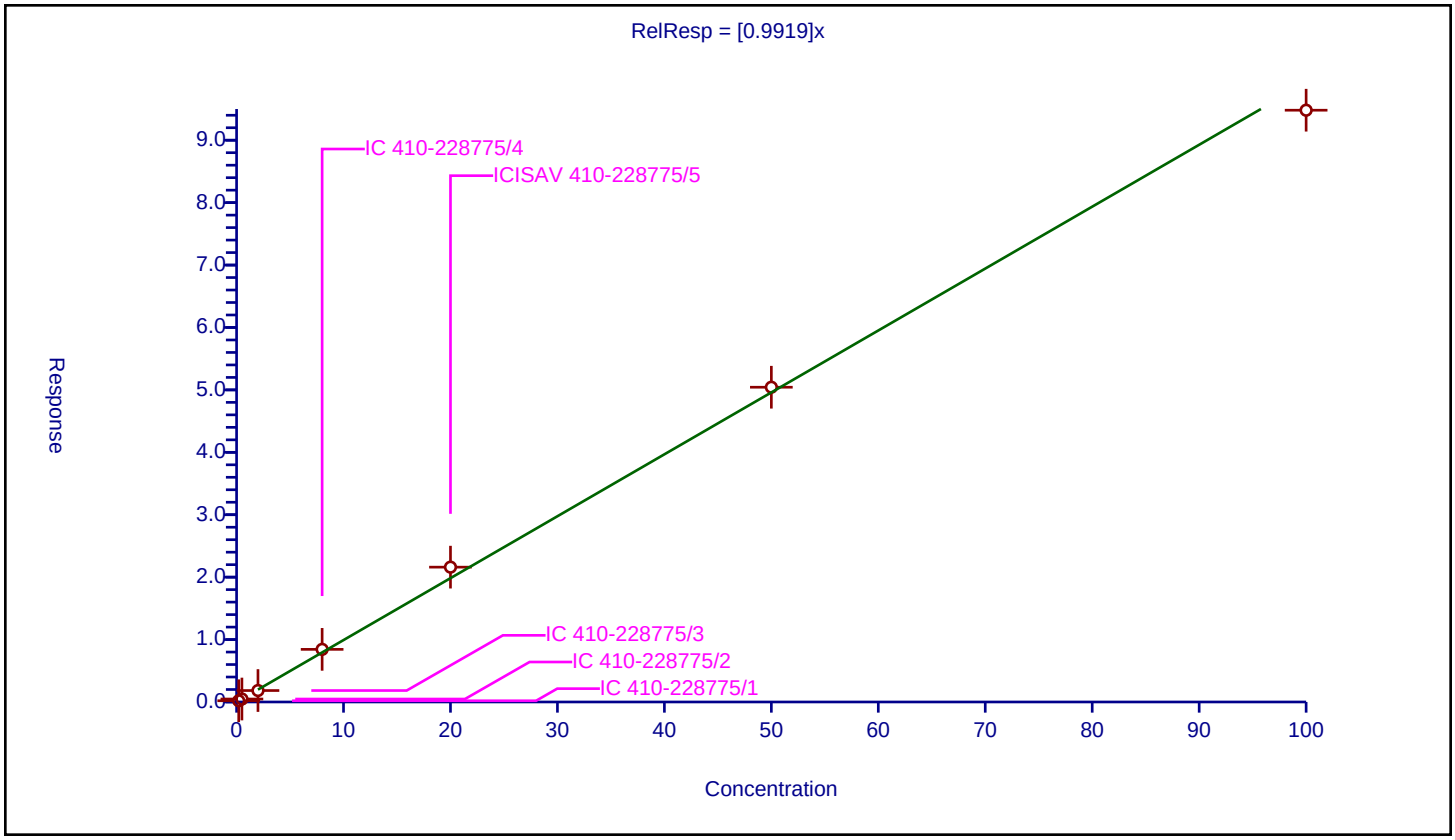
Curve Coefficients

Intercept:	0
Slope:	0.9919

Error Coefficients

Standard Error:	38300000
Relative Standard Error:	6.0
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.197122	10.0	10253441.0	0.985611	Y
2	IC 410-228775/2	0.5	0.475055	10.0	10070283.0	0.95011	Y
3	IC 410-228775/3	2.0	1.83446	10.0	8549950.0	0.91723	Y
4	IC 410-228775/4	8.0	8.430176	10.0	7782530.0	1.053772	Y
5	ICISAV 410-228775/5	20.0	21.601406	10.0	7268255.0	1.08007	Y
6	IC 410-228775/6	50.0	50.426621	10.0	9534597.0	1.008532	Y
7	IC 410-228775/7	100.0	94.808598	10.0	8318238.0	0.948086	Y



Calibration / N-methylperfluorooctanesulfonamidoacetic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

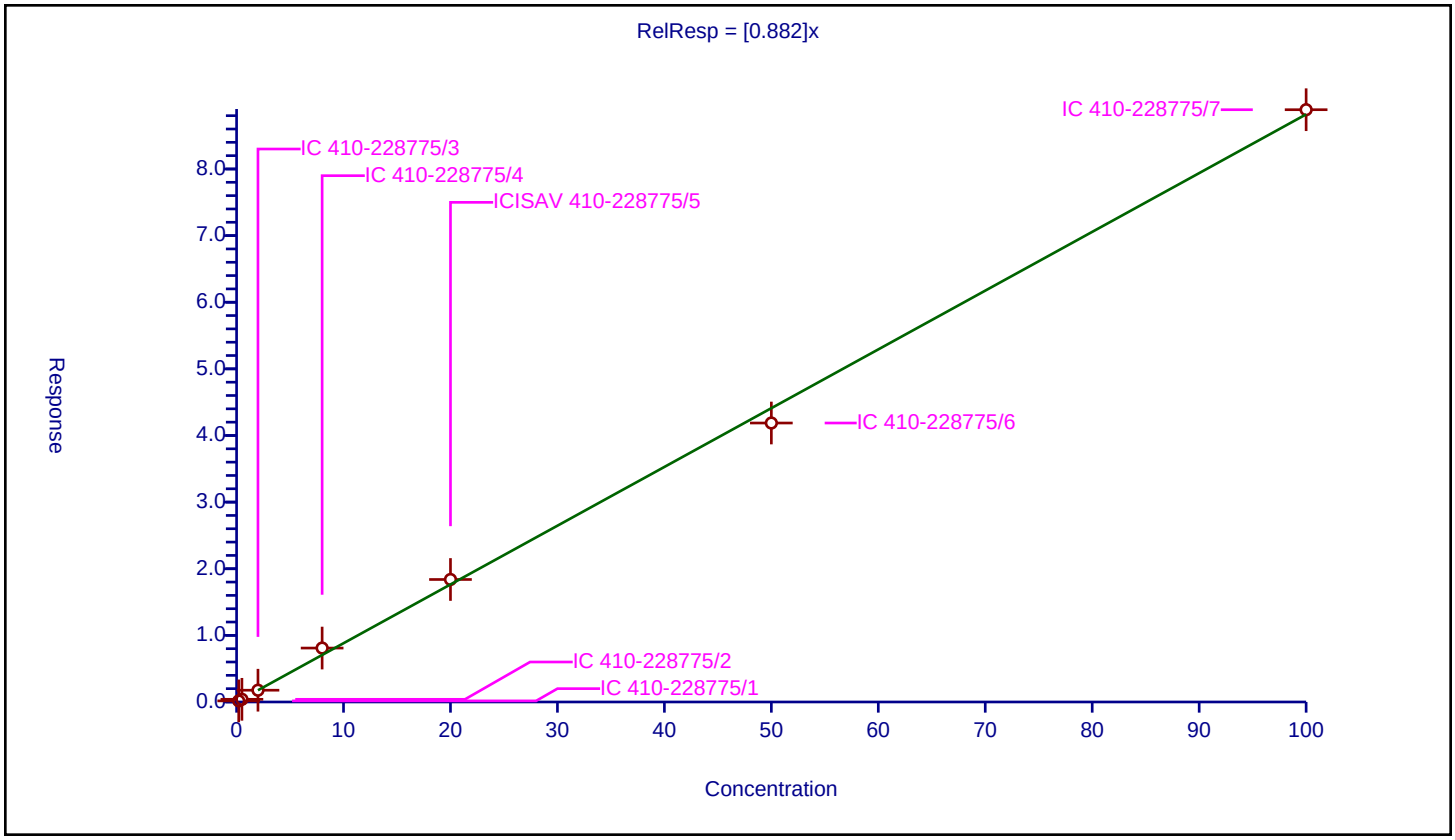
Curve Coefficients

Intercept:	0
Slope:	0.882

Error Coefficients

Standard Error:	7930000
Relative Standard Error:	7.9
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.166294	10.0	2289917.0	0.831471	Y
2	IC 410-228775/2	0.5	0.4005	10.0	2018527.0	0.801	Y
3	IC 410-228775/3	2.0	1.767674	10.0	1778048.0	0.883837	Y
4	IC 410-228775/4	8.0	8.096293	10.0	1610164.0	1.012037	Y
5	ICISAV 410-228775/5	20.0	18.384153	10.0	1645094.0	0.919208	Y
6	IC 410-228775/6	50.0	41.869889	10.0	2230437.0	0.837398	Y
7	IC 410-228775/7	100.0	88.896841	10.0	1878705.0	0.888968	Y



Calibration / Perfluorodecanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

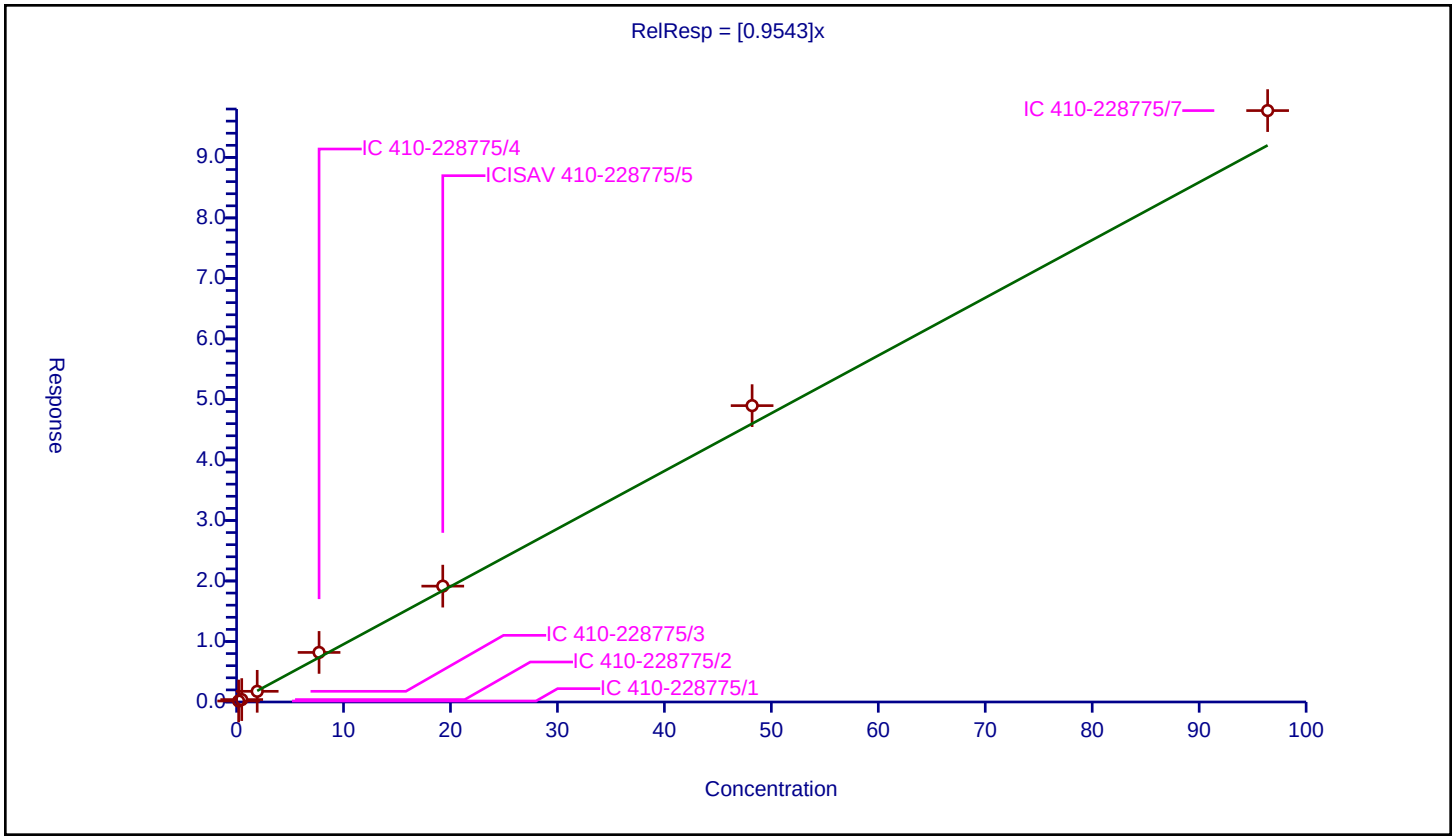
Curve Coefficients

Intercept:	0
Slope:	0.9543

Error Coefficients

Standard Error:	24900000
Relative Standard Error:	9.4
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1928	0.164855	9.56	6295318.0	0.855057	Y
2	IC 410-228775/2	0.482	0.397624	9.56	5942811.0	0.824945	Y
3	IC 410-228775/3	1.928	1.763675	9.56	5096452.0	0.914769	Y
4	IC 410-228775/4	7.712	8.192522	9.56	4848413.0	1.062308	Y
5	ICISAV 410-228775/5	19.28	19.148741	9.56	4613122.0	0.993192	Y
6	IC 410-228775/6	48.2	48.978414	9.56	5991956.0	1.01615	Y
7	IC 410-228775/7	96.4	97.740544	9.56	5051930.0	1.013906	Y



Calibration / Perfluoroundecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

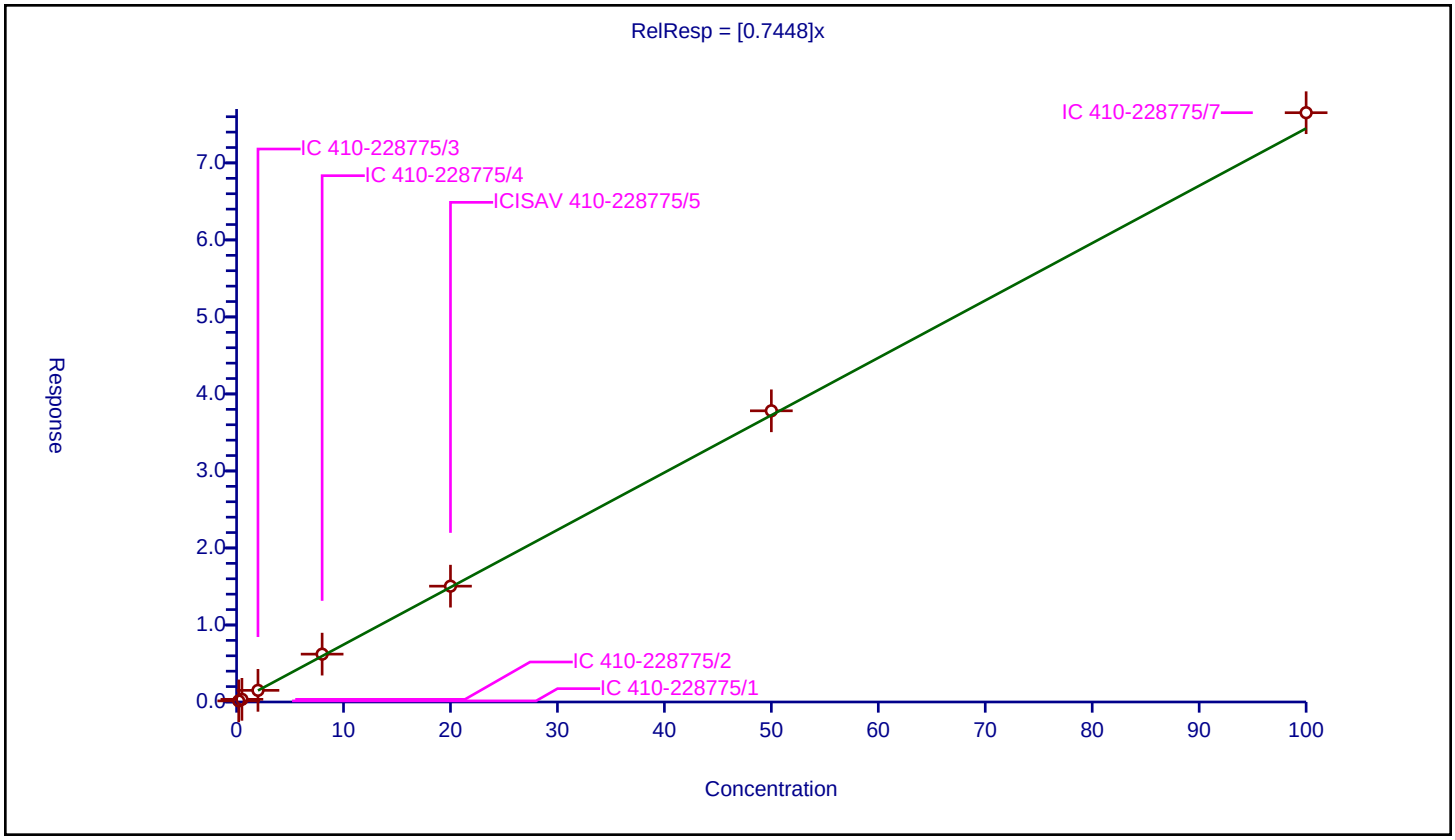
Curve Coefficients

Intercept:	0
Slope:	0.7448

Error Coefficients

Standard Error:	23500000
Relative Standard Error:	4.0
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.143486	10.0	8422770.0	0.71743	Y
2	IC 410-228775/2	0.5	0.345465	10.0	8339694.0	0.690929	Y
3	IC 410-228775/3	2.0	1.510602	10.0	7206854.0	0.755301	Y
4	IC 410-228775/4	8.0	6.213039	10.0	6658493.0	0.77663	Y
5	ICISAV 410-228775/5	20.0	15.03888	10.0	6176500.0	0.751944	Y
6	IC 410-228775/6	50.0	37.811475	10.0	7449660.0	0.756229	Y
7	IC 410-228775/7	100.0	76.523459	10.0	6407541.0	0.765235	Y



Calibration / N-ethylperfluorooctanesulfonamidoacetic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

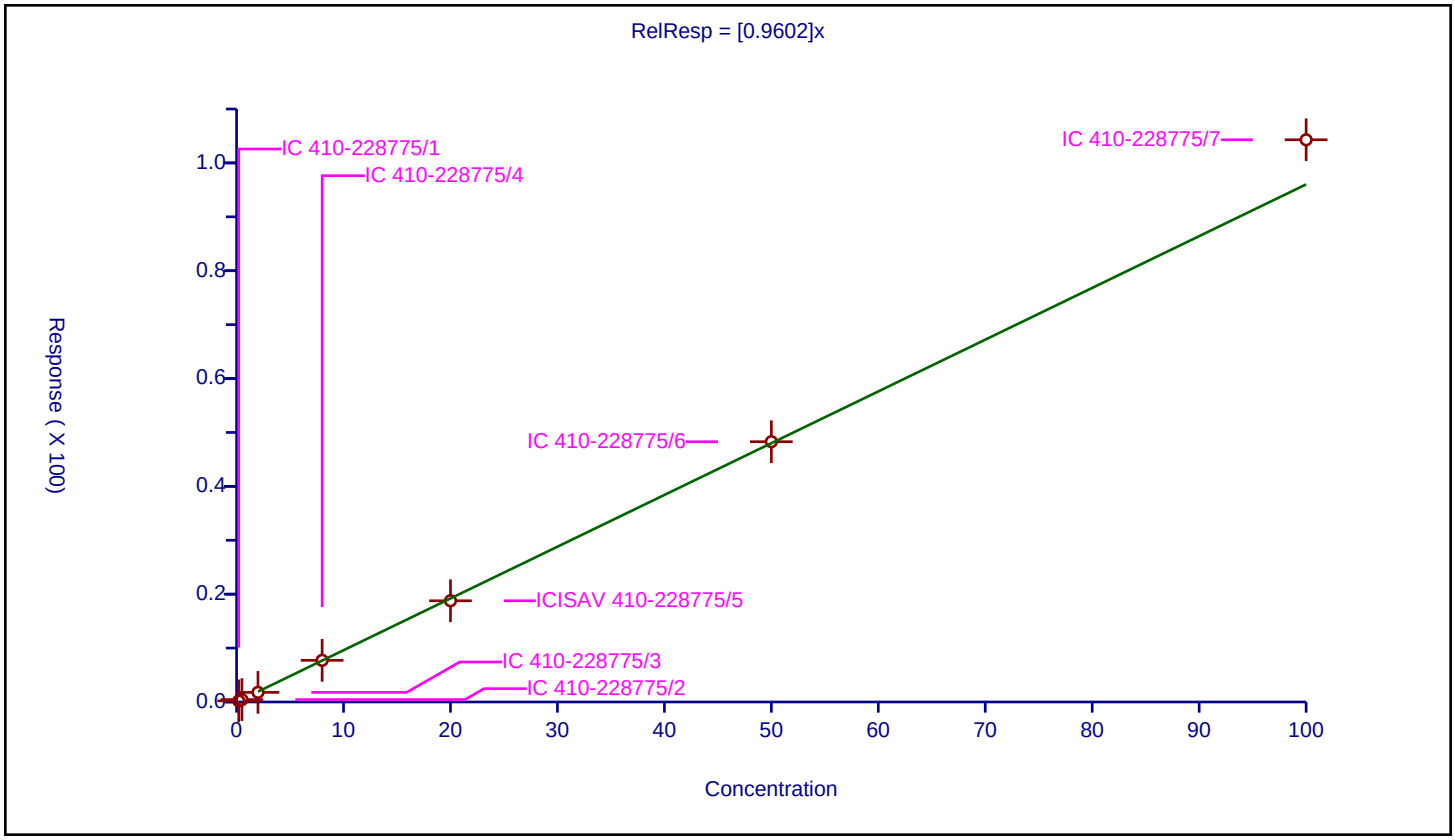
Curve Coefficients

Intercept:	0
Slope:	0.9602

Error Coefficients

Standard Error:	5820000
Relative Standard Error:	5.9
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.203576	10.0	1607558.0	1.017879	Y
2	IC 410-228775/2	0.5	0.448836	10.0	1539115.0	0.897672	Y
3	IC 410-228775/3	2.0	1.785466	10.0	1394583.0	0.892733	Y
4	IC 410-228775/4	8.0	7.724842	10.0	1258594.0	0.965605	Y
5	ICISAV 410-228775/5	20.0	18.7735	10.0	1187901.0	0.938675	Y
6	IC 410-228775/6	50.0	48.283909	10.0	1457394.0	0.965678	Y
7	IC 410-228775/7	100.0	104.293785	10.0	1166011.0	1.042938	Y



Calibration / 10:2 FTUCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

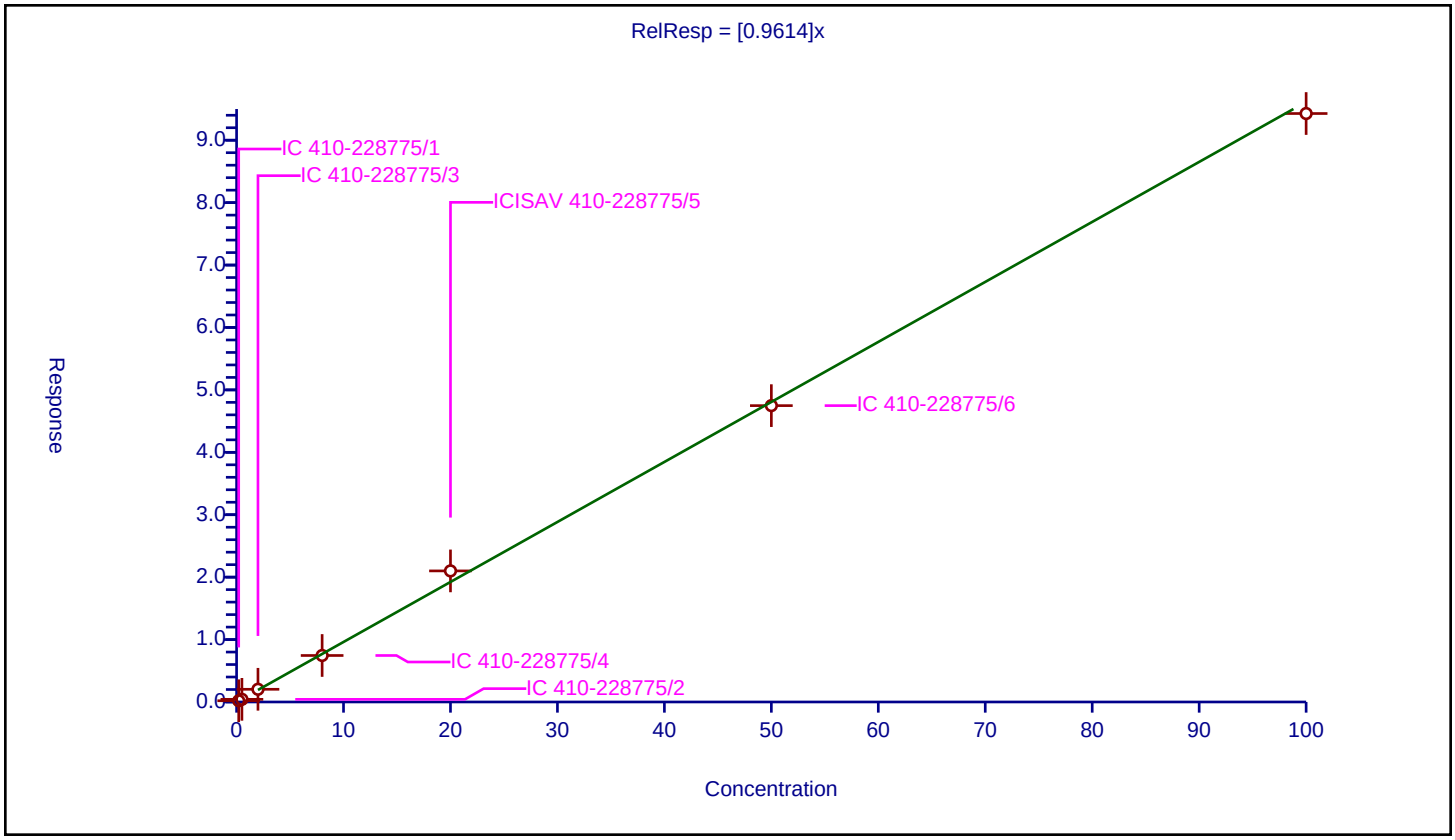
Curve Coefficients

Intercept:	0
Slope:	0.9614

Error Coefficients

Standard Error:	15400000
Relative Standard Error:	6.7
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.196786	10.0	4478376.0	0.983928	Y
2	IC 410-228775/2	0.5	0.426723	10.0	4334198.0	0.853445	Y
3	IC 410-228775/3	2.0	2.03762	10.0	3691891.0	1.01881	Y
4	IC 410-228775/4	8.0	7.448944	10.0	3788851.0	0.931118	Y
5	ICISAV 410-228775/5	20.0	21.001404	10.0	3153841.0	1.05007	Y
6	IC 410-228775/6	50.0	47.480896	10.0	4121902.0	0.949618	Y
7	IC 410-228775/7	100.0	94.277587	10.0	3340636.0	0.942776	Y



Calibration / 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

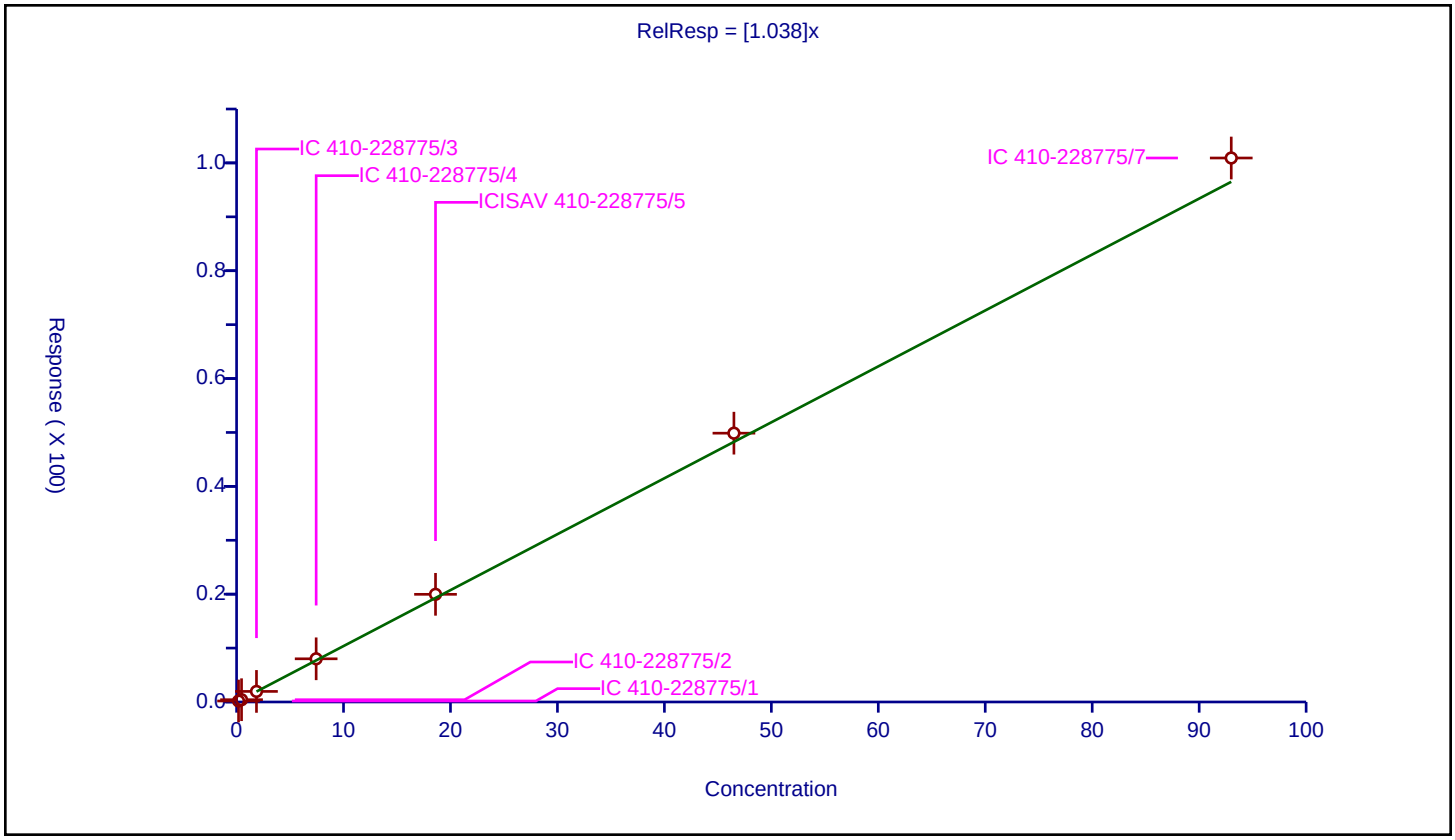
Curve Coefficients

Intercept:	0
Slope:	1.038

Error Coefficients

Standard Error:	25600000
Relative Standard Error:	6.3
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.186	0.184641	9.56	6295318.0	0.992692	Y
2	IC 410-228775/2	0.465	0.422418	9.56	5942811.0	0.908426	Y
3	IC 410-228775/3	1.86	1.960178	9.56	5096452.0	1.053859	Y
4	IC 410-228775/4	7.44	8.011723	9.56	4848413.0	1.076845	Y
5	ICISAV 410-228775/5	18.6	19.971961	9.56	4613122.0	1.073761	Y
6	IC 410-228775/6	46.5	49.86419	9.56	5991956.0	1.072348	Y
7	IC 410-228775/7	93.0	100.914743	9.56	5051930.0	1.085105	Y



Calibration / 10:2 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

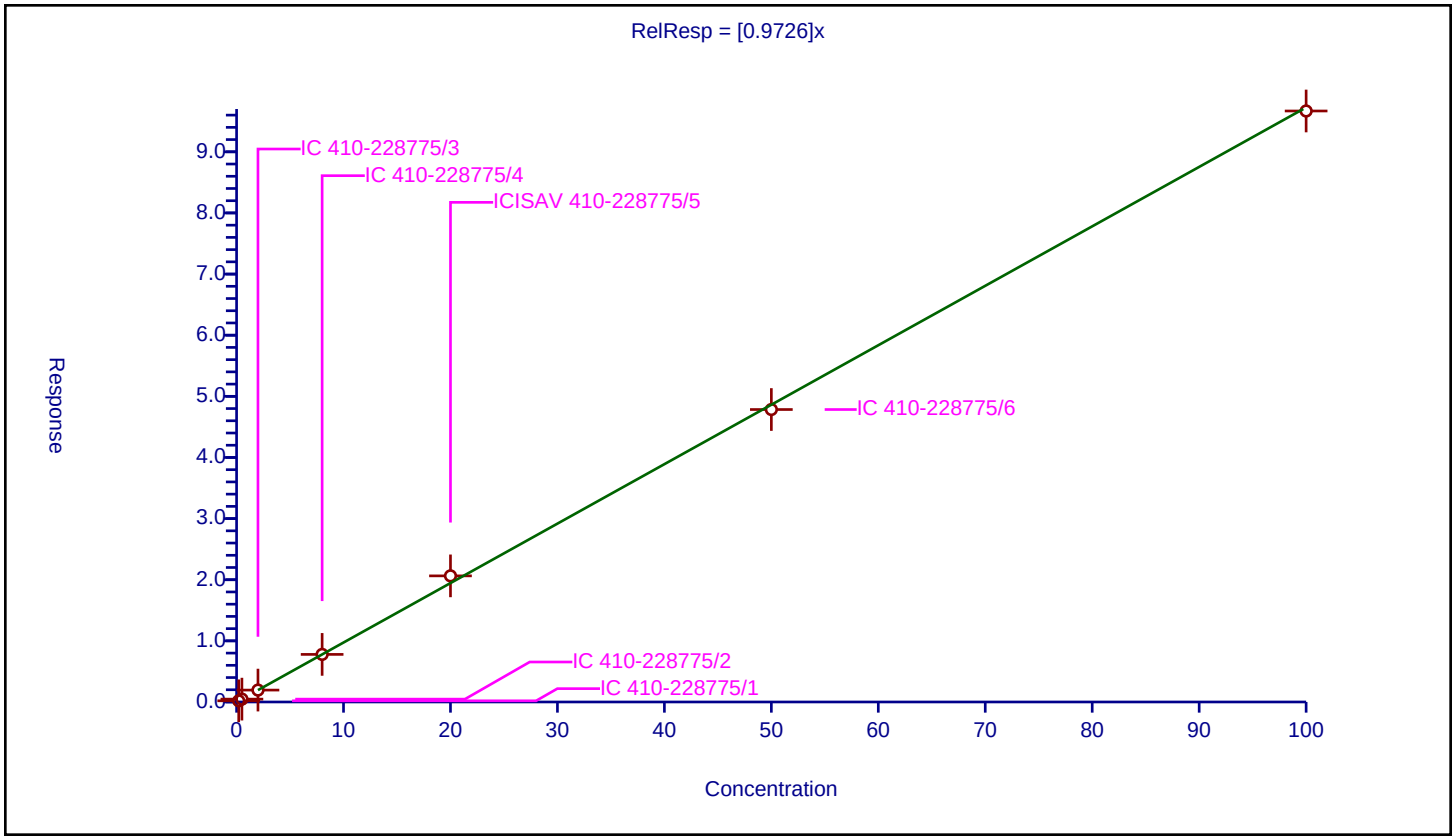
Curve Coefficients

Intercept:	0
Slope:	0.9726

Error Coefficients

Standard Error:	1530000
Relative Standard Error:	2.9
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.193009	10.0	424073.0	0.965046	Y
2	IC 410-228775/2	0.5	0.470624	10.0	404633.0	0.941248	Y
3	IC 410-228775/3	2.0	1.946516	10.0	327087.0	0.973258	Y
4	IC 410-228775/4	8.0	7.786474	10.0	339359.0	0.973309	Y
5	ICISAV 410-228775/5	20.0	20.629647	10.0	282174.0	1.031482	Y
6	IC 410-228775/6	50.0	47.843326	10.0	403399.0	0.956867	Y
7	IC 410-228775/7	100.0	96.675037	10.0	326948.0	0.96675	Y



Calibration / Perfluorododecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

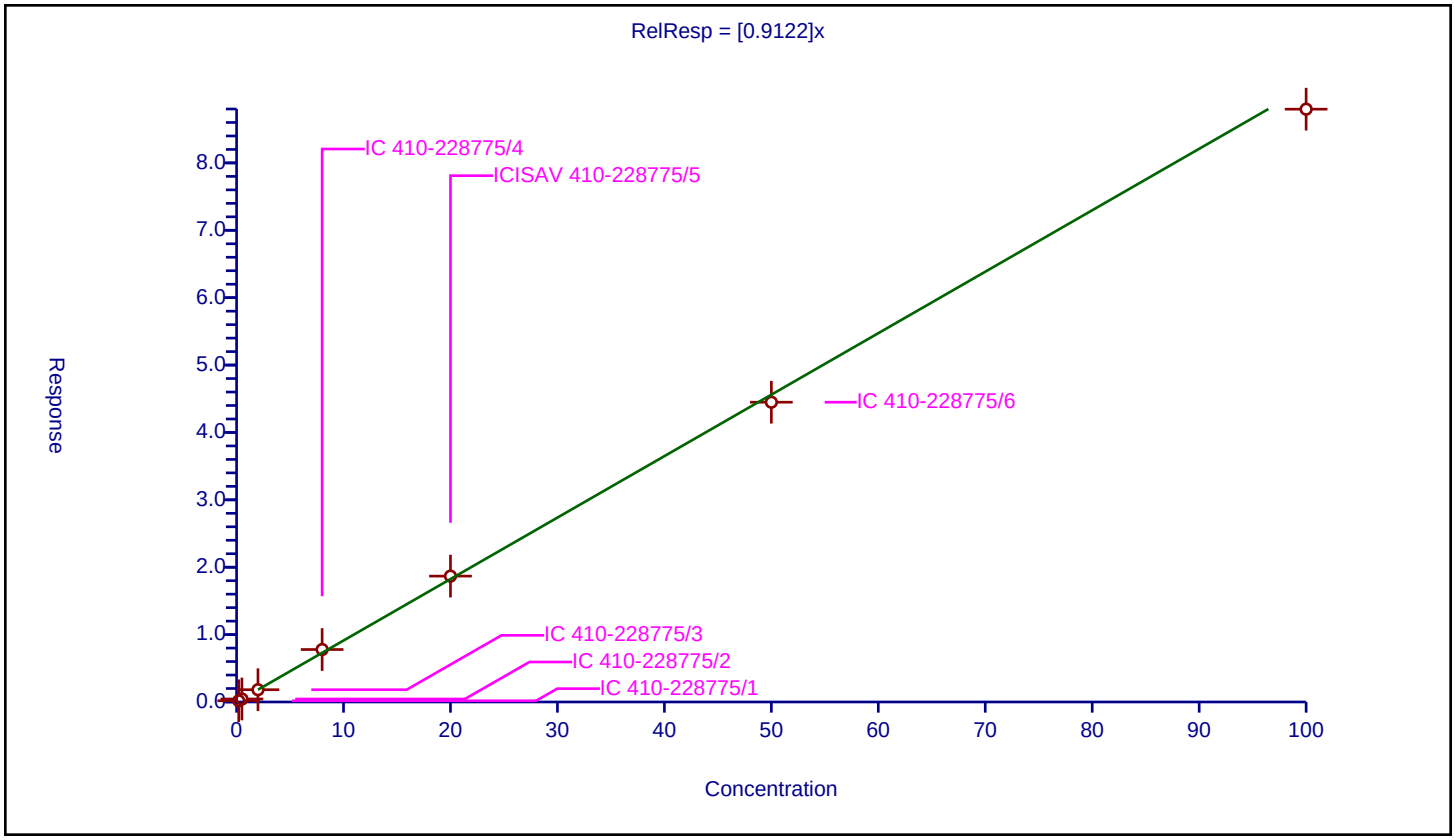
Curve Coefficients

Intercept:	0
Slope:	0.9122

Error Coefficients

Standard Error:	22000000
Relative Standard Error:	3.6
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.181478	10.0	6452528.0	0.907389	Y
2	IC 410-228775/2	0.5	0.445	10.0	5927934.0	0.89	Y
3	IC 410-228775/3	2.0	1.821548	10.0	5248344.0	0.910774	Y
4	IC 410-228775/4	8.0	7.78737	10.0	4886429.0	0.973421	Y
5	ICISAV 410-228775/5	20.0	18.682437	10.0	4767188.0	0.934122	Y
6	IC 410-228775/6	50.0	44.488923	10.0	6094459.0	0.889778	Y
7	IC 410-228775/7	100.0	87.975718	10.0	5170046.0	0.879757	Y



Calibration / 1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

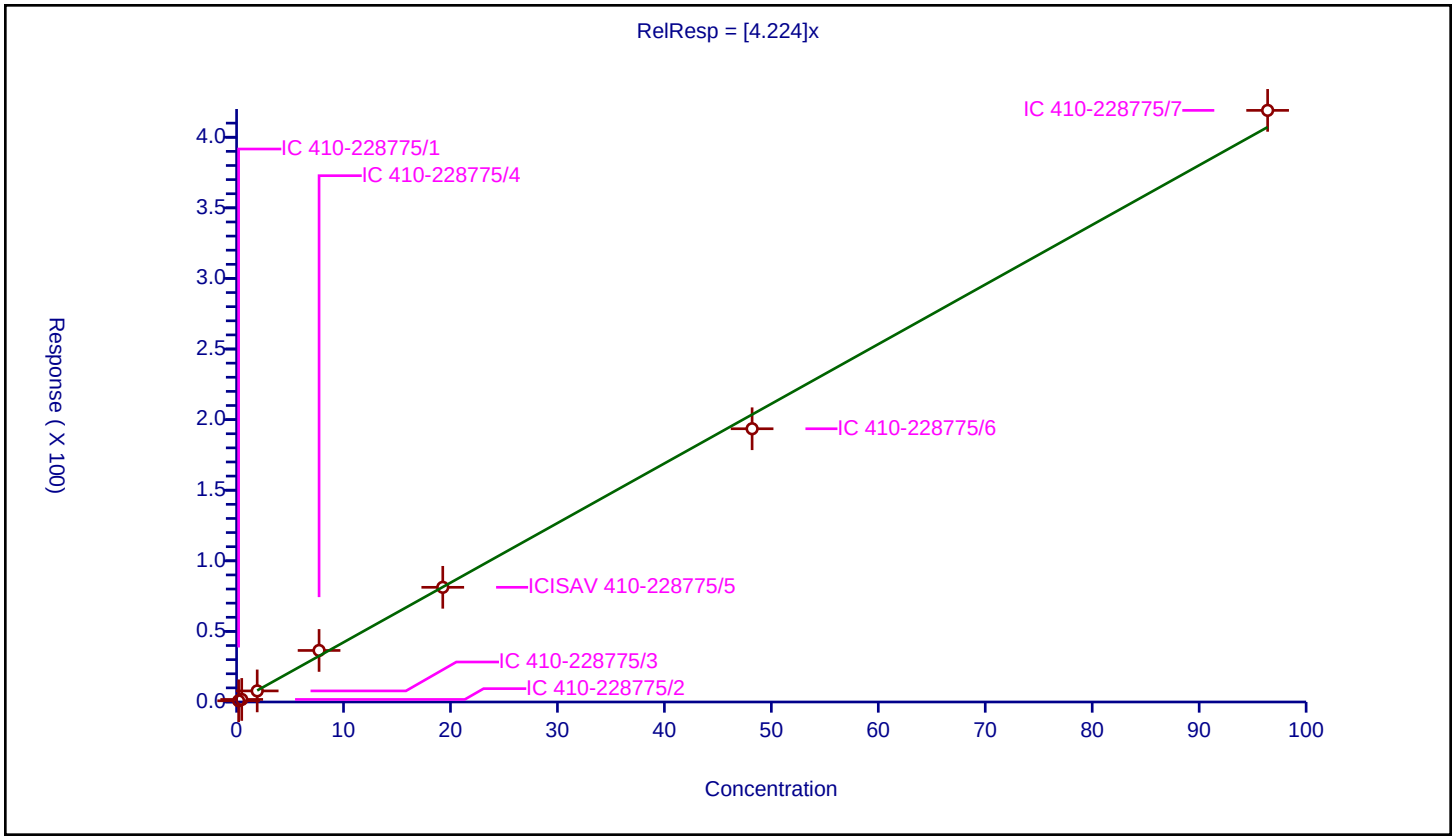
Curve Coefficients

Intercept:	0
Slope:	4.224

Error Coefficients

Standard Error:	3240000
Relative Standard Error:	7.5
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1928	0.854631	9.58	189822.0	4.432732	Y
2	IC 410-228775/2	0.482	1.811694	9.58	178767.0	3.758701	Y
3	IC 410-228775/3	1.928	7.844385	9.58	162449.0	4.068664	Y
4	IC 410-228775/4	7.712	36.503678	9.58	151892.0	4.733361	Y
5	ICISAV 410-228775/5	19.28	81.219604	9.58	157795.0	4.212635	Y
6	IC 410-228775/6	48.2	193.534398	9.58	187772.0	4.015236	Y
7	IC 410-228775/7	96.4	419.041069	9.58	155518.0	4.346899	Y



Calibration / 2-(N-methylperfluoro-1-octanesulfonamido) ethanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

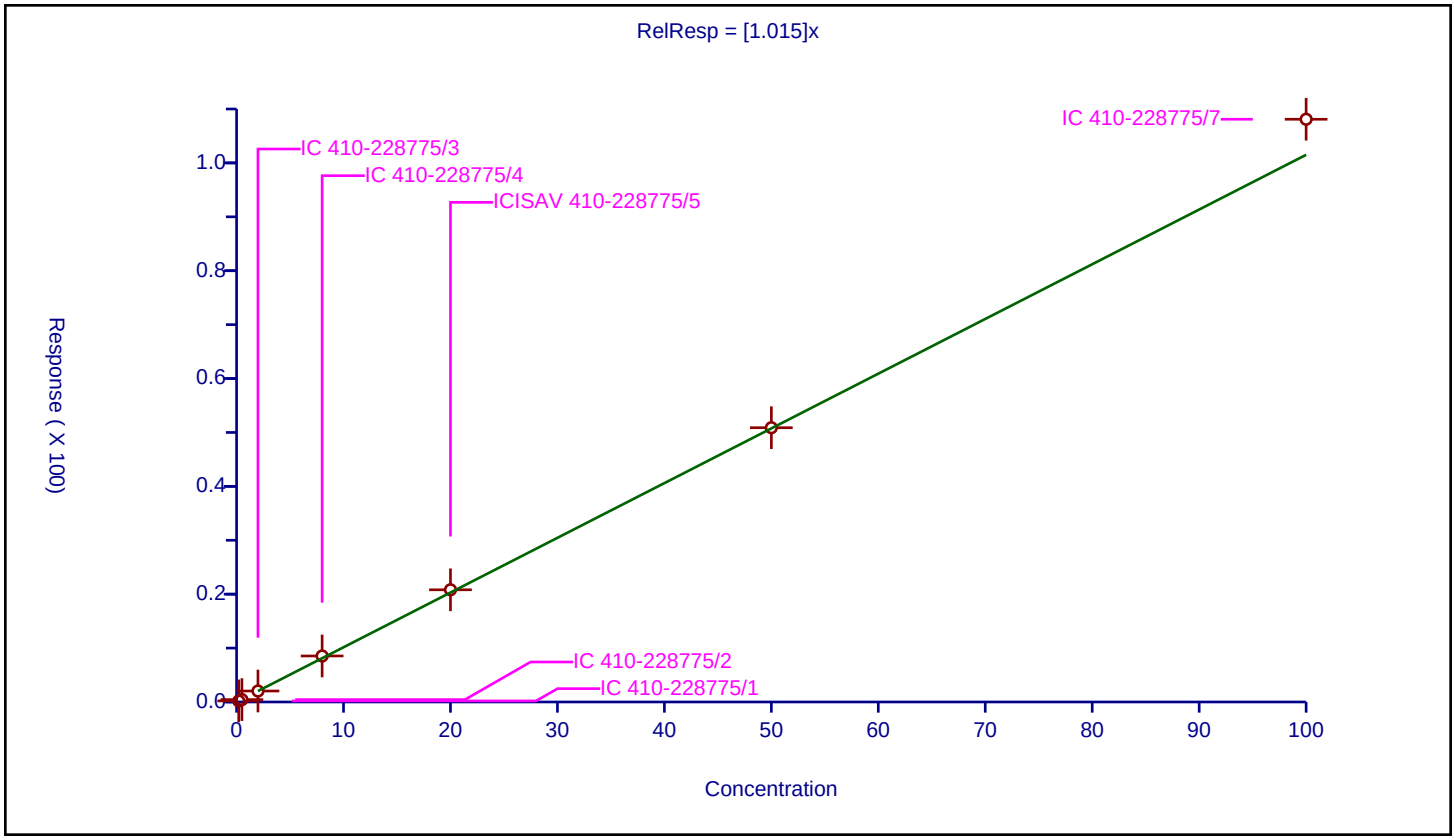
Curve Coefficients

Intercept:	0
Slope:	1.015

Error Coefficients

Standard Error:	6910000
Relative Standard Error:	6.3
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.19819	10.0	1676975.0	0.990951	Y
2	IC 410-228775/2	0.5	0.444544	10.0	1627285.0	0.889088	Y
3	IC 410-228775/3	2.0	2.03794	10.0	1293777.0	1.01897	Y
4	IC 410-228775/4	8.0	8.535321	10.0	1277092.0	1.066915	Y
5	ICISAV 410-228775/5	20.0	20.811968	10.0	1229507.0	1.040598	Y
6	IC 410-228775/6	50.0	50.879438	10.0	1599066.0	1.017589	Y
7	IC 410-228775/7	100.0	108.100772	10.0	1347295.0	1.081008	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

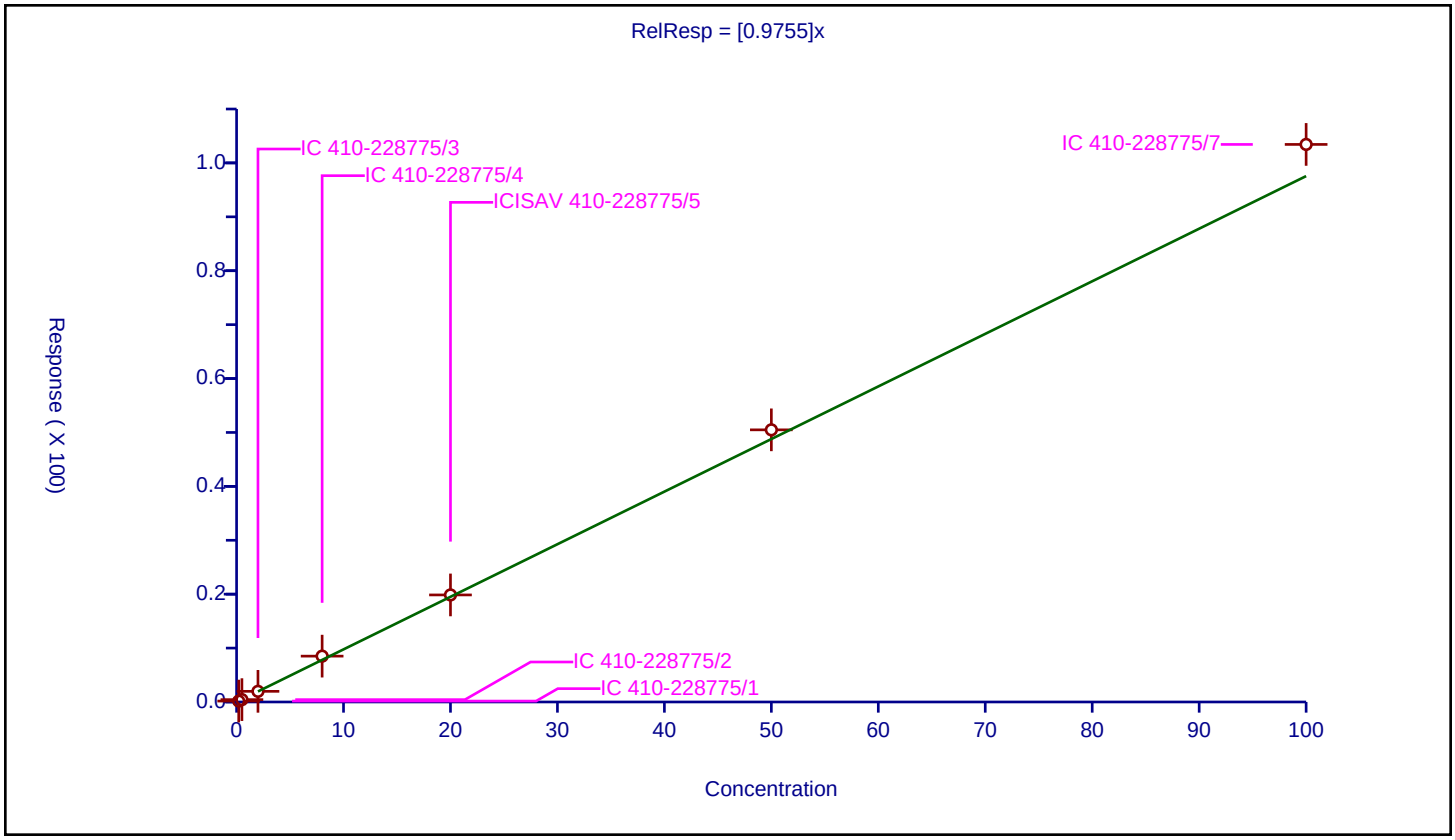
Curve Coefficients

Intercept:	0
Slope:	0.9755

Error Coefficients

Standard Error:	4440000
Relative Standard Error:	7.8
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.172695	10.0	1044098.0	0.863473	Y
2	IC 410-228775/2	0.5	0.438135	10.0	986591.0	0.87627	Y
3	IC 410-228775/3	2.0	1.977858	10.0	802090.0	0.988929	Y
4	IC 410-228775/4	8.0	8.50425	10.0	801384.0	1.063031	Y
5	ICISAV 410-228775/5	20.0	19.861049	10.0	776244.0	0.993052	Y
6	IC 410-228775/6	50.0	50.485108	10.0	1076543.0	1.009702	Y
7	IC 410-228775/7	100.0	103.42822	10.0	894960.0	1.034282	Y



Calibration / Perfluorododecanesulfonic acid (PFDoS)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

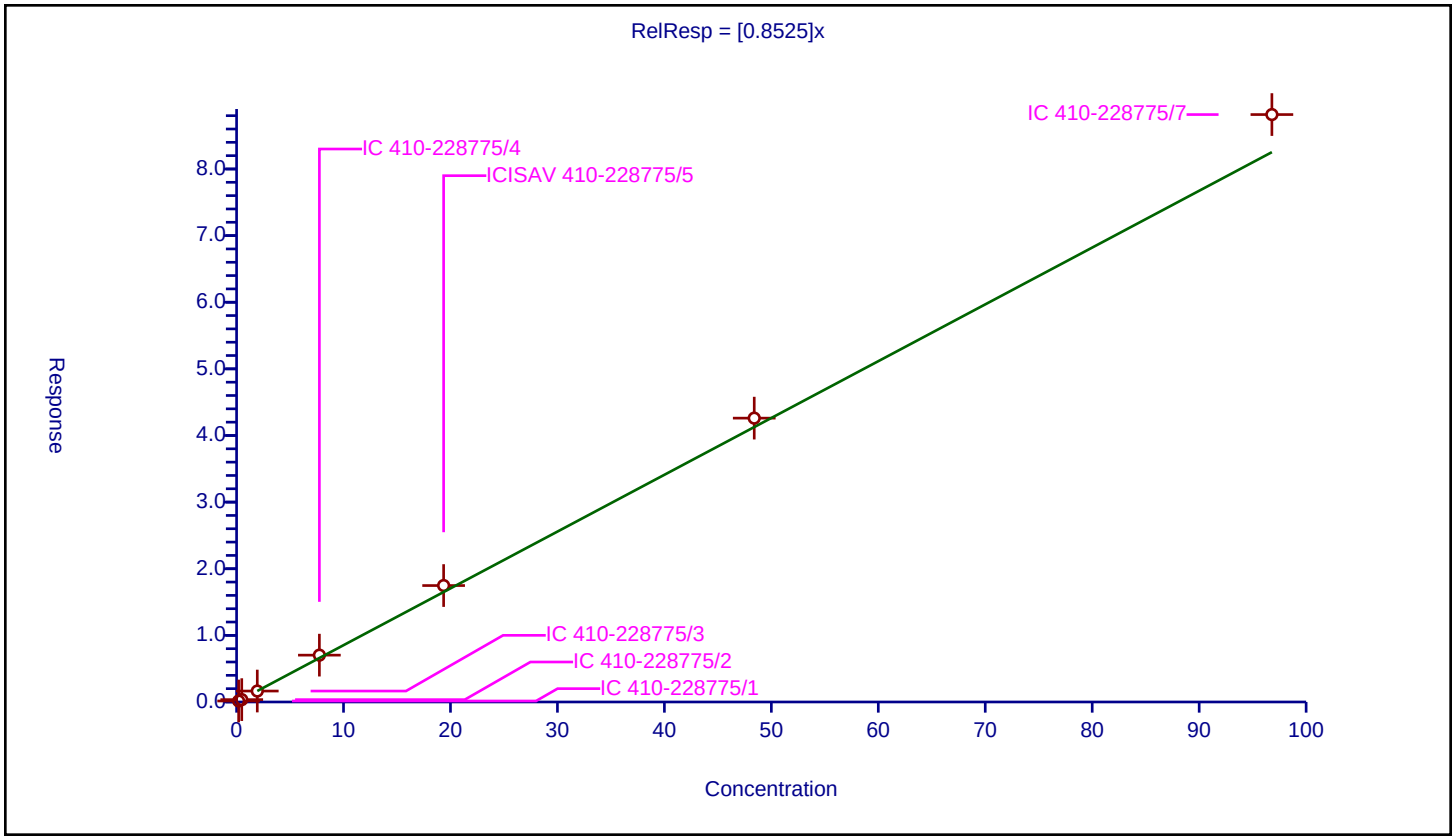
Curve Coefficients

Intercept:	0
Slope:	0.8525

Error Coefficients

Standard Error:	22200000
Relative Standard Error:	8.1
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.1936	0.151857	9.56	6295318.0	0.784387	Y
2	IC 410-228775/2	0.484	0.354441	9.56	5942811.0	0.732315	Y
3	IC 410-228775/3	1.936	1.643957	9.56	5096452.0	0.849151	Y
4	IC 410-228775/4	7.744	7.031753	9.56	4848413.0	0.908026	Y
5	ICISAV 410-228775/5	19.36	17.477313	9.56	4613122.0	0.902754	Y
6	IC 410-228775/6	48.4	42.602875	9.56	5991956.0	0.880225	Y
7	IC 410-228775/7	96.8	88.167514	9.56	5051930.0	0.910821	Y



Calibration / 2-(N-ethylperfluoro-1-octanesulfonamido) ethanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

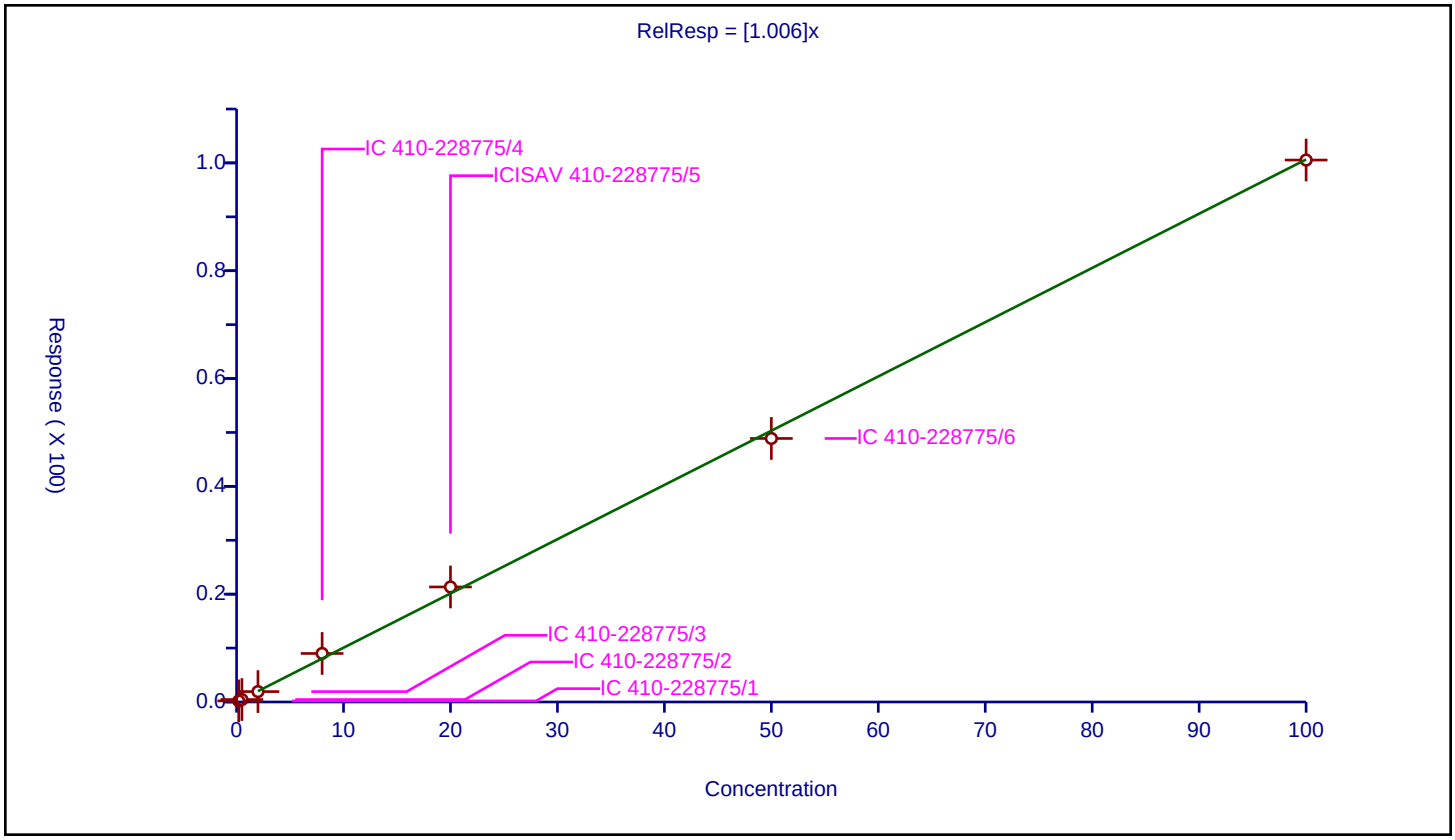
Curve Coefficients

Intercept:	0
Slope:	1.006

Error Coefficients

Standard Error:	7190000
Relative Standard Error:	7.2
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.200808	10.0	1965957.0	1.00404	Y
2	IC 410-228775/2	0.5	0.450905	10.0	1860126.0	0.90181	Y
3	IC 410-228775/3	2.0	1.928411	10.0	1573954.0	0.964205	Y
4	IC 410-228775/4	8.0	9.000885	10.0	1406294.0	1.125111	Y
5	ICISAV 410-228775/5	20.0	21.338694	10.0	1333441.0	1.066935	Y
6	IC 410-228775/6	50.0	48.88489	10.0	1791186.0	0.977698	Y
7	IC 410-228775/7	100.0	100.532078	10.0	1488823.0	1.005321	Y



Calibration / N-ethylperfluoro-1-octanesulfonamide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

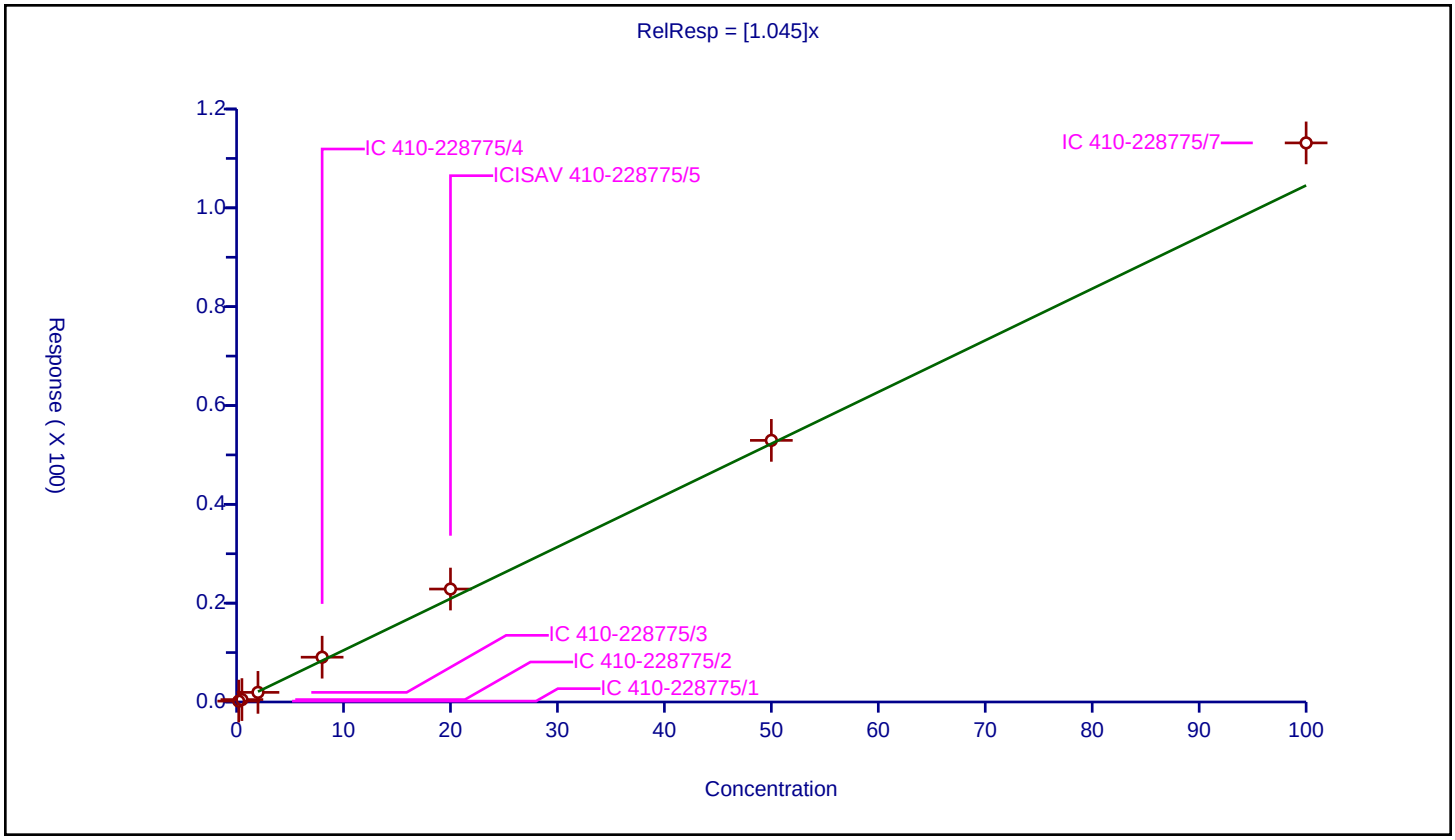
Curve Coefficients

Intercept:	0
Slope:	1.045

Error Coefficients

Standard Error:	4220000
Relative Standard Error:	9.2
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.180077	10.0	1012012.0	0.900385	Y
2	IC 410-228775/2	0.5	0.489977	10.0	921737.0	0.979954	Y
3	IC 410-228775/3	2.0	1.943301	10.0	811120.0	0.97165	Y
4	IC 410-228775/4	8.0	9.063018	10.0	748830.0	1.132877	Y
5	ICISAV 410-228775/5	20.0	22.855954	10.0	717676.0	1.142798	Y
6	IC 410-228775/6	50.0	52.940385	10.0	953933.0	1.058808	Y
7	IC 410-228775/7	100.0	113.142039	10.0	781448.0	1.13142	Y



Calibration / Perfluorotridecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

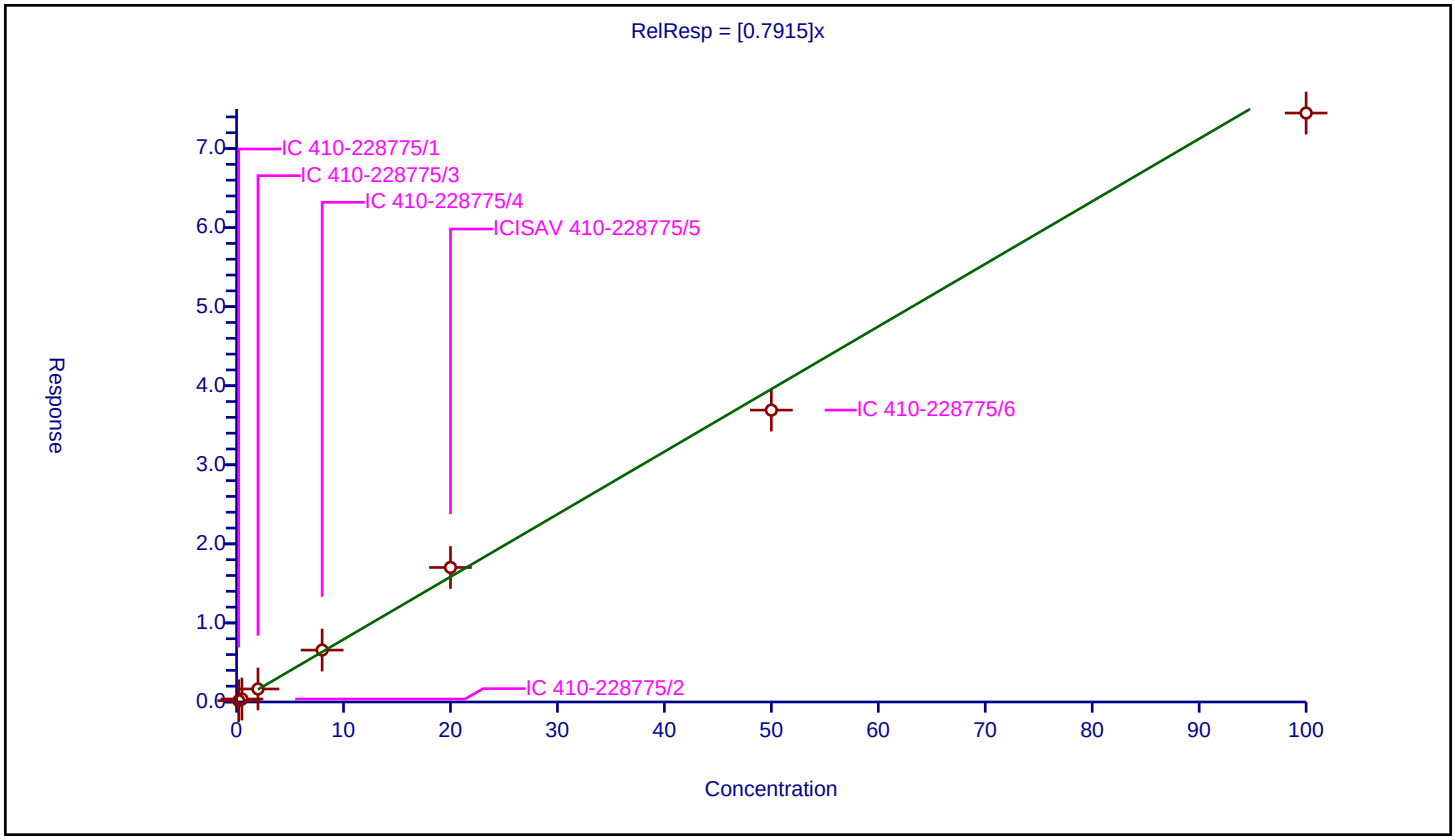
Curve Coefficients

Intercept:	0
Slope:	0.7915

Error Coefficients

Standard Error:	18600000
Relative Standard Error:	5.6
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.161558	10.0	6452528.0	0.807792	Y
2	IC 410-228775/2	0.5	0.377555	10.0	5927934.0	0.75511	Y
3	IC 410-228775/3	2.0	1.646315	10.0	5248344.0	0.823158	Y
4	IC 410-228775/4	8.0	6.563824	10.0	4886429.0	0.820478	Y
5	ICISAV 410-228775/5	20.0	17.013447	10.0	4767188.0	0.850672	Y
6	IC 410-228775/6	50.0	36.918466	10.0	6094459.0	0.738369	Y
7	IC 410-228775/7	100.0	74.489858	10.0	5170046.0	0.744899	Y



Calibration / Perfluoro(2,5,8-trimethyl-3,6,9-trioxadodecan)amide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

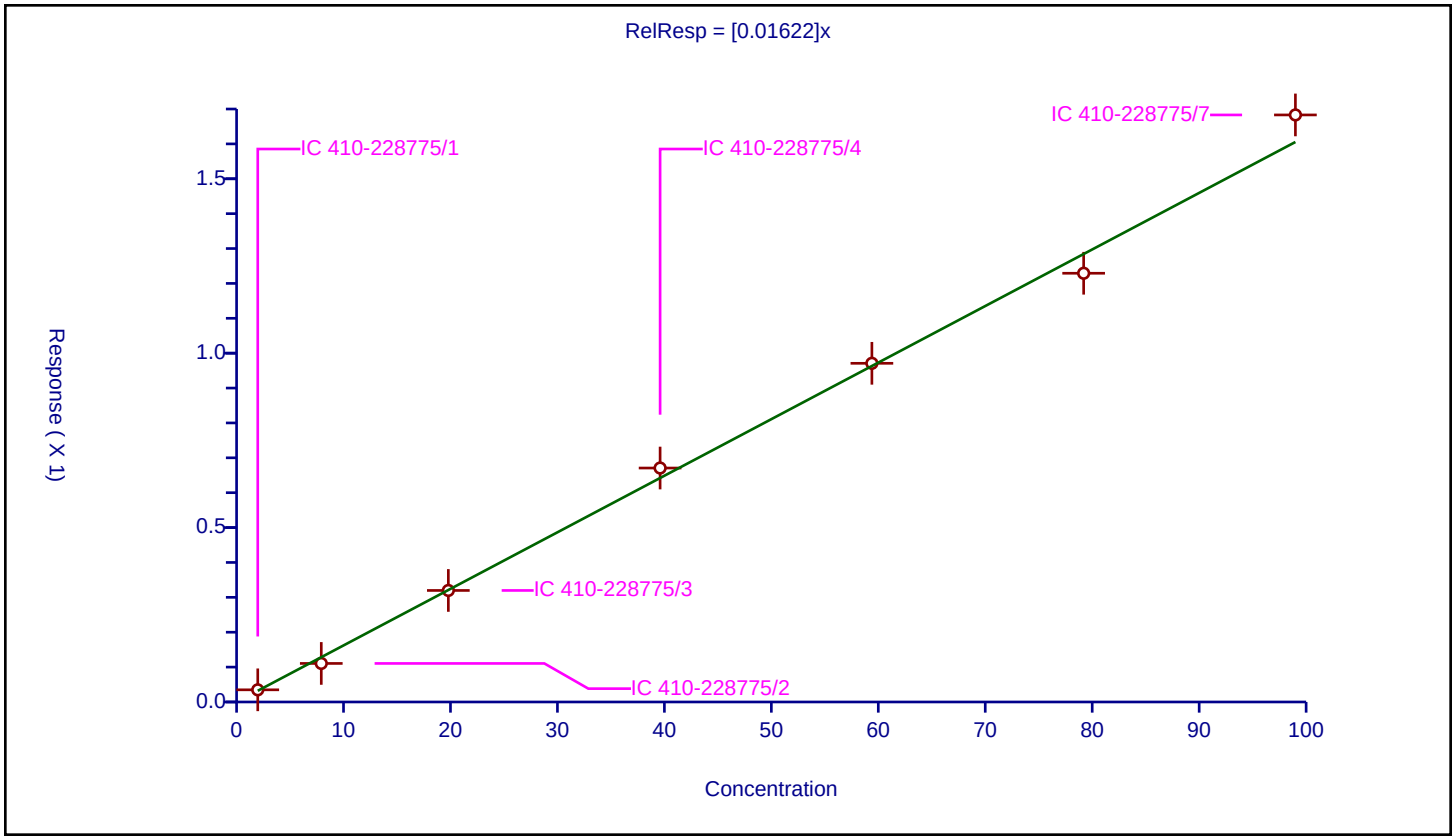
Curve Coefficients

Intercept:	0
Slope:	0.01622

Error Coefficients

Standard Error:	169000
Relative Standard Error:	7.4
Correlation Coefficient:	0.976
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	1.98	0.034861	10.0	2025738.0	0.017607	Y
2	IC 410-228775/2	7.92	0.110537	10.0	1924782.0	0.013957	Y
3	IC 410-228775/3	19.8	0.319748	10.0	1549660.0	0.016149	Y
4	IC 410-228775/4	39.6	0.670777	10.0	1512143.0	0.016939	Y
5	ICISAV 410-228775/5	59.4	0.970979	10.0	1441967.0	0.016346	Y
6	IC 410-228775/6	79.2	1.229142	10.0	2054848.0	0.015519	Y
7	IC 410-228775/7	99.0	1.683033	10.0	1627989.0	0.017	Y



Calibration / Perfluorotetradecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

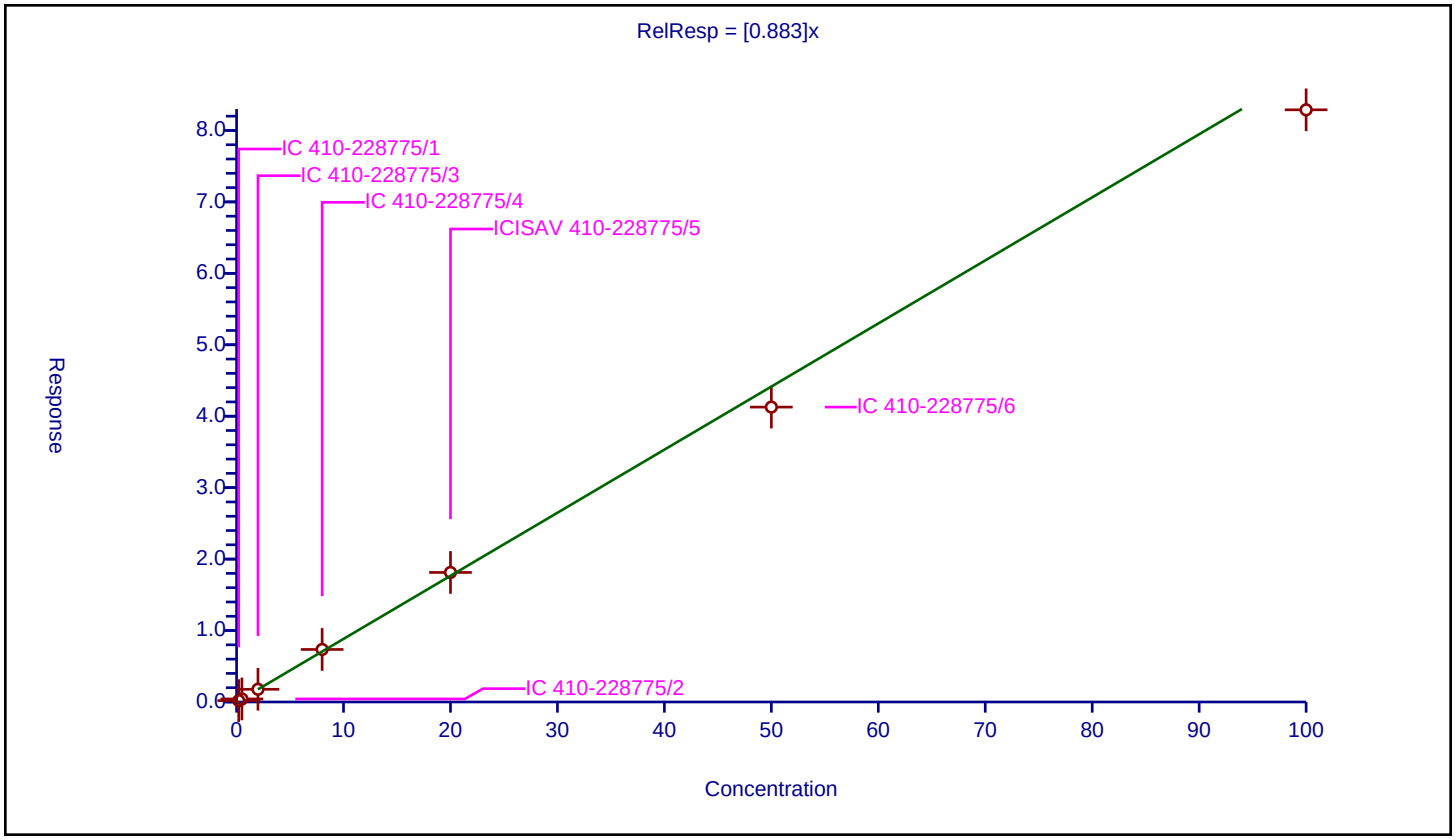
Curve Coefficients

Intercept:	0
Slope:	0.883

Error Coefficients

Standard Error:	17600000
Relative Standard Error:	5.6
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.191532	10.0	5188747.0	0.957659	Y
2	IC 410-228775/2	0.5	0.426618	10.0	4558412.0	0.853236	Y
3	IC 410-228775/3	2.0	1.77979	10.0	4119290.0	0.889895	Y
4	IC 410-228775/4	8.0	7.351714	10.0	3889927.0	0.918964	Y
5	ICISAV 410-228775/5	20.0	18.132382	10.0	3719679.0	0.906619	Y
6	IC 410-228775/6	50.0	41.277801	10.0	5016056.0	0.825556	Y
7	IC 410-228775/7	100.0	82.887435	10.0	4477445.0	0.828874	Y



Calibration / Perfluorohexadecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

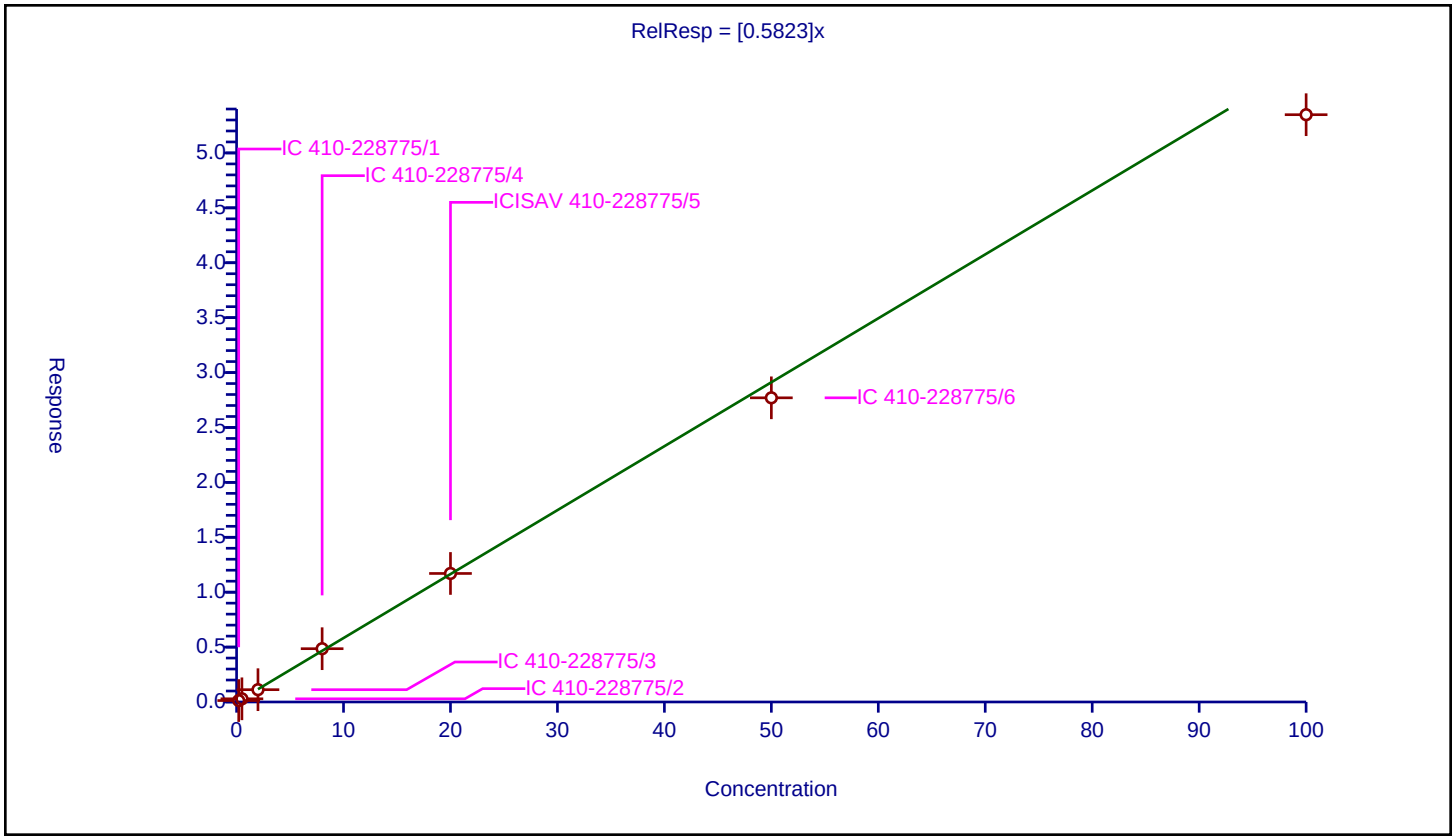
Curve Coefficients

Intercept:	0
Slope:	0.5823

Error Coefficients

Standard Error:	11500000
Relative Standard Error:	6.8
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.130904	10.0	5188747.0	0.654522	Y
2	IC 410-228775/2	0.5	0.290255	10.0	4558412.0	0.580509	Y
3	IC 410-228775/3	2.0	1.120958	10.0	4119290.0	0.560479	Y
4	IC 410-228775/4	8.0	4.852536	10.0	3889927.0	0.606567	Y
5	ICISAV 410-228775/5	20.0	11.704212	10.0	3719679.0	0.585211	Y
6	IC 410-228775/6	50.0	27.699719	10.0	5016056.0	0.553994	Y
7	IC 410-228775/7	100.0	53.482406	10.0	4477445.0	0.534824	Y



Calibration / Perfluorooctadecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

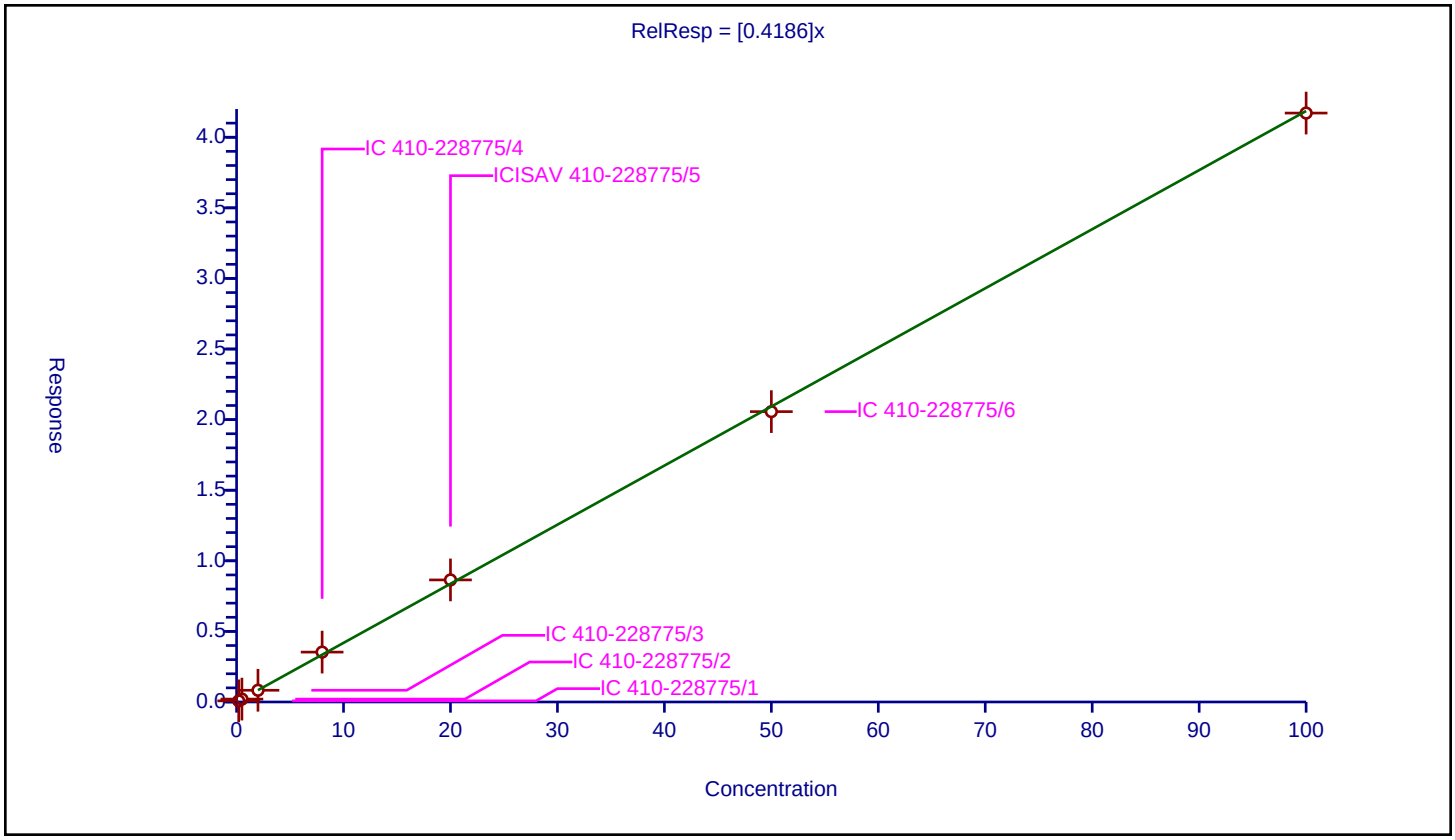
Curve Coefficients

Intercept:	0
Slope:	0.4186

Error Coefficients

Standard Error:	8830000
Relative Standard Error:	3.2
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-228775/1	0.2	0.080781	10.0	5188747.0	0.403903	Y
2	IC 410-228775/2	0.5	0.204483	10.0	4558412.0	0.408967	Y
3	IC 410-228775/3	2.0	0.829842	10.0	4119290.0	0.414921	Y
4	IC 410-228775/4	8.0	3.532138	10.0	3889927.0	0.441517	Y
5	ICISAV 410-228775/5	20.0	8.645673	10.0	3719679.0	0.432284	Y
6	IC 410-228775/6	50.0	20.565628	10.0	5016056.0	0.411313	Y
7	IC 410-228775/7	100.0	41.712361	10.0	4477445.0	0.417124	Y



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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-226473/1	22FEB22MCAL-01.d
Level 2	IC 410-226473/2	22FEB22MCAL-02.d
Level 3	IC 410-226473/3	22FEB22MCAL-03.d
Level 4	IC 410-226473/4	22FEB22MCAL-04.d
Level 5	ICISAV 410-226473/5	22FEB22MCAL-05.d
Level 6	IC 410-226473/6	22FEB22MCAL-06.d
Level 7	IC 410-226473/7	22FEB22MCAL-07.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
MTP	0.0626 0.0686	0.0535 +++++	0.0635	0.0580	0.0619	AveID		0.0614				8.4		20.0			
PPF Acid	0.4769 0.5118	0.4488 0.5452	0.4842	0.4640	0.5180	AveID		0.4927				6.8		20.0			
PFMOAA	0.2917 0.3130	0.2839 0.3372	0.2911	0.2779	0.3114	AveID		0.3009				6.9		20.0			
R-PSDA	0.0346 0.0314	0.0264 0.0352	0.0311	0.0300	0.0296	AveID		0.0312				9.7		20.0			
R-EVE	0.0950 0.0746	0.0719 0.0775	0.0752	0.0696	0.0761	AveID		0.0771				10.8		20.0			
Hydrolyzed PSDA	0.1456 0.1603	0.1658 0.1684	0.1605	0.1510	0.1467	AveID		0.1569				5.8		20.0			
Perfluorobutanoic acid	1.1751 0.9047	0.9104 0.8854	0.9713	0.8555	0.8972	AveID		0.9428				11.5		20.0			
PMPA	0.4085 0.4490	0.4043 0.4913	0.4181	0.4131	0.4682	AveID		0.4361				7.8		20.0			
Perfluoropropanesulfonic acid	0.2271 0.2304	0.2453 0.2114	0.2389	0.2191	0.2336	AveID		0.2294				5.0		20.0			
NVHOS	0.2846 0.2911	0.2824 0.3039	0.3060	0.2720	0.2654	AveID		0.2865				5.3		20.0			
PFECA F	0.9054 0.8749	0.8850 0.8238	0.9976	0.8693	0.9268	AveID		0.8975				6.1		20.0			
PFO2HxA	0.2987 0.3059	0.2835 0.3341	0.3023	0.2824	0.3122	AveID		0.3028				5.8		20.0			
Perfluoropentanoic acid	1.0930 1.0299	1.0331 1.0201	1.1259	0.9428	1.0190	AveID		1.0377				5.6		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
3:3 FTCA	0.0865 0.0649	0.0686 0.0588	0.0661	0.0589	0.0653	AveID		0.0670				14.0		20.0			
Perfluorobutanesulfonic acid	1.1407 1.0211	1.1373 1.1142	1.1213	1.0218	0.9757	AveID		1.0760				6.3		20.0			
PEPA	0.1952 0.1798	0.1866 0.1851	0.1823	0.1738	0.1827	AveID		0.1836				3.6		20.0			
PFECA A	0.9374 1.0022	0.9640 0.9884	1.0172	0.9185	0.8628	AveID		0.9558				5.6		20.0			
Perfluoro (2-ethoxyethane) sulfonic acid	3.3076 3.3420	3.3332 3.3929	3.4316	3.3995	3.0910	AveID		3.3283				3.4		20.0			
PFECA B	1.2849 1.1632	1.1269 1.1883	1.2226	1.1180	1.1111	AveID		1.1736				5.4		20.0			
4:2 Fluorotelomer sulfonic acid	3.1232 +++++	3.1480 +++++	3.2770	2.8932	3.1285	AveID		3.1140				4.4		20.0			
Perfluorohexanoic acid	0.8886 0.8046	0.8728 0.8769	0.8061	0.7606	0.8610	AveID		0.8387				5.7		20.0			
Perfluoropentanesulfonic acid	0.8743 0.9565	0.9690 0.9739	1.0153	0.8967	0.9260	AveID		0.9445				5.1		20.0			
PFO3OA	0.3119 0.2912	0.2607 0.2922	0.2783	0.2648	0.3006	AveID		0.2857				6.6		20.0			
HFPODA	2.2725 1.8751	2.0825 1.8070	2.0059	1.4819	1.8652	AveID		1.9129				12.9		20.0			
Hydro-EVE Acid	1.3078 1.2608	1.2487 1.3391	1.2199	1.1610	1.3138	AveID		1.2645				4.9		20.0			
R-PSDCA	2.5020 2.4571	2.2783 2.6185	2.3549	2.2050	2.2512	AveID		2.3810				6.3		20.0			
Hydro-PS Acid	1.8891 1.9270	1.8037 2.0392	1.9489	1.8184	1.7492	AveID		1.8822				5.3		20.0			
Perfluoroheptanoic acid	1.0830 0.9956	0.9526 0.9844	1.1159	0.9980	0.9437	AveID		1.0105				6.4		20.0			
Perfluorohexanesulfonic acid	1.2216 1.0926	0.9834 1.1046	1.1664	1.0543	0.9859	AveID		1.0870				8.1		20.0			
DONA	1.2537 1.3965	1.0683 1.4344	1.3562	1.1932	1.2154	AveID		1.2740				10.1		20.0			
PFECA G	1.5121 1.4312	1.3050 1.4540	1.5111	1.3840	1.5442	AveID		1.4488				5.8		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
5:3 FTCA	0.2230 0.2102	0.1910 0.1944	0.2141	0.1868	0.1916	AveID		0.2016				6.9		20.0			
6:2 FTUCA	1.5834 1.3301	1.5253 1.1779	1.3470	1.2384	1.3090	AveID		1.3587				10.8		20.0			
6:2 FTCA	1.2461 +++++	1.0848 +++++	0.9627	0.9707	1.0090	AveID		1.0547				11.1		20.0			
PFO4DA	0.3196 0.3442	0.3144 0.3665	0.3201	0.3091	0.3427	AveID		0.3310				6.3		20.0			
PS Acid	0.5163 0.6201	0.5836 0.6274	0.6777	0.5822	0.5779	AveID		0.5979				8.4		20.0			
EVE Acid	0.9022 0.9608	0.9126 0.9696	1.0324	0.9238	1.0671	AveID		0.9669				6.5		20.0			
Perfluoro-4-ethylcyclohexanesulfonic acid	1.7081 1.9806	1.6932 1.9164	1.8129	1.6297	1.6999	AveID		1.7773				7.3		20.0			
Perfluoroheptanesulfonic acid	1.0060 1.0346	0.9383 1.1211	1.1013	0.9432	0.9620	AveID		1.0152				7.3		20.0			
6:2 Fluorotelomer sulfonic acid	4.9297 +++++	4.4289 +++++	4.6674	3.6008	4.9198	AveID		4.5093				12.2		20.0			
Perfluorooctanoic acid	0.7997 0.7698	0.7142 0.8203	0.8266	0.6590	0.7631	AveID		0.7647				7.9		20.0			
TAF	0.2925 0.2997	0.2833 0.3068	0.2832	0.2889	0.3122	AveID		0.2952				3.9		20.0			
Perfluorooctanesulfonic acid	1.2208 1.0947	1.0216 1.1095	0.9927	0.9832	1.0378	AveID		1.0658				7.8		20.0			
Perfluorononanoic acid	1.0404 0.9311	0.9055 0.8926	0.9703	0.8388	0.9024	AveID		0.9259				6.9		20.0			
7:3 FTCA	3.6930 +++++	3.1979 +++++	3.0906	3.2249	3.2741	AveID		3.2961				7.0		20.0			
8:2 FTUCA	1.1454 +++++	1.0386 +++++	1.1422	0.9687	1.0343	AveID		1.0658				7.2		20.0			
8:2 FTCA	0.8914 +++++	0.8116 +++++	1.0452	0.9242	1.0184	AveID		0.9382				10.2		20.0			
9Cl-PF3ONS	1.8648 2.0447	1.5315 1.9608	1.8819	1.6911	1.7550	AveID		1.8185				9.5		20.0			
Perfluorononanesulfonic acid	1.0184 0.9944	0.9019 1.0277	1.0303	0.9694	1.0516	AveID		0.9991				5.1		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perfluorodecanoic acid	1.2569 0.8461	1.0594 0.9244	0.9711	0.8689	0.9259	AveID		0.9790				14.4		20.0			
8:2 Fluorotelomer sulfonic acid	8.4613 +++++	7.3946 +++++	7.6608	7.7987	7.3259	AveID		7.7283				5.9		20.0			
Perfluorooctanesulfonamide	1.1301 0.9324	1.0347 1.0327	0.9688	0.9435	0.9912	AveID		1.0048				6.8		20.0			
NMeFOSAA	0.7776 +++++	0.8142 +++++	0.8487	0.8289	0.8527	AveID		0.8244				3.7		20.0			
Perfluorodecanesulfonic acid	1.1769 1.0284	0.9966 1.0433	1.0065	0.9363	1.0784	AveID		1.0381				7.3		20.0			
Perfluoroundecanoic acid	0.8954 0.9048	0.8278 0.9065	0.9263	0.8225	0.8961	AveID		0.8828				4.6		20.0			
NEtFOSAA	0.9062 +++++	0.8159 +++++	0.9519	0.8629	0.9213	AveID		0.8916				6.0		20.0			
10:2 FTUCA	1.0266 0.9868	1.0782 +++++	1.0670	0.9405	1.0348	AveID		1.0223				5.0		20.0			
11Cl-PF3OUdS	1.2979 1.4090	1.2337 1.3847	1.3424	1.2951	1.3691	AveID		1.3331				4.6		20.0			
10:2 FTCA	1.5625 0.8600	1.2429 0.8515	1.0133	0.9840	0.9884	L1ID	0.1820	0.8715							0.9970		0.9900
Perfluorododecanoic acid	1.1136 0.9830	1.0444 0.9994	1.0724	0.9373	0.9750	AveID		1.0179				6.0		20.0			
NMeFOSE	1.0270 1.0244	1.0871 1.1054	1.1300	1.0033	1.1036	AveID		1.0687				4.6		20.0			
10:2 FTS	4.7595 +++++	6.2528 +++++	4.6450	5.2403	4.7242	AveID		5.1244				13.1		20.0			
NMeFOSA	1.4591 +++++	1.0107 +++++	1.0622	0.9769	1.1032	AveID		1.1224				17.3		20.0			
NEtFOSE	1.0145 0.9877	1.0017 0.9962	1.1287	1.0238	1.1310	AveID		1.0405				6.0		20.0			
Perfluorododecanesulfonic acid	1.0804 0.9744	0.9215 0.9508	0.9820	0.8428	0.9448	AveID		0.9567				7.5		20.0			
NEtFOSA	1.1210 1.0236	1.1144 +++++	1.0137	0.9924	1.0872	AveID		1.0587				5.2		20.0			
Perfluorotridecanoic acid	0.7922 0.6816	0.7839 0.7114	0.8014	0.6844	0.7717	AveID		0.7467				7.0		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perfluorotetradecanoic acid	0.9157 0.8625	0.9459 0.8653	1.0322	0.9106	0.8908	AveID		0.9176				6.4		20.0			
Perfluorohexadecanoic acid	1.2135 0.8699	1.1158 0.9559	1.0859	1.0133	0.9320	AveID		1.0266				11.6		20.0			
Perfluorooctadecanoic acid	0.4133 0.3994	0.4665 0.4315	0.4609	0.4055	0.4131	AveID		0.4272				6.3		20.0			
13C4 PFBA	1.1290 1.0838	1.1381 1.0840	1.1546	1.0938	1.1085	Ave		1.1131				2.5		20.0			
13C5 PFPeA	0.9203 0.9648	0.9310 0.9528	0.9879	0.9554	1.0137	Ave		0.9609				3.3		20.0			
13C3 PFBS	0.7399 0.7640	0.7262 0.7394	0.7690	0.7394	0.8469	Ave		0.7607				5.4		20.0			
M2-4:2 FTS	0.1366 +++++	0.1398 +++++	0.1465	0.1413	0.1302	Ave		0.1389				4.4		20.0			
13C5 PFHxA	1.0998 1.0735	1.0826 0.9976	1.1441	1.1084	1.0565	Ave		1.0804				4.3		20.0			
13C3 HFPO-DA	0.1433 0.1540	0.1529 0.1800	0.1526	0.1809	0.1487	Ave		0.1589				9.5		20.0			
13C3 PFHxS	0.6286 0.6410	0.7055 0.6085	0.6746	0.6952	0.7228	Ave		0.6680				6.4		20.0			
13C4 PFHpA	1.1894 1.0836	1.3171 1.0628	1.2609	1.2578	1.2462	Ave		1.2026				8.0		20.0			
13C2-2H-Perfluoro-2-octenoic acid	0.9569 0.9949	1.0638 0.9888	1.1701	1.0571	1.0431	Ave		1.0392				6.7		20.0			
13C2-2-Perfluorohexylethanoic acid	0.0904 +++++	0.0980 +++++	0.1043	0.0965	0.0879	Ave		0.0954				6.8		20.0			
M2-6:2 FTS	0.0550 +++++	0.0610 +++++	0.0600	0.0614	0.0496	Ave		0.0574				8.8		20.0			
13C8 PFOA	1.3281 1.2087	1.4118 1.1971	1.3727	1.4018	1.3524	Ave		1.3246				6.6		20.0			
13C8 PFOS	1.0481 0.9651	1.0581 0.9460	1.0383	1.0001	1.0060	Ave		1.0088				4.2		20.0			
13C9 PFNA	1.8392 1.5343	1.7965 1.5973	1.7010	1.6615	1.6253	Ave		1.6793				6.5		20.0			
13C2-2H-Perfluoro-2-decenoic acid	1.0856 +++++	1.1393 +++++	1.0432	1.1555	1.0890	Ave		1.1025				4.1		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
13C2-2-Perfluorooctylethanoic acid	0.0774 +++++	0.0745 +++++	0.0743	0.0725	0.0708	Ave		0.0739				3.3		20.0			
13C6 PFDA	1.0043 0.9950	0.9833 0.9410	0.9561	1.0223	1.0674	Ave		0.9956				4.2		20.0			
M2-8:2 FTS	0.0278 +++++	0.0261 +++++	0.0278	0.0250	0.0290	Ave		0.0271				5.9		20.0			
13C8 FOSA	0.8880 0.9680	0.9315 0.9167	0.9074	0.9731	1.0026	Ave		0.9410				4.4		20.0			
d3-NMeFOSAA	0.3319 +++++	0.3216 +++++	0.3234	0.3422	0.3595	Ave		0.3357				4.6		20.0			
13C7 PFUnA	1.0515 0.9013	1.0503 0.8583	0.9336	0.9668	1.0077	Ave		0.9671				7.7		20.0			
d5-NEtFOSAA	0.2413 +++++	0.2410 +++++	0.2168	0.2370	0.2383	Ave		0.2349				4.4		20.0			
13C2-2H-Perfluoro-2-dodecenoic acid	0.8194 0.8265	0.8195 +++++	0.8169	0.8795	0.8395	Ave		0.8336				2.9		20.0			
13C2-2-Perfluorodecylethanoic acid	0.0372 0.0422	0.0421 0.0398	0.0409	0.0431	0.0434	Ave		0.0412				5.3		20.0			
13C2-PFDoDA	0.6934 0.7090	0.6920 0.7118	0.6756	0.7621	0.7768	Ave		0.7173				5.3		20.0			
d7-N-MeFOSE-M	0.1473 0.1542	0.1430 0.1588	0.1402	0.1478	0.1525	Ave		0.1491				4.4		20.0			
d3-NMePFOSA	0.0941 +++++	0.0949 +++++	0.0932	0.0973	0.1000	Ave		0.0959				2.9		20.0			
d9-N-EtFOSE-M	0.1657 0.1791	0.1661 0.1896	0.1652	0.1615	0.1655	Ave		0.1704				6.0		20.0			
d5-NEtPFOSA	0.0904 0.0930	0.0906 +++++	0.0900	0.0908	0.0942	Ave		0.0915				1.9		20.0			
13C2 PFTeDA	0.6015 0.6577	0.5477 0.6385	0.5418	0.5870	0.6667	Ave		0.6058				8.3		20.0			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-226473/1	22FEB22MCAL-01.d
Level 2	IC 410-226473/2	22FEB22MCAL-02.d
Level 3	IC 410-226473/3	22FEB22MCAL-03.d
Level 4	IC 410-226473/4	22FEB22MCAL-04.d
Level 5	ICISAV 410-226473/5	22FEB22MCAL-05.d
Level 6	IC 410-226473/6	22FEB22MCAL-06.d
Level 7	IC 410-226473/7	22FEB22MCAL-07.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
MTP		AveID	1927 520859	4458 +++++	20942	75965	188497	0.200 50.0	0.500 +++++	2.00	8.00	20.0
PPF Acid		AveID	14686 3883089	37374 8059200	159687	607970	1577221	0.200 50.0	0.500 100	2.00	8.00	20.0
PFMOAA		AveID	8983 2374615	23637 4984510	95982	364111	948101	0.200 50.0	0.500 100	2.00	8.00	20.0
R-PSDA		AveID	699 167874	1403 354866	6825	26558	68924	0.200 50.0	0.500 100	2.00	8.00	20.0
R-EVE		AveID	2925 566092	5985 1145500	24809	91206	231687	0.200 50.0	0.500 100	2.00	8.00	20.0
Hydrolyzed PSDA		AveID	2939 857218	8807 1698563	35249	133758	341173	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorobutanoic acid		AveID	36189 6864337	75807 13088818	320295	1120821	2731789	0.200 50.0	0.500 100	2.00	8.00	20.0
PMPA		AveID	12580 3406536	33662 7262383	137874	541263	1425553	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluoropropanesulfonic acid		AveID	6406 1601116	18707 2863305	72161	262990	651535	0.183 45.8	0.458 91.6	1.83	7.33	18.3

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
NVHOS		AveID	5745 1557079	15006 3064065	67216	240858	617414	0.200 50.0	0.500 100	2.00	8.00	20.0
PFECA F		AveID	27883 6638284	73696 12178989	328963	1138957	2821770	0.200 50.0	0.500 100	2.00	8.00	20.0
PFO2HxA		AveID	9199 2321316	23610 4939371	99699	370052	950622	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluoropentanoic acid		AveID	27438 6956566	70370 13255302	317677	1079011	2837408	0.200 50.0	0.500 100	2.00	8.00	20.0
3:3 FTCA		AveID	2172 438028	4672 764390	18656	67413	181712	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorobutanesulfonic acid		AveID	20377 4833290	53481 9943301	217953	800930	2008577	0.177 44.3	0.443 88.5	1.77	7.08	17.7
PEPA		AveID	6013 1363962	15539 2736013	60121	227699	556155	0.200 50.0	0.500 100	2.00	8.00	20.0
PFECA A		AveID	18921 5359965	51223 9967018	223415	813515	2006817	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluoro (2-ethoxyethane) sulfonic acid		AveID	59419 15907585	157624 30450639	670801	2679609	6398887	0.178 44.5	0.445 89.0	1.78	7.12	17.8
PFECA B		AveID	25936 6221300	59878 11983132	268526	990160	2584528	0.200 50.0	0.500 100	2.00	8.00	20.0
4:2 Fluorotelomer sulfonic acid		AveID	12118 +++++	31611 +++++	138992	473527	1162525	0.187 +++++	0.467 +++++	1.87	7.47	18.7
Perfluorohexanoic acid		AveID	29728 6451903	72661 12612423	285838	1045789	2780252	0.200 50.0	0.500 100	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perfluoropentanesulfonic acid		AveID	16554 4798585	48293 9211514	209177	744897	2020367	0.188 46.9	0.469 93.8	1.88	7.50	18.8
PFO3OA		AveID	9607 2209365	21705 4319339	91788	346905	915230	0.200 50.0	0.500 100	2.00	8.00	20.0
HFPODA		AveID	9907 2156577	24492 4689678	94885	332523	847499	0.200 50.0	0.500 100	2.00	8.00	20.0
Hydro-EVE Acid		AveID	40277 9566306	103977 19796023	402277	1521165	4000289	0.200 50.0	0.500 100	2.00	8.00	20.0
R-PSDCA		AveID	50502 13141350	121055 26404682	517231	1952931	5236436	0.200 50.0	0.500 100	2.00	8.00	20.0
Hydro-PS Acid		AveID	38130 10305892	95837 20563075	428050	1610483	4068861	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluoroheptanoic acid		AveID	39184 8058148	96485 15082767	436096	1557036	3594624	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorohexanesulfonic acid		AveID	21304 4771437	48659 8837725	222396	829162	1986247	0.182 45.6	0.456 91.2	1.82	7.30	18.2
DONA		AveID	42865 10682085	102255 20769825	500852	1759217	4374644	0.189 47.3	0.473 94.5	1.89	7.56	18.9
PFECA G		AveID	46568 10858710	108666 21495071	498299	1813251	4701615	0.200 50.0	0.500 100	2.00	8.00	20.0
5:3 FTCA		AveID	8067 1701411	19346 2978020	83656	291472	729867	0.200 50.0	0.500 100	2.00	8.00	20.0
6:2 FTUCA		AveID	46090 9884862	124778 16791249	488458	1623840	4173241	0.200 50.0	0.500 100	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
6:2 FTCA		AveI D	3428 +++++	8177 +++++	31119	116241	271106	0.200 +++++	0.500 +++++	2.00	8.00	20.0
PFO4DA		AveI D	9843 2611676	26183 5417455	105572	404941	1043474	0.200 50.0	0.500 100	2.00	8.00	20.0
PS Acid		AveI D	10422 3316559	31009 6327050	148852	515632	1344138	0.200 50.0	0.500 100	2.00	8.00	20.0
EVE Acid		AveI D	27784 7289540	75989 14334404	340440	1210404	3249049	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluoro-4-ethylcyclohexanesulfonic acid		AveI D	30180 8763004	84882 15533809	350215	1298493	3469792	0.185 46.2	0.462 92.4	1.85	7.39	18.5
Perfluoroheptanesulfonic acid		AveI D	18313 4716234	48460 9362625	219197	774260	2023055	0.190 47.6	0.476 95.2	1.90	7.62	19.0
6:2 Fluorotelomer sulfonic acid		AveI D	7814 +++++	19705 +++++	82211	260062	707397	0.190 +++++	0.474 +++++	1.90	7.58	19.0
Perfluorooctanoic acid		AveI D	32309 6950759	77536 14156521	351645	1145793	3154253	0.200 50.0	0.500 100	2.00	8.00	20.0
TAF		AveI D	9007 2273561	23594 4536178	93380	378494	950489	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorooctanesulfonic acid		AveI D	20035 4949639	49421 9325779	195331	766626	1921287	0.185 46.3	0.463 92.6	1.85	7.40	18.5
Perfluorononanoic acid		AveI D	32374 7231462	80357 13687973	337948	1174091	2916521	0.200 50.0	0.500 100	2.00	8.00	20.0
7:3 FTCA		AveI D	10159 +++++	24105 +++++	99902	386160	879683	0.200 +++++	0.500 +++++	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
8:2 FTUCA		AveI D	44965 +++++	115136 +++++	490632	1732593	3953517	0.200 +++++	0.500 +++++	2.00	8.00	20.0
8:2 FTCA		AveI D	2494 +++++	5881 +++++	31964	103771	252942	0.200 +++++	0.500 +++++	2.00	8.00	20.0
9Cl-PF3ONS		AveI D	30753 9289655	74445 16560924	372077	1324953	3264851	0.186 46.5	0.465 93.0	1.86	7.44	18.6
Perfluorononanesulfonic acid		AveI D	17337 4663793	45254 8960473	210281	784016	2019479	0.192 48.0	0.480 96.0	1.92	7.68	19.2
Perfluorodecanoic acid		AveI D	45650 7549234	101366 14642849	382286	1374914	3468669	0.200 50.0	0.500 100	2.00	8.00	20.0
8:2 Fluorotelomer sulfonic acid		AveI D	8164 +++++	17959 +++++	83961	288853	714617	0.192 +++++	0.479 +++++	1.92	7.66	19.2
Perfluorooctanesulfonamide		AveI D	36294 8093417	93779 15934115	361967	1421261	3488135	0.200 50.0	0.500 100	2.00	8.00	20.0
NMeFOSAA		AveI D	9334 +++++	25478 +++++	113025	439059	1076032	0.200 +++++	0.500 +++++	2.00	8.00	20.0
Perfluorodecanesulfonic acid		AveI D	20118 4842940	50217 9133769	206289	760397	2079586	0.193 48.2	0.482 96.4	1.93	7.71	19.3
Perfluoroundecanoic acid		AveI D	34048 7312986	84599 13095570	356096	1230937	3169358	0.200 50.0	0.500 100	2.00	8.00	20.0
NEtFOSAA		AveI D	7909 +++++	19135 +++++	84977	316551	770737	0.200 +++++	0.500 +++++	2.00	8.00	20.0
10:2 FTUCA		AveI D	30421 7313920	85979 +++++	358901	1280460	3048890	0.200 50.0	0.500 +++++	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
11Cl-PF3OUdS		AveI D	21405 6401509	59971 11695809	265409	1014714	2547083	0.186 46.5	0.465 93.0	1.86	7.44	18.6
10:2 FTCA		L1ID	2101 325399	5090 570609	17060	65626	150452	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorododecanoic acid		AveI D	27925 6249929	70326 11974846	298352	1105686	2658055	0.200 50.0	0.500 100	2.00	8.00	20.0
NMeFOSE		AveI D	5471 1416548	15125 2954851	65237	229552	590501	0.200 50.0	0.500 100	2.00	8.00	20.0
10:2 FTS		AveI D	4621 +++++	15281 +++++	51227	195307	463715	0.193 +++++	0.482 +++++	1.93	7.71	19.3
NMeFOSA		AveI D	4967 +++++	9330 +++++	40785	147204	387249	0.200 +++++	0.500 +++++	2.00	8.00	20.0
NEtFOSE		AveI D	6078 1586124	16194 3180029	76761	255867	657068	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorododecanesulfonic acid		AveI D	18545 4607936	46622 8358729	202090	687272	1829528	0.194 48.4	0.484 96.8	1.94	7.74	19.4
NEtFOSA		AveI D	3663 853441	9827 +++++	37558	139522	359556	0.200 50.0	0.500 +++++	2.00	8.00	20.0
Perfluorotridecanoic acid		AveI D	19867 4333818	52787 8523500	222948	807410	2103865	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorotetradecanoic acid		AveI D	19919 5086908	50413 9299254	230284	827431	2084396	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorohexadecanoic acid		AveI D	26395 5130977	59464 10273140	242281	920706	2180799	0.200 50.0	0.500 100	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perfluorooctadecanoic acid		AveID	8989 2355715	24862 4637666	102826	368427	966512	0.200 50.0	0.500 100	2.00	8.00	20.0
13C4 PFBA	13C3 PFBA	Ave	1539871 1517458	1665382 1478324	1648826	1637723	1522365	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C5 PFPeA	13C3 PFBA	Ave	1255168 1350864	1362341 1299452	1410804	1430612	1392197	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C3 PFBS	13C3 PFBA	Ave	944636 1001189	994670 943866	1027896	1036229	1088599	9.36 9.36	9.36 9.36	9.36	9.36	9.36
M2-4:2 FTS	13PFOA	Ave	194000 +++++	200831 +++++	212074	204585	185798	9.34 +++++	9.34 +++++	9.34	9.34	9.34
13C5 PFHxA	13PFOA	Ave	1672761 1603805	1665015 1438268	1772970	1718642	1614532	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C3 HFPO-DA	13PFOA	Ave	217980 230025	235217 259531	236517	280487	227192	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C3 PFHxS	13PFOA	Ave	904480 905967	1026465 829889	988880	1019675	1044892	9.46 9.46	9.46 9.46	9.46	9.46	9.46
13C4 PFHpA	13PFOA	Ave	1809071 1618817	2025681 1532250	1953952	1950218	1904482	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-2H-Perfluoro-2-octenoic acid	13PFOA	Ave	1455442 1486378	1636105 1425476	1813180	1639032	1594009	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-2-Perfluorohexylethanoic acid	13PFOA	Ave	137545 +++++	150753 +++++	161624	149681	134338	10.0 +++++	10.0 +++++	10.0	10.0	10.0
M2-6:2 FTS	13PFOA	Ave	79421 +++++	89171 +++++	88256	90469	72044	9.50 +++++	9.50 +++++	9.50	9.50	9.50

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
13C8 PFOA	13PFOA	Ave	2020047 1805759	2171325 1725815	2127092	2173443	2066717	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C8 PFOS	PFOS	Ave	848072 934557	999904 868688	1016763	1007256	956684	9.57 9.57	9.57 9.57	9.57	9.57	9.57
13C9 PFNA	PFOS	Ave	1555830 1553276	1774852 1533501	1741409	1749557	1615951	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-2H-Perfluoro-2-decenoic acid	PFDA	Ave	1962937 +++++	2217146 +++++	2147770	2235812	1911155	10.0 +++++	10.0 +++++	10.0	10.0	10.0
13C2-2-Perfluorooctylethanoic acid	PFDA	Ave	139896 +++++	144916 +++++	152908	140359	124183	10.0 +++++	10.0 +++++	10.0	10.0	10.0
13C6 PFDA	PFDA	Ave	1815906 1784531	1913566 1584027	1968353	1977943	1873145	10.0 10.0	10.0 10.0	10.0	10.0	10.0
M2-8:2 FTS	PFDA	Ave	48243 +++++	48573 +++++	54799	46298	48773	9.58 +++++	9.58 +++++	9.58	9.58	9.58
13C8 FOSA	PFDA	Ave	1605731 1736020	1812715 1542970	1868144	1882885	1759508	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d3-NMeFOSAA	PFDA	Ave	600175 +++++	625846 +++++	665897	662084	630934	10.0 +++++	10.0 +++++	10.0	10.0	10.0
13C7 PFUnA	PFDA	Ave	1901258 1616465	2043920 1444666	1922140	1870688	1768379	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d5-NEtFOSAA	PFDA	Ave	436365 +++++	469078 +++++	446354	458557	418273	10.0 +++++	10.0 +++++	10.0	10.0	10.0
13C2-2H-Perfluoro-2-dodecenoic acid	PFDA	Ave	1481617 1482276	1594897 +++++	1681798	1701766	1473223	10.0 10.0	10.0 +++++	10.0	10.0	10.0
13C2-2-Perfluorodecylethanoic acid	PFDA	Ave	67230 75674	81904 67016	84182	83365	76108	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-PFDoDA	PFDA	Ave	1253865 1271625	1346766 1198210	1391002	1474572	1363171	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d7-N-MeFOSE-M	PFDA	Ave	266352 276568	278264 267319	288660	285988	267540	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d3-NMePFOSA	PFDA	Ave	170205	184624	191975	188356	175505	10.0	10.0	10.0	10.0	10.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			+++++	+++++				+++++	+++++			
d9-N-EtFOSE-M	PFDA	Ave	299568 321176	323332 319202	340043	312398	290487	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d5-NEtPFOSA	PFDA	Ave	163387 166758	176358 +++++	185252	175731	165352	10.0 10.0	10.0 +++++	10.0	10.0	10.0
13C2 PFTeDA	PFDA	Ave	1087598 1179607	1065880 1074706	1115535	1135827	1169950	10.0 10.0	10.0 10.0	10.0	10.0	10.0

Curve Type Legend
Ave = Average ISTD
AveID = Average isotope dilution
L1ID = Linear 1/conc IsoDil

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-226473/1	22FEB22MCAL-01.d
Level 2	IC 410-226473/2	22FEB22MCAL-02.d
Level 3	IC 410-226473/3	22FEB22MCAL-03.d
Level 4	IC 410-226473/4	22FEB22MCAL-04.d
Level 5	ICISAV 410-226473/5	22FEB22MCAL-05.d
Level 6	IC 410-226473/6	22FEB22MCAL-06.d
Level 7	IC 410-226473/7	22FEB22MCAL-07.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
MTP	2.0 +++++	-12.7	3.5	-5.5	0.9	11.9	50	30	30	30	30	30
PPF Acid	-3.2 10.6	-8.9	-1.7	-5.8	5.1	3.9	50 30	30	30	30	30	30
PFMOAA	-3.1 12.1	-5.7	-3.3	-7.6	3.5	4.0	50 30	30	30	30	30	30
R-PSDA	11.0 12.8	-15.3	-0.4	-3.8	-5.0	0.6	50 30	30	30	30	30	30
R-EVE	23.1 0.5	-6.8	-2.5	-9.7	-1.3	-3.3	50 30	30	30	30	30	30
Hydrolyzed PSDA	-7.2 7.4	5.6	2.3	-3.7	-6.5	2.2	50 30	30	30	30	30	30
Perfluorobutanoic acid	24.6 -6.1	-3.4	3.0	-9.3	-4.8	-4.0	50 30	30	30	30	30	30
PMPA	-6.3 12.7	-7.3	-4.1	-5.3	7.4	3.0	50 30	30	30	30	30	30
Perfluoropropanesulfonic acid	-1.0 -7.8	6.9	4.1	-4.5	1.8	0.4	50 30	30	30	30	30	30
NVHOS	-0.7 6.1	-1.4	6.8	-5.1	-7.4	1.6	50 30	30	30	30	30	30
PFECA F	0.9 -8.2	-1.4	11.1	-3.1	3.3	-2.5	50 30	30	30	30	30	30
PFO2HxA	-1.3 10.4	-6.3	-0.1	-6.7	3.1	1.1	50 30	30	30	30	30	30
Perfluoropentanoic acid	5.3 -1.7	-0.4	8.5	-9.1	-1.8	-0.7	50 30	30	30	30	30	30
3:3 FTCA	29.1 -12.2	2.4	-1.3	-12.1	-2.6	-3.2	50 30	30	30	30	30	30

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Perfluorobutanesulfonic acid	6.0 3.5	5.7	4.2	-5.0	-9.3	-5.1	50 30	30	30	30	30	30
PEPA	6.3 0.8	1.6	-0.7	-5.4	-0.5	-2.1	50 30	30	30	30	30	30
PFECA A	-1.9 3.4	0.9	6.4	-3.9	-9.7	4.9	50 30	30	30	30	30	30
Perfluoro (2-ethoxyethane) sulfonic acid	-0.6 1.9	0.1	3.1	2.1	-7.1	0.4	50 30	30	30	30	30	30
PFECA B	9.5 1.3	-4.0	4.2	-4.7	-5.3	-0.9	50 30	30	30	30	30	30
4:2 Fluorotelomer sulfonic acid	0.3 +++++	1.1	5.2	-7.1	0.5	+++++	50	30	30	30	30	
Perfluorohexanoic acid	6.0 4.6	4.1	-3.9	-9.3	2.7	-4.1	50 30	30	30	30	30	30
Perfluoropentanesulfonic acid	-7.4 3.1	2.6	7.5	-5.1	-2.0	1.3	50 30	30	30	30	30	30
PFO3OA	9.2 2.3	-8.8	-2.6	-7.3	5.2	1.9	50 30	30	30	30	30	30
HFPODA	18.8 -5.5	8.9	4.9	-22.5	-2.5	-2.0	50 30	30	30	30	30	30
Hydro-EVE Acid	3.4 5.9	-1.2	-3.5	-8.2	3.9	-0.3	50 30	30	30	30	30	30
R-PSDCA	5.1 10.0	-4.3	-1.1	-7.4	-5.5	3.2	50 30	30	30	30	30	30
Hydro-PS Acid	0.4 8.3	-4.2	3.5	-3.4	-7.1	2.4	50 30	30	30	30	30	30
Perfluoroheptanoic acid	7.2 -2.6	-5.7	10.4	-1.2	-6.6	-1.5	50 30	30	30	30	30	30
Perfluorohexanesulfonic acid	12.4 1.6	-9.5	7.3	-3.0	-9.3	0.5	50 30	30	30	30	30	30
DONA	-1.6 12.6	-16.1	6.5	-6.3	-4.6	9.6	50 30	30	30	30	30	30
PFECA G	4.4 0.4	-9.9	4.3	-4.5	6.6	-1.2	50 30	30	30	30	30	30
5:3 FTCA	10.6 -3.6	-5.2	6.2	-7.3	-4.9	4.3	50 30	30	30	30	30	30
6:2 FTUCA	16.5 -13.3	12.3	-0.9	-8.9	-3.7	-2.1	50 30	30	30	30	30	30

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
6:2 FTCA	18.2 +++++	2.9	-8.7	-8.0	-4.3	+++++	50	30	30	30	30	
PFO4DA	-3.4 10.7	-5.0	-3.3	-6.6	3.6	4.0	50 30	30	30	30	30	30
PS Acid	-13.6 4.9	-2.4	13.4	-2.6	-3.4	3.7	50 30	30	30	30	30	30
EVE Acid	-6.7 0.3	-5.6	6.8	-4.5	10.4	-0.6	50 30	30	30	30	30	30
Perfluoro-4-ethylcyclohexanesulfonic acid	-3.9 7.8	-4.7	2.0	-8.3	-4.4	11.4	50 30	30	30	30	30	30
Perfluoroheptanesulfonic acid	-0.9 10.4	-7.6	8.5	-7.1	-5.2	1.9	50 30	30	30	30	30	30
6:2 Fluorotelomer sulfonic acid	9.3 +++++	-1.8	3.5	-20.1	9.1	+++++	50	30	30	30	30	
Perfluorooctanoic acid	4.6 7.3	-6.6	8.1	-13.8	-0.2	0.7	50 30	30	30	30	30	30
TAF	-0.9 3.9	-4.0	-4.1	-2.1	5.7	1.5	50 30	30	30	30	30	30
Perfluorooctanesulfonic acid	14.5 4.1	-4.1	-6.9	-7.7	-2.6	2.7	50 30	30	30	30	30	30
Perfluorononanoic acid	12.4 -3.6	-2.2	4.8	-9.4	-2.5	0.6	50 30	30	30	30	30	30
7:3 FTCA	12.0 +++++	-3.0	-6.2	-2.2	-0.7	+++++	50	30	30	30	30	
8:2 FTUCA	7.5 +++++	-2.6	7.2	-9.1	-3.0	+++++	50	30	30	30	30	
8:2 FTCA	-5.0 +++++	-13.5	11.4	-1.5	8.6	+++++	50	30	30	30	30	
9Cl-PF3ONS	2.5 7.8	-15.8	3.5	-7.0	-3.5	12.4	50 30	30	30	30	30	30
Perfluorononanesulfonic acid	1.9 2.9	-9.7	3.1	-3.0	5.3	-0.5	50 30	30	30	30	30	30
Perfluorodecanoic acid	28.4 -5.6	8.2	-0.8	-11.2	-5.4	-13.6	50 30	30	30	30	30	30
8:2 Fluorotelomer sulfonic acid	9.5 +++++	-4.3	-0.9	0.9	-5.2	+++++	50	30	30	30	30	
Perfluorooctanesulfonamide	12.5 2.8	3.0	-3.6	-6.1	-1.3	-7.2	50 30	30	30	30	30	30

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
NMeFOSAA	-5.7 +++++	-1.2	2.9	0.5	3.4	+++++	50	30	30	30	30	
Perfluorodecanesulfonic acid	13.4 0.5	-4.0	-3.0	-9.8	3.9	-0.9	50 30	30	30	30	30	30
Perfluoroundecanoic acid	1.4 2.7	-6.2	4.9	-6.8	1.5	2.5	50 30	30	30	30	30	30
NEtFOSAA	1.6 +++++	-8.5	6.8	-3.2	3.3	+++++	50	30	30	30	30	
10:2 FTUCA	0.4 +++++	5.5	4.4	-8.0	1.2	-3.5	50	30	30	30	30	30
11Cl-PF3OUdS	-2.6 3.9	-7.5	0.7	-2.9	2.7	5.7	50 30	30	30	30	30	30
10:2 FTCA	-25.1 -2.5	0.9	5.8	10.3	12.4	-1.7	50 30	30	30	30	30	30
Perfluorododecanoic acid	9.4 -1.8	2.6	5.4	-7.9	-4.2	-3.4	50 30	30	30	30	30	30
NMeFOSE	-3.9 3.4	1.7	5.7	-6.1	3.3	-4.1	50 30	30	30	30	30	30
10:2 FTS	-7.1 +++++	22.0	-9.4	2.3	-7.8	+++++	50	30	30	30	30	
NMeFOSA	30.0 +++++	-10.0	-5.4	-13.0	-1.7	+++++	50	30	30	30	30	
NEtFOSE	-2.5 -4.3	-3.7	8.5	-1.6	8.7	-5.1	50 30	30	30	30	30	30
Perfluorododecanesulfonic acid	12.9 -0.6	-3.7	2.6	-11.9	-1.2	1.9	50 30	30	30	30	30	30
NEtFOSA	5.9 +++++	5.3	-4.3	-6.3	2.7	-3.3	50	30	30	30	30	30
Perfluorotridecanoic acid	6.1 -4.7	5.0	7.3	-8.3	3.4	-8.7	50 30	30	30	30	30	30
Perfluorotetradecanoic acid	-0.2 -5.7	3.1	12.5	-0.8	-2.9	-6.0	50 30	30	30	30	30	30
Perfluorohexadecanoic acid	18.2 -6.9	8.7	5.8	-1.3	-9.2	-15.3	50 30	30	30	30	30	30
Perfluorooctadecanoic acid	-3.3 1.0	9.2	7.9	-5.1	-3.3	-6.5	50 30	30	30	30	30	30
13C4 PFBA	1.4 -2.6	2.2	3.7	-1.7	-0.4	-2.6	30 30	30	30	30	30	30

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
13C5 PFPeA	-4.2 -0.8	-3.1	2.8	-0.6	5.5	0.4	30 30	30	30	30	30	30
13C3 PFBS	-2.7 -2.8	-4.5	1.1	-2.8	11.3	0.4	30 30	30	30	30	30	30
M2-4:2 FTS	-1.7 +++++	0.7	5.5	1.7	-6.3	+++++	30	30	30	30	30	
13C5 PFHxA	1.8 -7.7	0.2	5.9	2.6	-2.2	-0.6	30 30	30	30	30	30	30
13C3 HFPO-DA	-9.8 13.3	-3.8	-4.0	13.8	-6.5	-3.1	30 30	30	30	30	30	30
13C3 PFHxS	-5.9 -8.9	5.6	1.0	4.1	8.2	-4.0	30 30	30	30	30	30	30
13C4 PFHpA	-1.1 -11.6	9.5	4.9	4.6	3.6	-9.9	30 30	30	30	30	30	30
13C2-2H-Perfluoro-2-octenoic acid	-7.9 -4.9	2.4	12.6	1.7	0.4	-4.3	30 30	30	30	30	30	30
13C2-2-Perfluorohexylethanoic acid	-5.2 +++++	2.7	9.3	1.2	-7.9	+++++	30	30	30	30	30	
M2-6:2 FTS	-4.2 +++++	6.3	4.4	7.0	-13.5	+++++	30	30	30	30	30	
13C8 PFOA	0.3 -9.6	6.6	3.6	5.8	2.1	-8.8	30 30	30	30	30	30	30
13C8 PFOS	3.9 -6.2	4.9	2.9	-0.9	-0.3	-4.3	30 30	30	30	30	30	30
13C9 PFNA	9.5 -4.9	7.0	1.3	-1.1	-3.2	-8.6	30 30	30	30	30	30	30
13C2-2H-Perfluoro-2-decenoic acid	-1.5 +++++	3.3	-5.4	4.8	-1.2	+++++	30	30	30	30	30	
13C2-2-Perfluorooctylethanoic acid	4.7 +++++	0.8	0.5	-1.8	-4.2	+++++	30	30	30	30	30	
13C6 PFDA	0.9 -5.5	-1.2	-4.0	2.7	7.2	-0.1	30 30	30	30	30	30	30
M2-8:2 FTS	2.6 +++++	-4.0	2.4	-8.0	6.9	+++++	30	30	30	30	30	
13C8 FOSA	-5.6 -2.6	-1.0	-3.6	3.4	6.5	2.9	30 30	30	30	30	30	30
d3-NMeFOSAA	-1.1 +++++	-4.2	-3.7	1.9	7.1	+++++	30	30	30	30	30	

FORM VI
PFAS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73309-1 Analy Batch No.: 226473

SDG No.:

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/22/2022 15:12 Calibration End Date: 02/22/2022 16:18 Calibration ID: 35710

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
13C7 PFUnA	8.7 -11.3	8.6	-3.5	0.0	4.2	-6.8	30 30	30	30	30	30	30
d5-NEtFOSAA	2.7 +++++	2.6	-7.7	0.9	1.5	+++++	30	30	30	30	30	
13C2-2H-Perfluoro-2-dodecenoic acid	-1.7 +++++	-1.7	-2.0	5.5	0.7	-0.8	30	30	30	30	30	30
13C2-2-Perfluorodecylethanoic acid	-9.8 -3.4	2.1	-0.8	4.5	5.2	2.3	30 30	30	30	30	30	30
13C2-PFDoDA	-3.3 -0.8	-3.5	-5.8	6.3	8.3	-1.1	30 30	30	30	30	30	30
d7-N-MeFOSE-M	-1.2 6.5	-4.1	-6.0	-0.9	2.2	3.4	30 30	30	30	30	30	30
d3-NMePFOSA	-1.9 +++++	-1.1	-2.8	1.5	4.3	+++++	30	30	30	30	30	
d9-N-EtFOSE-M	-2.8 11.3	-2.5	-3.1	-5.2	-2.8	5.1	30 30	30	30	30	30	30
d5-NEtPFOSA	-1.2 +++++	-1.0	-1.7	-0.7	3.0	1.6	30	30	30	30	30	30
13C2 PFTeDA	-0.7 5.4	-9.6	-10.6	-3.1	10.0	8.6	30 30	30	30	30	30	30

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d
Lims ID: IC CAL1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 22-Feb-2022 15:12:04 ALS Bottle#: 20002 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL1
Misc. Info.: Plate: 1 Rack: 1 410-0050930-001
Operator ID: US19_USR_INS20260 Instrument ID: 30733
Sublist: chrom-PFAS_30733_XList_2*sub1

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 10:04:16 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1604

First Level Reviewer: fellenbauma Date: 22-Feb-2022 20:22:34
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										M
175.00 > 97.00	1.492	1.481	0.011	0.375	1927	0.2039		102	78.0	M
1 PPF Acid										M
163.00 > 119.00	1.843	1.838	0.005	0.463	14686	0.1936		96.8	173	M
96 PFMOAA										M
179.00 > 85.00	2.956	2.948	0.008	0.742	8983	0.1939		96.9	113	M
100 R-PSDA										M
441.00 > 241.00	3.956	3.955	0.001	0.863	699	0.2221		111	45.3	M
99 R-EVE										
405.00 > 217.00	3.965	3.957	0.008	0.996	2925	0.2463		123	153	
105 Hydrolyzed PSDA										M
439.00 > 343.00	3.973	3.972	0.001	0.867	2939	0.1856		92.8	174	M
2 Perfluorobutanoic acid										M
213.00 > 169.00	3.982	3.977	0.005	1.000	36189	0.2493		125	763	M
* 4 13C3-PFBA										
216.00 > 172.00	3.982	3.979	0.003		681969	5.00			1688	
D 3 13C4 PFBA										
217.00 > 172.00	3.982	3.977	0.005	1.000	1539871	10.1		101	115416	
102 PMPA										
229.00 > 185.00	4.109	4.105	0.004	1.032	12580	0.1874		93.7	222	
5 PFPrS										
249.00 > 99.00	4.171	4.165	0.006	1.048	6406	0.1813		99.0	464	
103 NVHOS										
297.00 > 135.00	4.203	4.199	0.004	0.917	5745	0.1987		99.3	400	
6 PFECA F										
229.00 > 85.00	4.224	4.225	-0.001	1.061	27883	0.2017		101	11938	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 PFO2HxA										
245.00 > 85.00	4.414	4.411	0.003	1.109	9199	0.1973		98.7	637	
7 Perfluoropentanoic acid										
263.00 > 219.00	4.525	4.522	0.003	0.998	27438	0.2107		105	886	
D 8 13C5 PFPeA										
268.00 > 223.00	4.535	4.529	0.006	1.139	1255168	9.58		95.8	69746	
9 3:3 FTCA										
241.00 > 177.00	4.525	4.525	0.0	0.998	2172	0.2582		129	154	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.583	4.579	0.004	1.000	20377	0.1876	Target=3.22	106	1556	
299.00 > 99.00	4.583	4.579	0.004	1.000	6902		2.95(1.61-4.83)	106	516	
D 11 13C3 PFBS										
302.00 > 80.00	4.583	4.580	0.003	1.151	944636	9.10		97.3	72585	
91 PEPA										M
279.00 > 235.00	4.638	4.635	0.003	1.165	6013	0.2126		106	245	M
12 PFECA A										
279.00 > 85.00	4.663	4.658	0.005	1.018	18921	0.1962		98.1	1551	
13 PES										
315.00 > 135.00	4.749	4.746	0.003	1.036	59419	0.1769		99.4	4691	
14 PFECA B										
201.00 > 85.00	4.881	4.877	0.004	1.065	25936	0.2190	Target=1.44	109	1419	
295.00 > 201.00	4.881	4.877	0.004	1.065	17885		1.45(0.72-2.15)	109	1297	
15 4:2 FTS										
327.00 > 307.00	4.910	4.907	0.003	1.000	12118	0.1874	Target=1.53	100	862	
327.00 > 81.00	4.910	4.907	0.003	1.000	11074		1.09(0.77-2.30)	100	738	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.910	4.907	0.003	0.860	194000	9.18		98.3	13835	
17 Perfluorohexanoic acid										RM
313.00 > 269.00	4.942	4.946	-0.004	0.998	29728	0.2119	Target=16.07	106	1063	RM
313.00 > 119.00	4.942	4.946	-0.004	0.998	1187		25.04(8.04-24.11)	106	79.7	M
$ 18 13C2 PFHxA										
315.00 > 270.00	4.952	4.948	0.004	0.868	1202622	NC			86617	
D 19 13C5 PFHxA										
318.00 > 273.00	4.952	4.948	0.004	0.868	1672761	10.2		102	72382	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.962	4.961	0.001	1.083	16554	0.1737	Target=3.46	92.6	1192	
349.00 > 99.00	4.962	4.961	0.001	1.083	5287		3.13(1.73-5.19)	92.6	385	
93 PFO3OA										
311.00 > 85.00	5.010	5.005	0.005	1.258	9607	0.2184		109	711	
21 HFPO-DA										
329.00 > 285.00	5.081	5.074	0.007	1.000	9907	0.2376		119	564	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.081	5.077	0.004	0.890	217980	9.02		90.2	16791	
106 Hydro-PS Acid										M
463.00 > 263.00	5.348	5.307	0.041	1.167	38130	0.2007		100	59.3	M
97 Hydro-EVE Acid										
427.00 > 283.00	5.296	5.286	0.010	1.330	40277	0.2069		103	54.6	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
94 R-PSDCA										
397.00 > 217.00	5.296	5.289	0.007	1.156	50502	0.2102		105	3496	
23 Perfluoroheptanoic acid										M
363.00 > 319.00	5.338	5.335	0.003	1.000	39184	0.2144	Target=3.65	107	1230	
363.00 > 169.00	5.338	5.335	0.003	1.000	9648		4.06(1.82-5.47)	107	691	M
26 Perfluorohexanesulfonic acid										M
399.00 > 80.00	5.338	5.335	0.003	1.000	21304	0.2050	Target=3.59	112	68.9	
399.00 > 99.00	5.338	5.335	0.003	1.000	5238		4.07(1.79-5.38)	112	10.0	M
D 25 13C3 PFHxS										
402.00 > 80.00	5.338	5.335	0.003	0.935	904480	8.90		94.1	66633	
D 24 13C4 PFHpA										
367.00 > 322.00	5.338	5.336	0.002	0.935	1809071	9.89		98.9	79114	
27 DONA										
377.00 > 251.00	5.384	5.381	0.003	1.009	42865	0.1860		98.4	3400	
98 PFECA G										
379.00 > 185.00	5.401	5.399	0.002	1.356	46568	0.2087		104	3820	
28 5:3 FTCA										M
341.00 > 237.00	5.417	5.414	0.003	1.015	8067	0.2212	Target=50.84	111	456	M
339.00 > 295.00	5.414	5.414	0.0	0.000	0		0.00(25.42-76.26)	111		
29 6:2 FTUCA										
357.00 > 293.00	5.442	5.438	0.004	1.000	46090	0.2331		117	3591	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.442	5.439	0.003	0.954	1455442	9.21		92.1	115882	
32 6:2 FTCA										
377.00 > 293.00	5.459	5.456	0.003	1.000	3428	0.2363		118	280	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.459	5.456	0.003	0.957	137545	9.48		94.8	10845	
95 PFO4DA										
377.00 > 85.00	5.512	5.513	-0.001	1.384	9843	0.1931		96.6	547	
104 PS Acid										
443.00 > 147.00	5.562	5.552	0.010	1.214	10422	0.1727		86.4	838	
90 EVE Acid										
407.00 > 263.00	5.571	5.573	-0.002	1.399	27784	0.1866		93.3	2204	
33 PFECHS										
461.00 > 381.00	5.650	5.640	0.010	1.058	30180	0.1776	Target=1.94	96.1	2242	
461.00 > 99.00	5.640	5.640	0.0	1.057	15248		1.98(0.97-2.91)	96.1	1100	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.688	5.685	0.003	1.066	18313	0.1887	Target=3.50	99.1	1372	
449.00 > 99.00	5.688	5.685	0.003	1.066	6444		2.84(1.75-5.24)	99.1	476	
34 6:2 FTS										
427.00 > 407.00	5.688	5.685	0.003	0.998	7814	0.2073	Target=1.31	109	586	
427.00 > 81.00	5.688	5.685	0.003	0.998	6802		1.15(0.65-1.96)	109	499	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.698	5.686	0.012	0.998	79421	9.10		95.8	5802	
40 Perfluorooctanoic acid										M
413.00 > 369.00	5.707	5.704	0.003	1.000	32309	0.2092	Target=2.48	105	2341	M
413.00 > 169.00	5.707	5.704	0.003	1.000	13530		2.39(1.24-3.72)	105	6828	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 38 13C2 PFOA										
415.00 > 370.00	5.707	5.704	0.003		760501	5.00			56388	
D 37 13C8 PFOA										
421.00 > 376.00	5.707	5.704	0.003	1.000	2020047	10.0		100	149657	
$ 39 13C4 PFOA										
417.00 > 372.00	5.707	5.704	0.003	1.000	1934933	NC			143977	
101 TAF										
443.00 > 85.00	5.948	5.947	0.001	1.494	9007	0.1981		99.1	719	
43 Perfluorooctanesulfonic acid										M
499.00 > 80.00	6.027	6.022	0.005	1.000	20035	0.2120	Target=4.38	115	34.4	M
499.00 > 99.00	6.018	6.022	-0.004	0.998	4380		4.57(2.19-6.57)	115	11.2	M
* 42 13C4 PFOS										
503.00 > 80.00	6.027	6.023	0.004		404573	4.78			22736	
D 41 13C8 PFOS										
507.00 > 80.00	6.027	6.023	0.004	1.000	848072	9.94		104	32225	
44 Perfluorononanoic acid										
463.00 > 419.00	6.046	6.041	0.005	1.000	32374	0.2247	Target=4.84	112	1447	
463.00 > 169.00	6.036	6.041	-0.005	0.998	6671		4.85(2.42-7.25)	112	359	
D 45 13C9 PFNA										
472.00 > 427.00	6.046	6.041	0.005	1.003	1555830	11.0		110	88054	
46 7:3 FTCA										
441.00 > 337.00	6.141	6.144	-0.003	1.125	10159	0.2241		112	808	
47 8:2 FTUCA										
457.00 > 393.00	6.150	6.150	0.0	0.999	44965	0.2149		107	3623	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.159	6.155	0.004	0.970	1962937	9.85		98.5	155632	
49 8:2 FTCA										
477.00 > 393.00	6.174	6.169	0.005	1.000	2494	0.1900		95.0	218	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.174	6.169	0.005	0.973	139896	10.5		105	11622	
51 9ClFOS										
531.00 > 351.00	6.197	6.193	0.004	1.028	30753	0.1907		103	1868	
52 Perfluorononanesulfonic acid										M
549.00 > 80.00	6.319	6.321	-0.002	1.048	17337	0.1957	Target=4.28	102	1271	M
549.00 > 99.00	6.319	6.321	-0.002	1.048	4353		3.98(2.14-6.42)	102	322	
D 54 13C6 PFDA										
519.00 > 474.00	6.347	6.348	-0.001	1.000	1815906	10.1		101	97143	
* 55 13C2 PFDA										
515.00 > 470.00	6.347	6.346	0.001		904100	5.00			48641	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.347	6.344	0.003	1.000	45650	0.2568	Target=10.44	128	1665	
513.00 > 169.00	6.347	6.344	0.003	1.000	4467		10.22(5.22-15.66)	128	326	
56 8:2 FTS										M
527.00 > 507.00	6.347	6.348	-0.001	0.998	8164	0.2098	Target=1.54	109	588	
527.00 > 81.00	6.347	6.348	-0.001	0.998	5876		1.39(0.77-2.31)	109	397	M
D 57 M2-8:2 FTS										
529.00 > 81.00	6.357	6.354	0.003	1.002	48243	9.83		103	3468	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.421	6.419	0.002	1.000	36294	0.2250		112	2546	
D 59 13C8 FOSA										
506.00 > 78.00	6.421	6.425	-0.004	1.012	1605731	9.44		94.4	110825	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.493	6.494	-0.001	1.023	600175	9.89		98.9	41133	
60 NMeFOSAA										M
570.00 > 419.00	6.493	6.497	-0.004	1.000	9334	0.1886	Target=1.64	94.3	3709	M
570.00 > 483.00	6.503	6.497	0.006	1.001	6133		1.52(0.82-2.46)	94.3	22.9	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.594	6.590	0.004	1.094	20118	0.2186	Target=4.07	113	1283	
599.00 > 99.00	6.582	6.590	-0.008	1.092	4634		4.34(2.03-6.10)	113	308	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.617	6.618	-0.001	0.998	34048	0.2029	Target=8.63	101	960	
563.00 > 169.00	6.617	6.618	-0.001	0.998	4525		7.52(4.31-12.94)	101	315	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.629	6.623	0.006	1.161	1646750	NC			81520	
D 65 13C7 PFUnA										
570.00 > 525.00	6.629	6.623	0.006	1.044	1901258	10.9		109	124811	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.640	6.635	0.005	1.046	436365	10.3		103	28840	
67 NEtFOSAA										M
584.00 > 419.00	6.640	6.638	0.002	1.000	7909	0.2033	Target=1.31	102	15.5	M
584.00 > 526.00	6.651	6.638	0.013	1.002	6441		1.23(0.66-1.97)	102	18.4	M
68 10:2 FTUCA										
557.00 > 493.00	6.727	6.723	0.004	1.000	30421	0.2008		100	1991	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.727	6.725	0.002	1.060	1481617	9.83		98.3	94880	
69 11ClFOS										
631.00 > 451.00	6.727	6.725	0.002	1.116	21405	0.1811		97.4	1399	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.739	6.741	-0.002	1.062	67230	9.02		90.2	4299	
71 10:2 FTCA										
577.00 > 493.00	6.727	6.735	-0.008	0.998	2101	0.1497		74.9	139	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.862	6.857	0.005	1.000	27925	0.2188	Target=5.13	109	2025	
613.00 > 169.00	6.862	6.857	0.005	1.000	5832		4.79(2.56-7.69)	109	426	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.862	6.858	0.004	1.081	1253865	9.67		96.7	90220	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.862	6.863	-0.001	1.081	266352	9.88		98.8	9563	
75 10:2 FTS										
627.00 > 607.00	6.872	6.874	-0.002	1.081	4621	0.1791	Target=0.83	92.9	329	
627.00 > 81.00	6.872	6.874	-0.002	1.081	5467		0.85(0.42-1.25)	92.9	397	
77 N-MeFOSE-M										M
616.00 > 59.00	6.872	6.870	0.002	1.001	5471	0.1922		96.1	220	M

Report Date: 23-Feb-2022 10:04:18 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 79 d3-NMePFOSA										
515.00 > 169.00	6.882	6.880	0.002	1.084	170205	9.81		98.1	4655	
78 NMeFOSA										
512.00 > 169.00	6.882	6.880	0.002	1.000	4967	0.2600		130	379	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.026	7.022	0.004	1.107	299568	9.72		97.2	9156	
82 N-EtFOSE-M										M
630.00 > 59.00	7.026	7.027	-0.001	1.000	6078	0.1950		97.5	321	M
80 PFDoS										
699.00 > 80.00	7.036	7.030	0.006	1.167	18545	0.2186		113	1311	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.047	7.042	0.005	1.110	163387	9.88		98.8	11552	
84 N-EtFOSA-M										M
526.00 > 169.00	7.036	7.044	-0.008	0.998	3663	0.2118		106	254	M
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.058	7.057	0.001	1.029	19867	0.2122	Target=4.34	106	1046	
663.00 > 169.00	7.058	7.057	0.001	1.029	4507		4.41(2.17-6.51)	106	322	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.236	7.234	0.002	1.000	19919	0.1996	Target=5.08	99.8	849	
713.00 > 169.00	7.236	7.234	0.002	1.000	3974		5.01(2.54-7.61)	99.8	292	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.236	7.235	0.001	1.140	1087598	9.93		99.3	74184	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.543	7.540	0.003	1.042	26395	0.2364	Target=9.01	118	1710	
813.00 > 169.00	7.543	7.540	0.003	1.042	2725		9.69(4.50-13.51)	118	240	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.777	7.773	0.004	1.075	8989	0.1935	Target=7.79	96.7	1020	
913.00 > 169.00	7.771	7.773	-0.002	1.074	1150		7.82(3.89-11.68)	96.7	131	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- R - Failed Signal Ratio Test

Review Flags
- M - Manually Integrated

Reagents:

PFC_STD_XMOD1_00012 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 10:04:18 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d

Injection Date: 22-Feb-2022 15:12:04 Instrument ID: 30733

Lims ID: IC CAL1

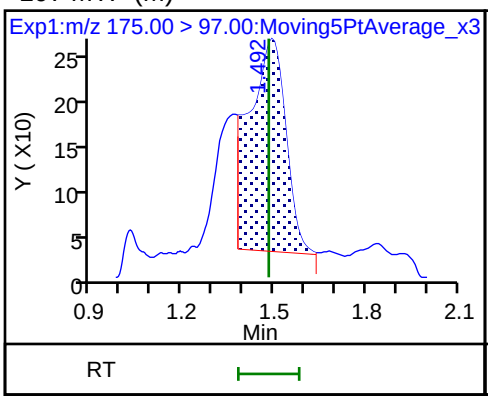
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20002 Worklist Smp#: 1

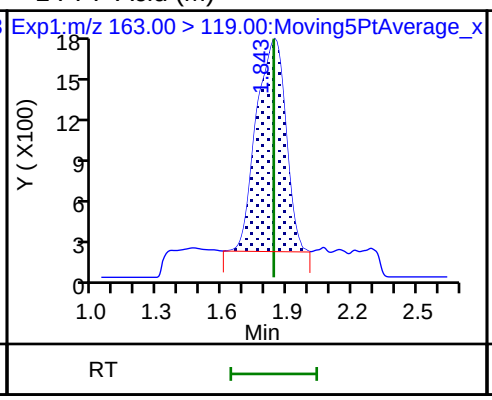
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

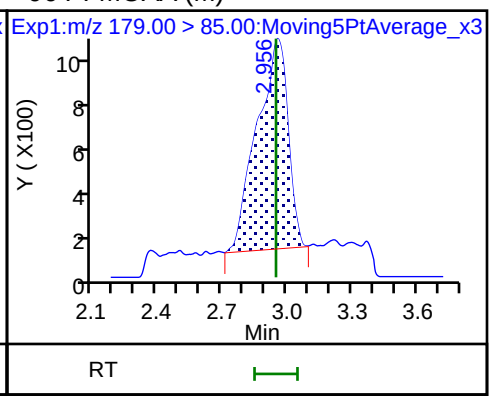
107 MTP (M)



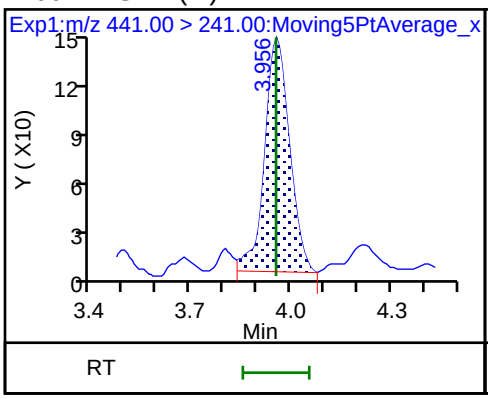
1 PPF Acid (M)



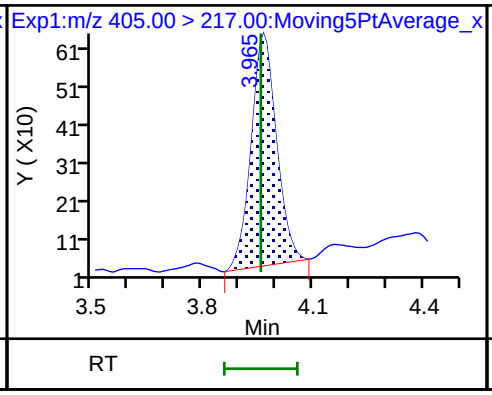
96 PFMOAA (M)



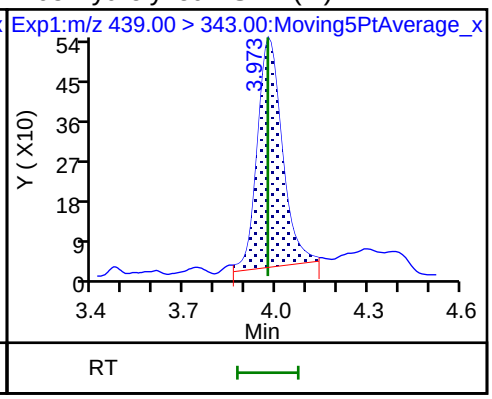
100 R-PSDA (M)



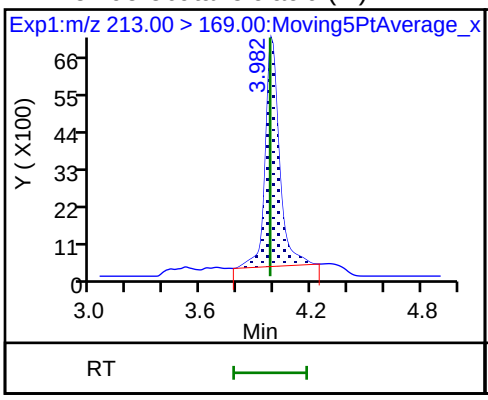
99 R-EVE



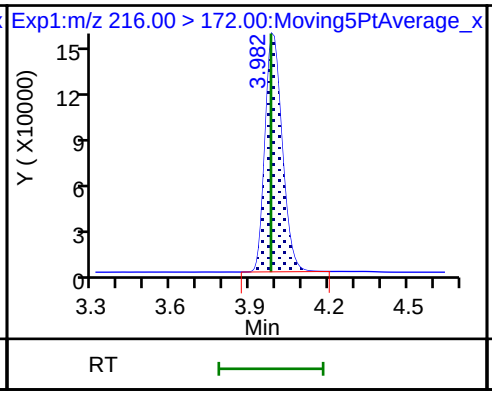
105 Hydrolyzed PSDA (M)



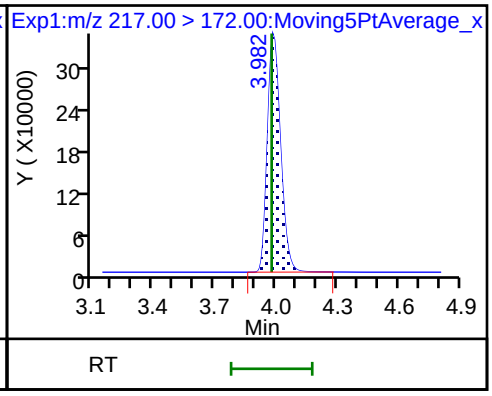
2 Perfluorobutanoic acid (M)



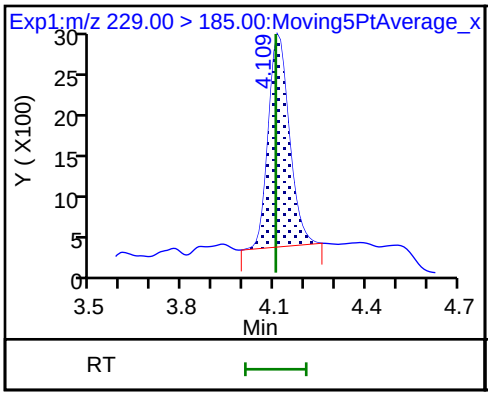
* 4 13C3-PFBA



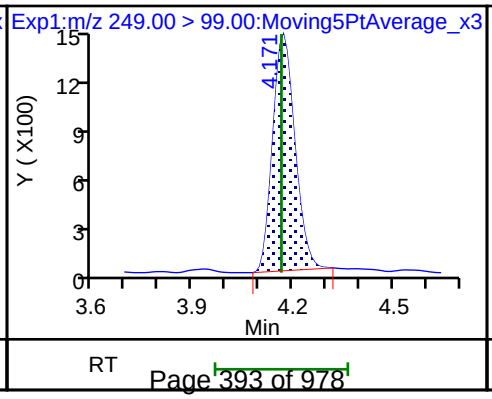
D 3 13C4 PFBA



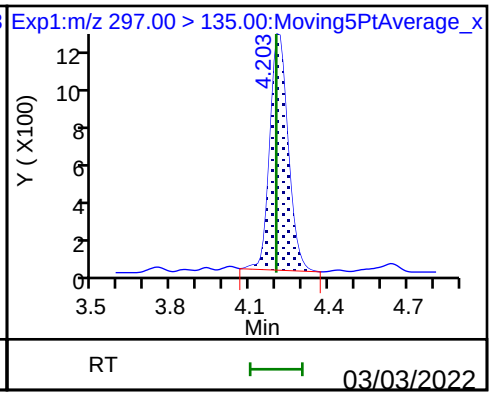
102 PMPA



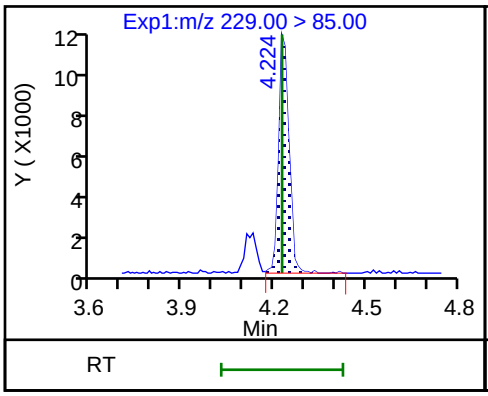
5 PFPrS



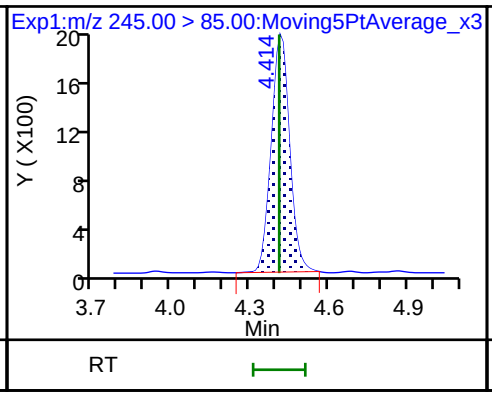
103 NVHOS



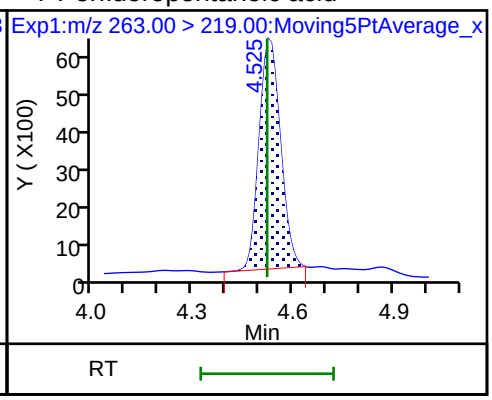
6 PFECA F



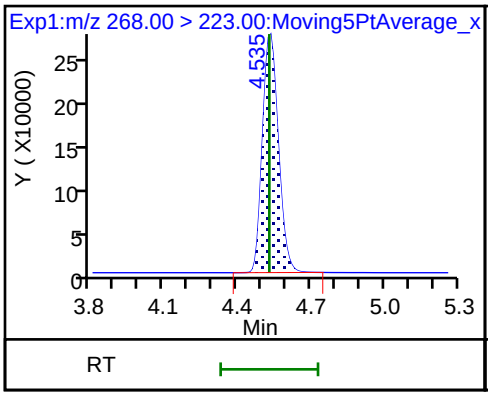
92 PFO2HxA



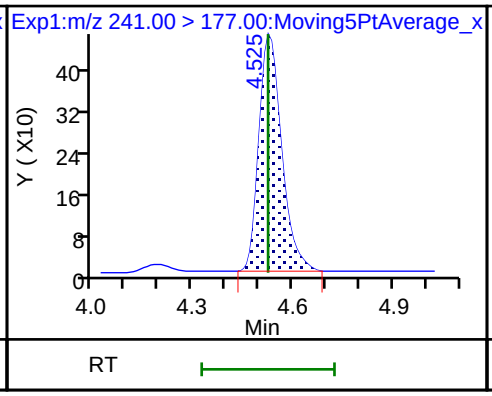
7 Perfluoropentanoic acid



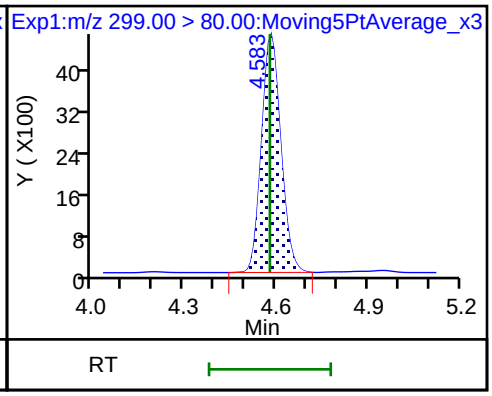
D 8 13C5 PFPeA



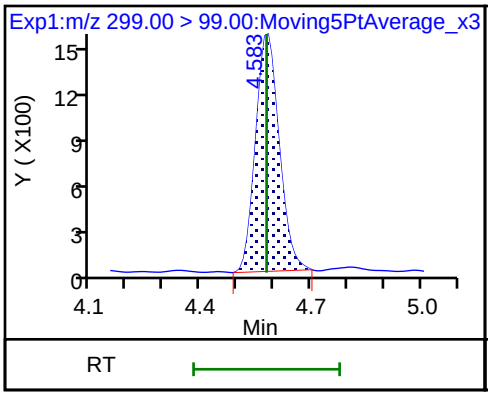
9 3:3 FTCA



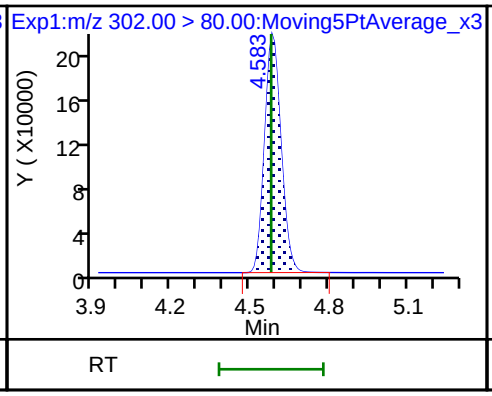
10 Perfluorobutanesulfonic acid



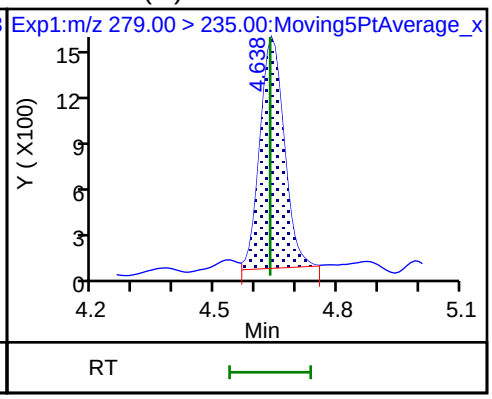
10 Perfluorobutanesulfonic acid



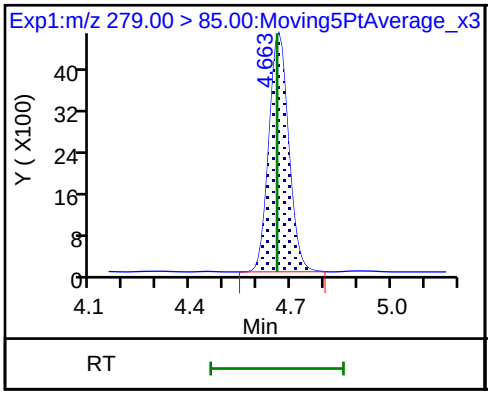
D 11 13C3 PFBS



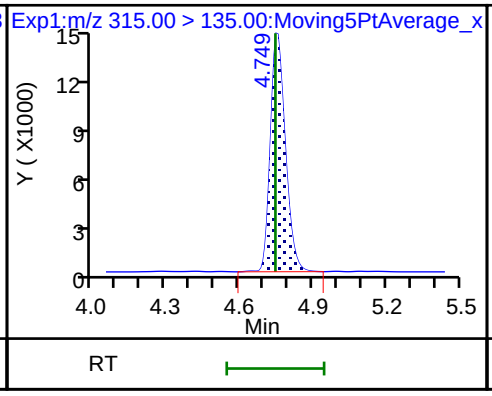
91 PEPA (M)



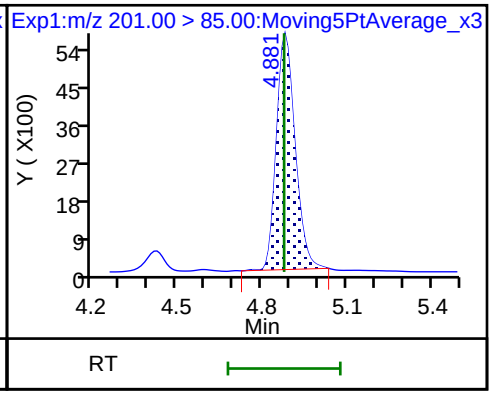
12 PFECA A



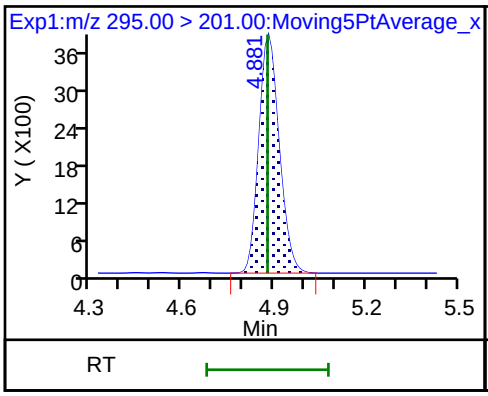
13 PES



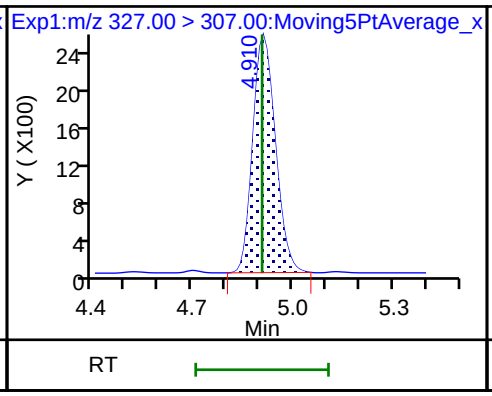
14 PFECA B



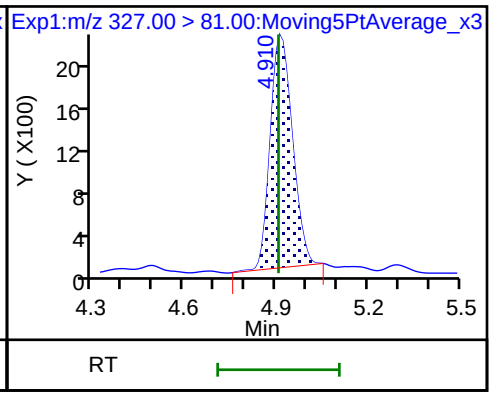
14 PFECA B



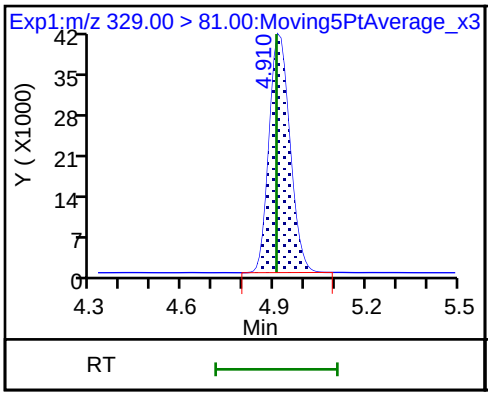
15 4:2 FTS



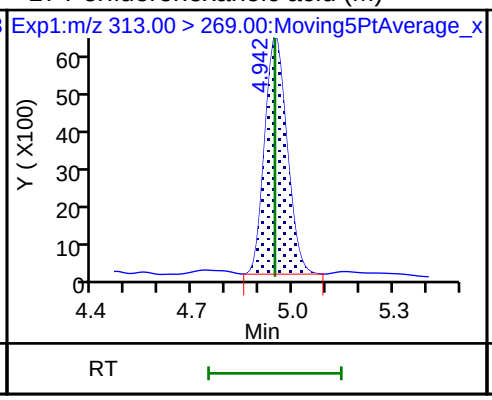
15 4:2 FTS



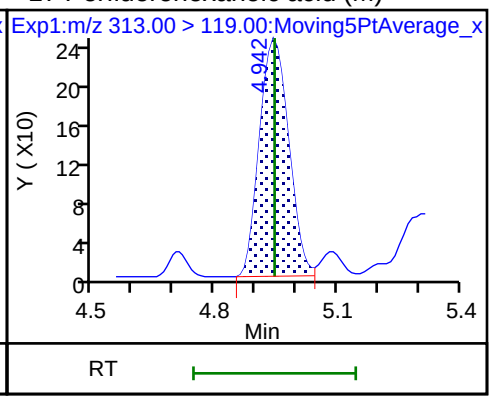
D 16 M2-4:2 FTS



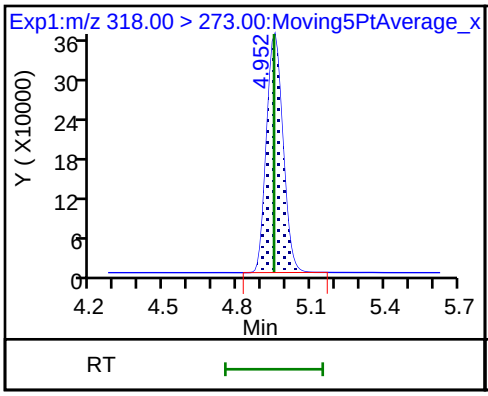
17 Perfluorohexanoic acid (M)



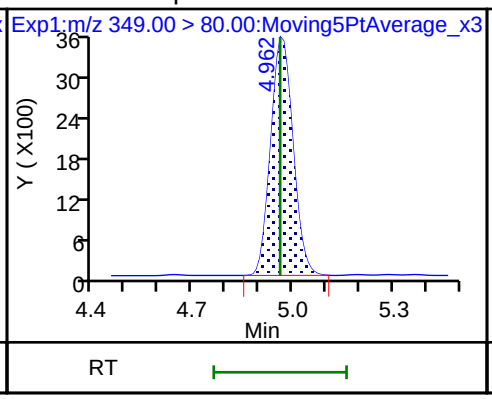
17 Perfluorohexanoic acid (M)



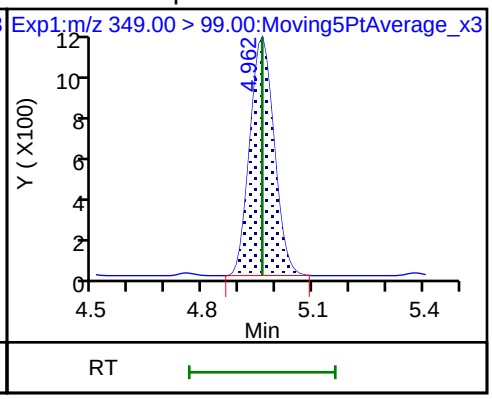
D 19 13C5 PFHxA



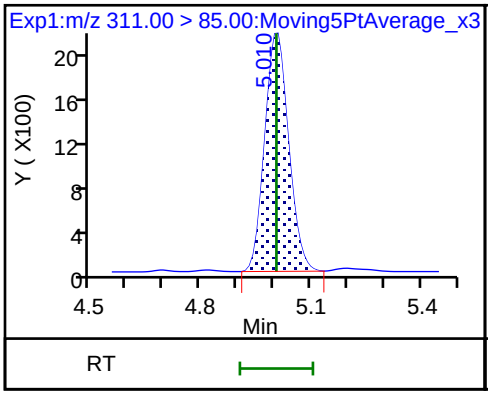
20 Perfluoropentanesulfonic acid



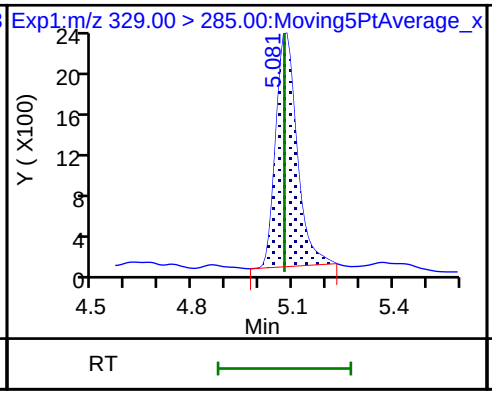
20 Perfluoropentanesulfonic acid



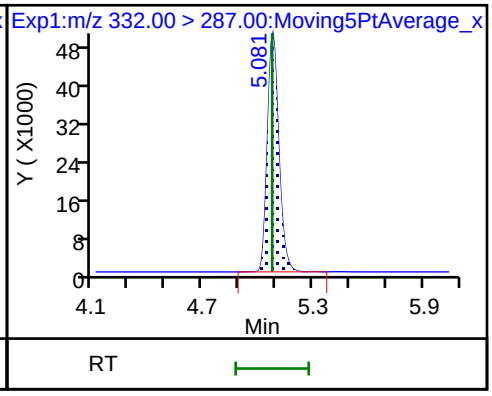
93 PFO3OA



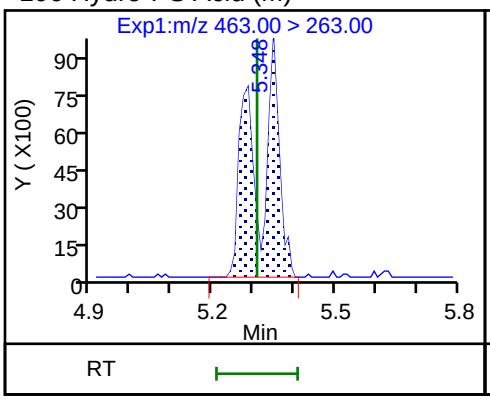
21 HFPO-DA



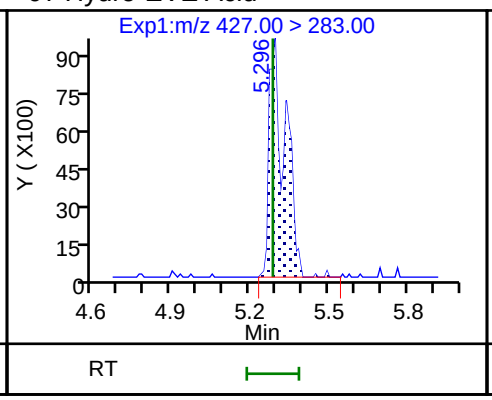
D 22 13C3 HFPO-DA



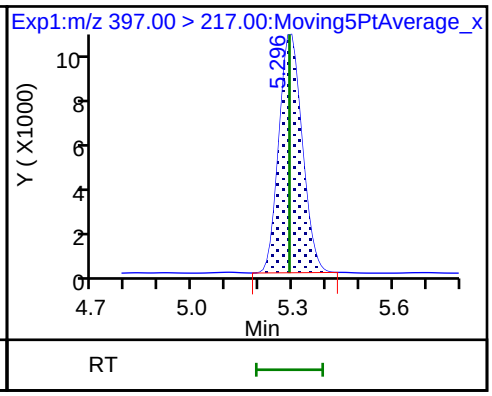
106 Hydro-PS Acid (M)



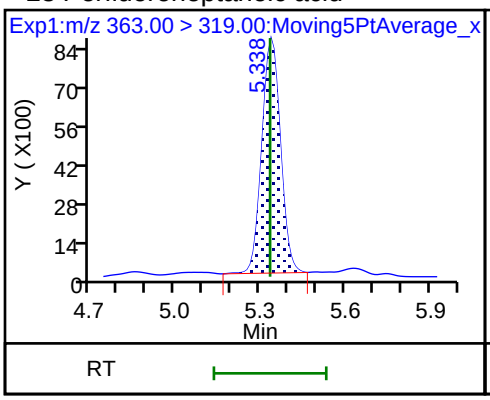
97 Hydro-EVE Acid



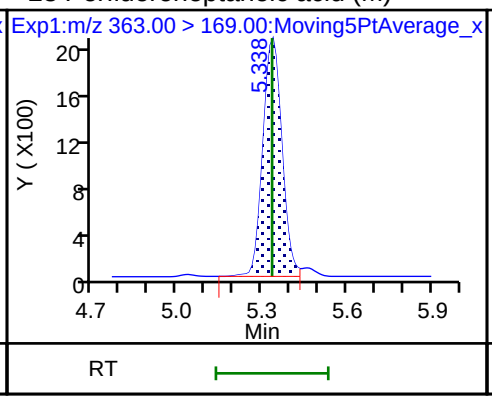
94 R-PSDCA



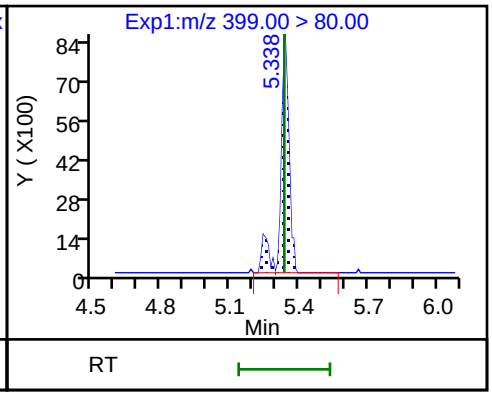
23 Perfluoroheptanoic acid



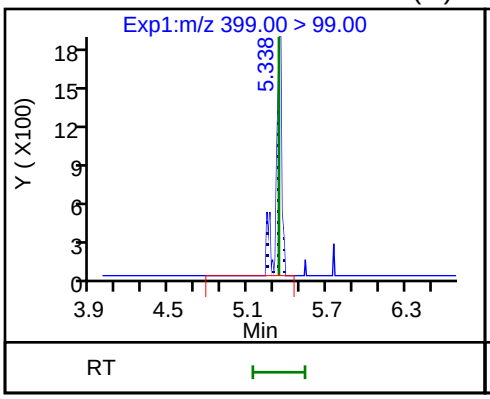
23 Perfluoroheptanoic acid (M)



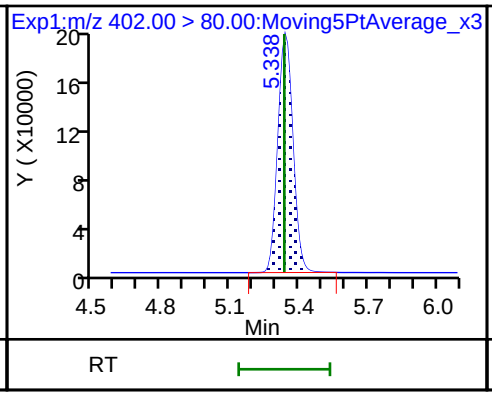
26 Perfluorohexanesulfonic acid



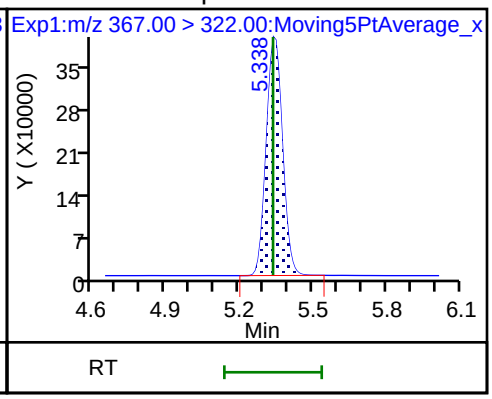
26 Perfluorohexanesulfonic acid (M)



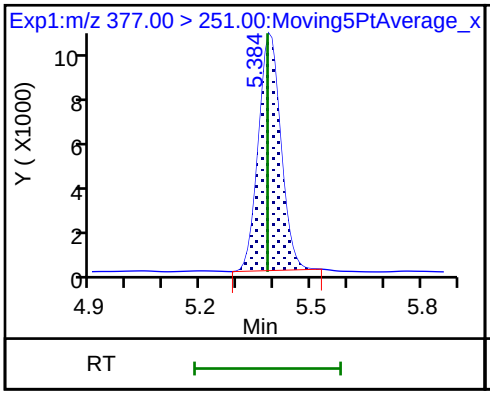
D 25 13C3 PFHxS



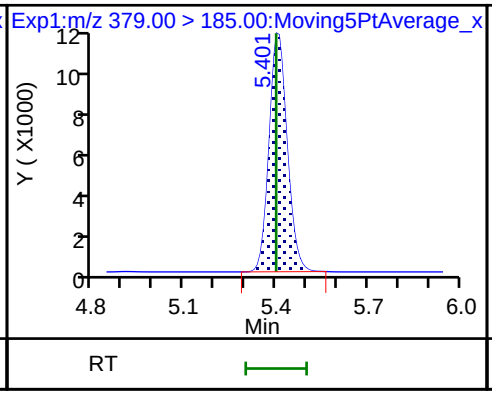
D 24 13C4 PFHpA



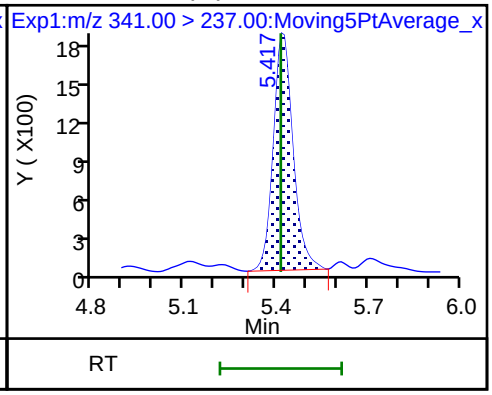
27 DONA



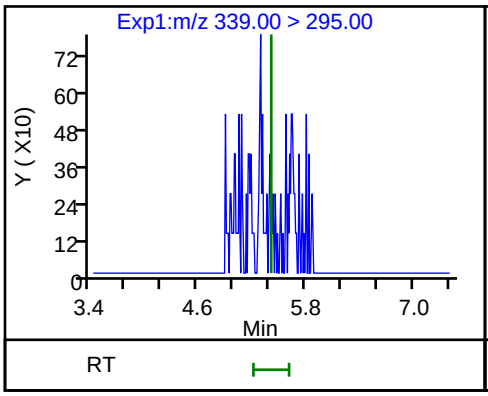
98 PFECA G



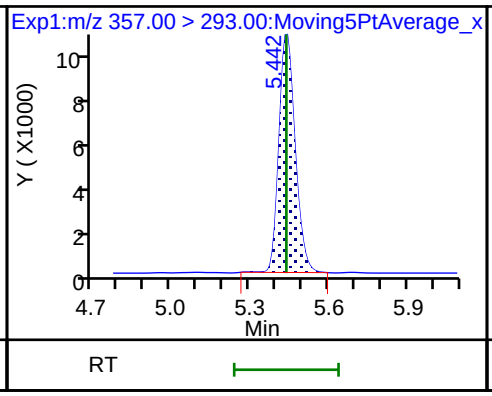
28 5:3 FTCA (M)



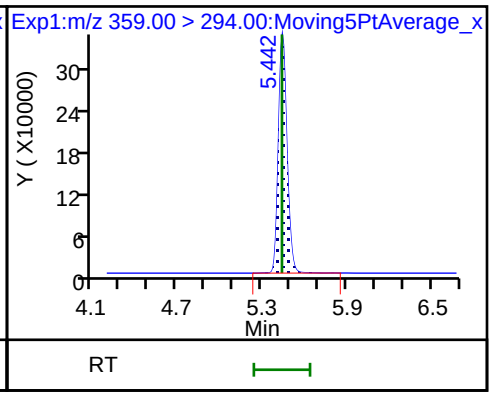
28 5:3 FTCA



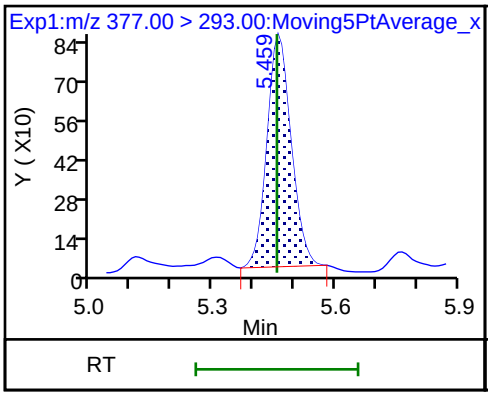
29 6:2 FTUCA



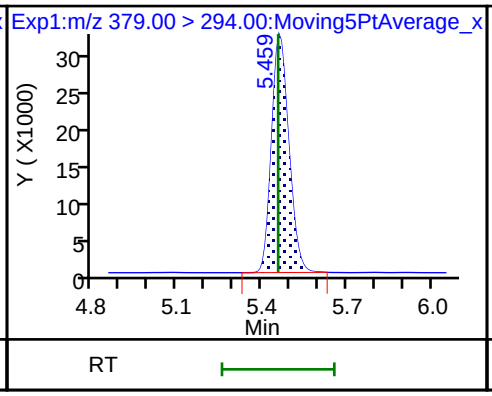
D 30 13C-6:2 FTUCA



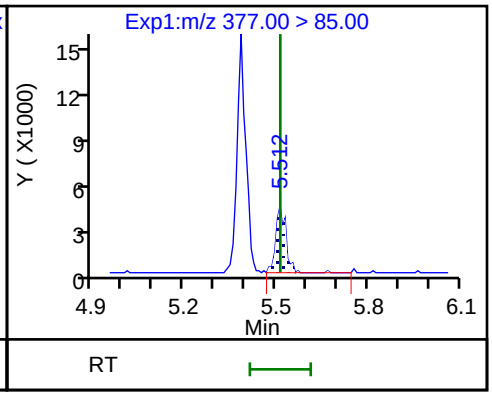
32 6:2 FTCA



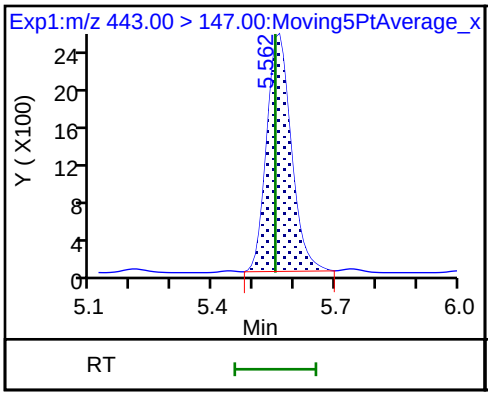
D 31 13C-6:2 FTCA



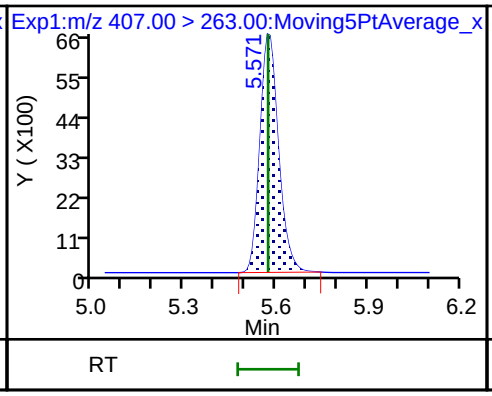
95 PFO4DA



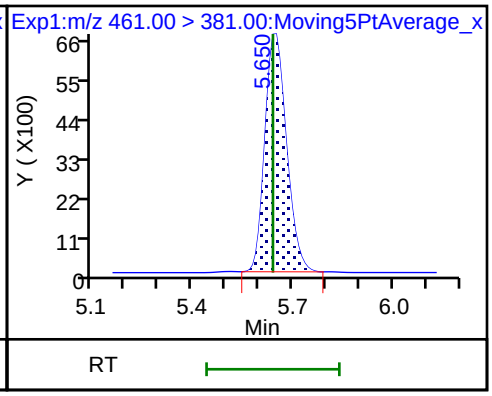
104 PS Acid



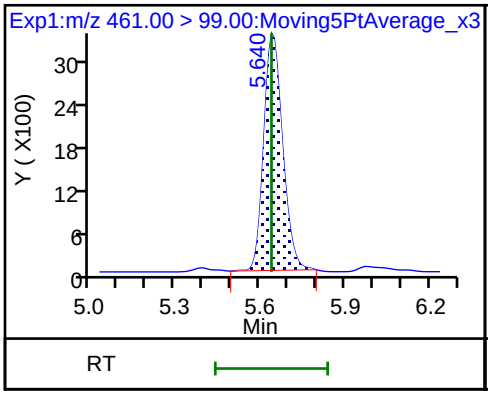
90 EVE Acid



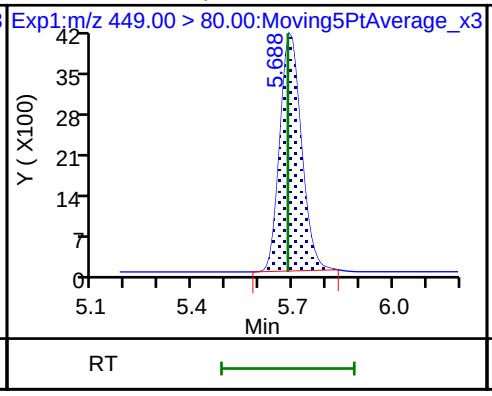
33 PFECHS



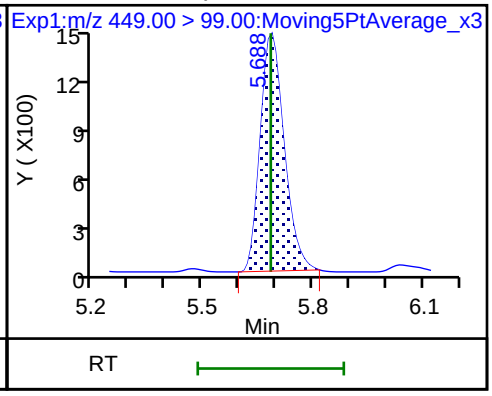
33 PFECHS



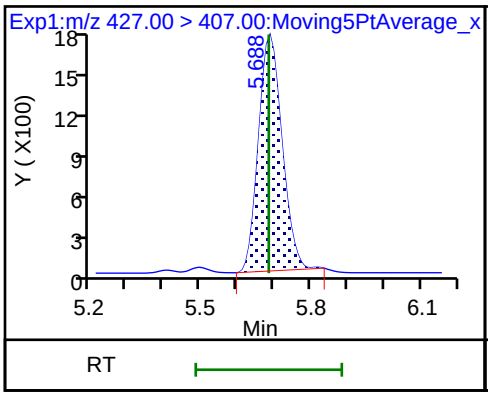
36 Perfluoroheptanesulfonic acid



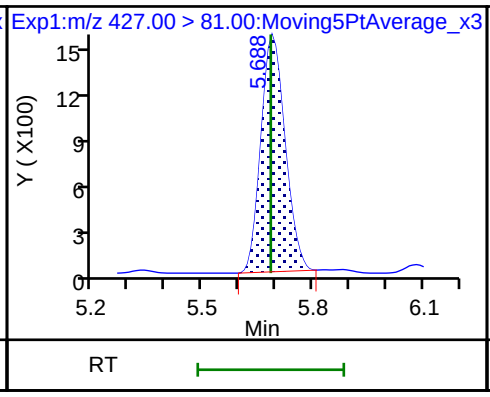
36 Perfluoroheptanesulfonic acid



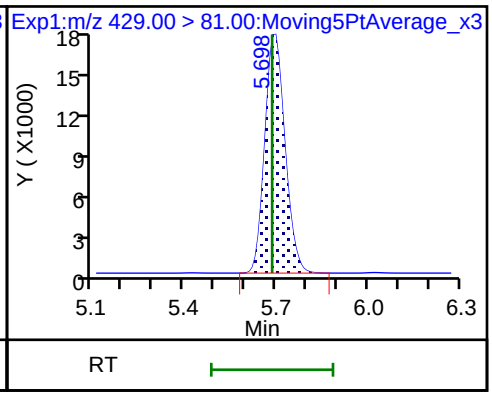
34 6:2 FTS



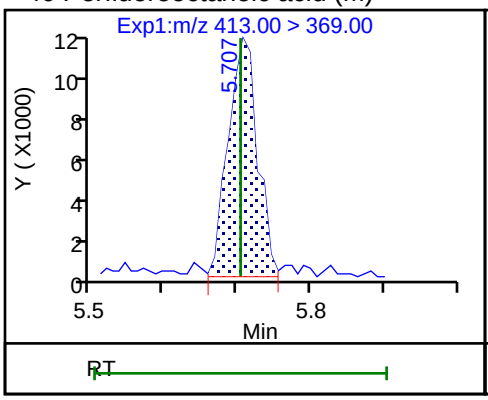
34 6:2 FTS



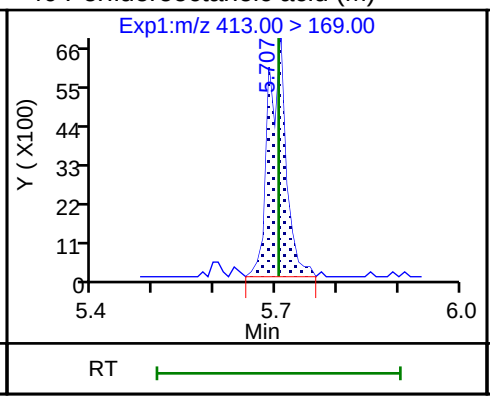
D 35 M2-6:2 FTS



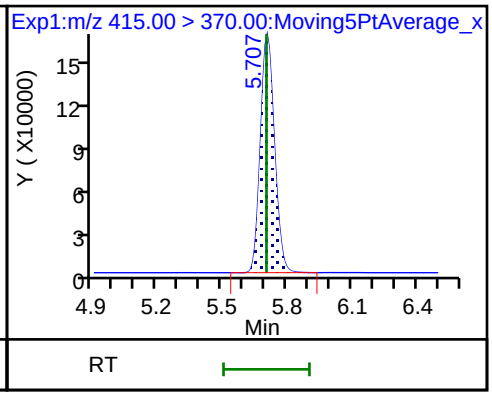
40 Perfluorooctanoic acid (M)



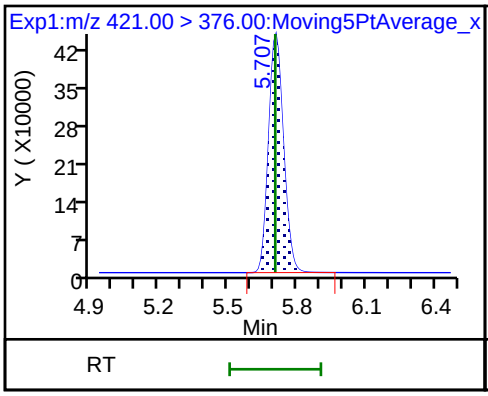
40 Perfluorooctanoic acid (M)



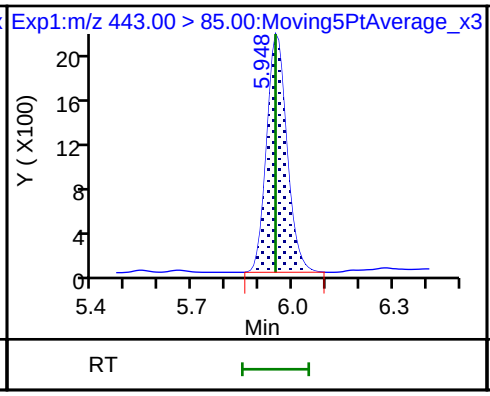
* 38 13C2 PFOA



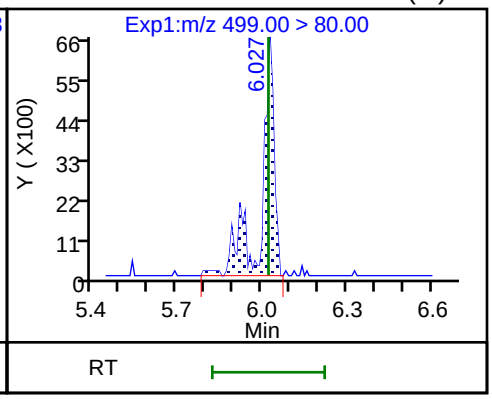
D 37 13C8 PFOA



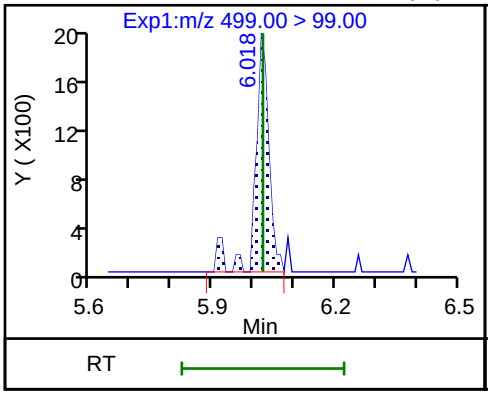
101 TAF



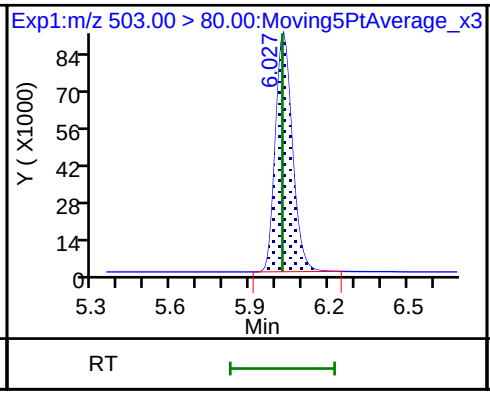
43 Perfluorooctanesulfonic acid (M)



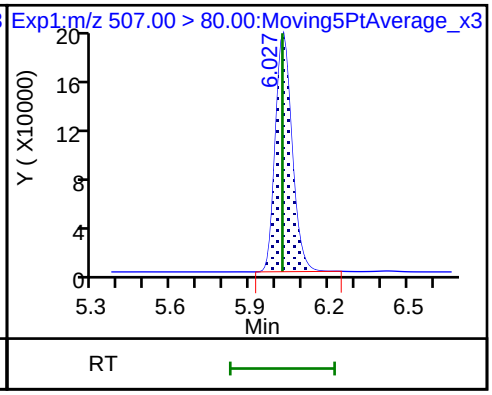
43 Perfluorooctanesulfonic acid (M)



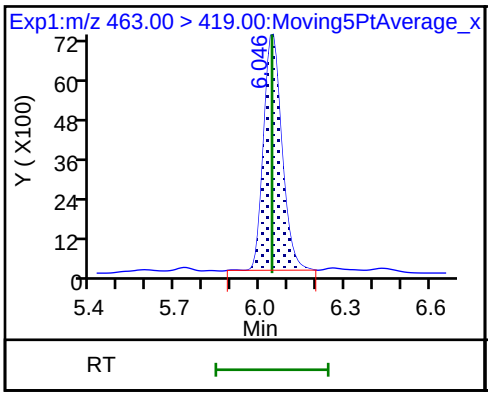
* 42 13C4 PFOS



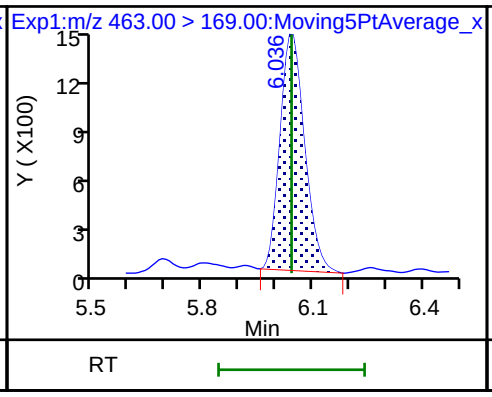
D 41 13C8 PFOS



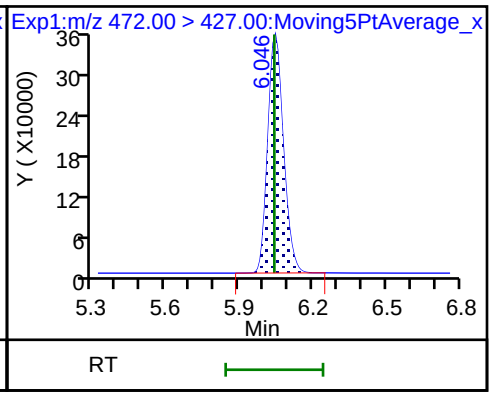
44 Perfluorononanoic acid



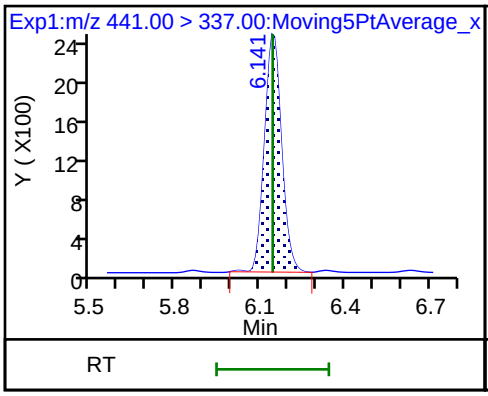
44 Perfluorononanoic acid



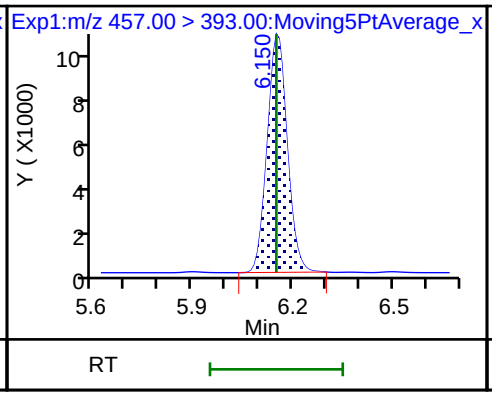
D 45 13C9 PFNA



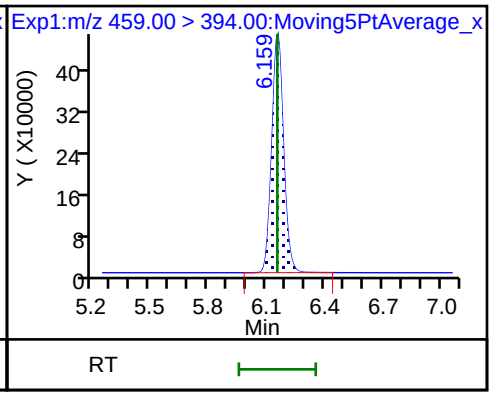
46 7:3 FTCA



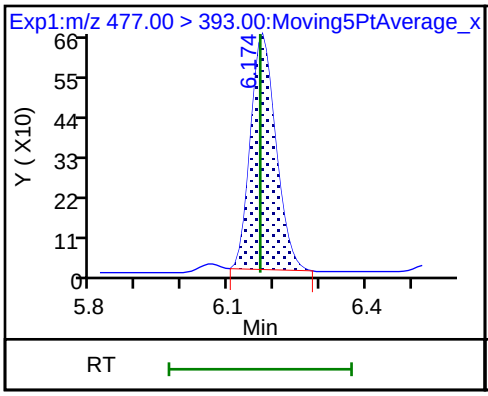
47 8:2 FTUCA



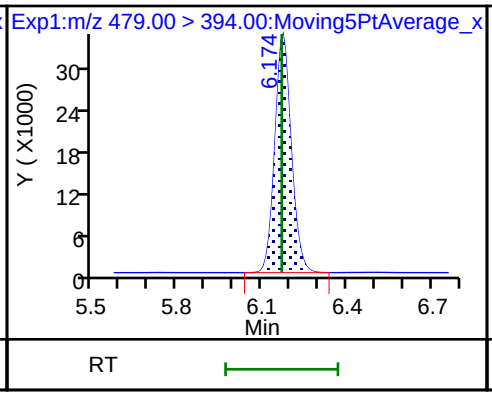
D 48 13C-8:2 FTUCA



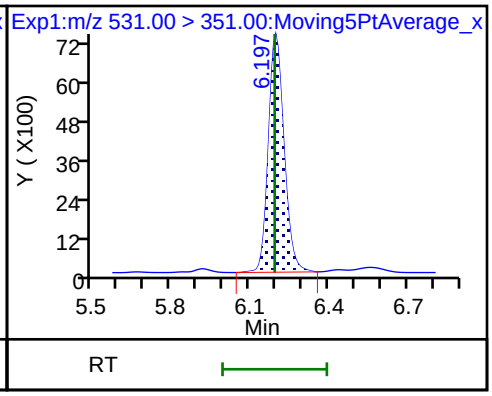
49 8:2 FTCA



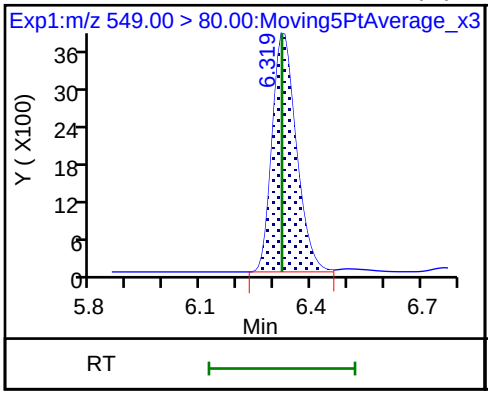
D 50 13C-8:2 FTCA



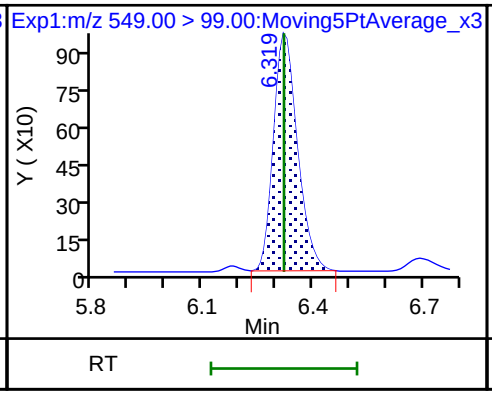
51 9ClFOS



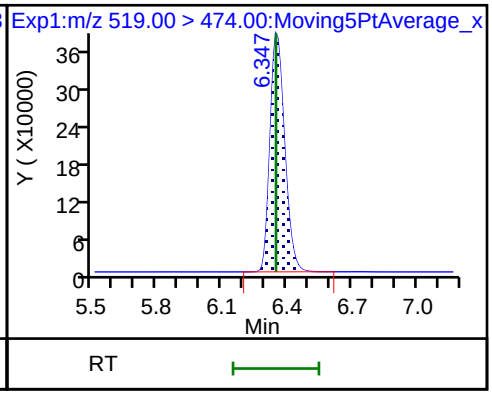
52 Perfluorononanesulfonic acid (M)



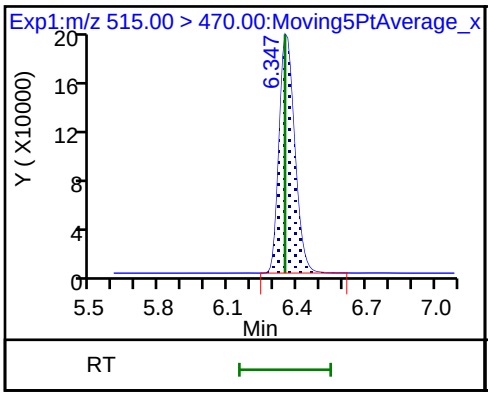
52 Perfluorononanesulfonic acid



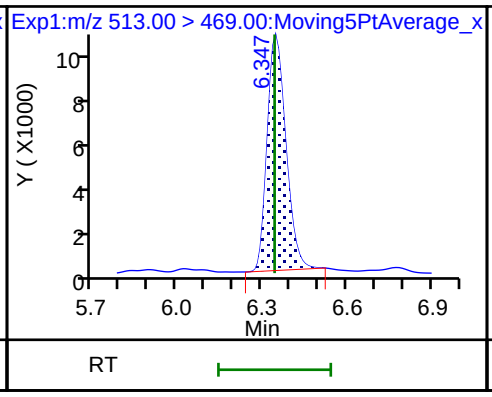
D 54 13C6 PFDA



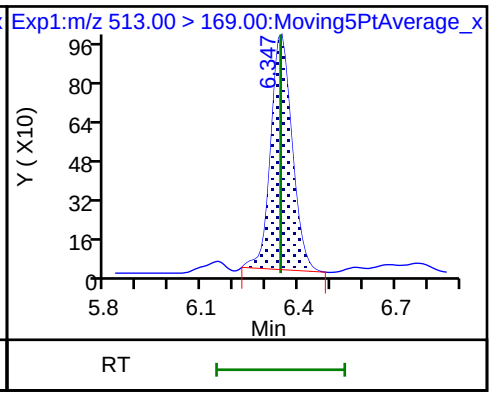
* 55 13C2 PFDA



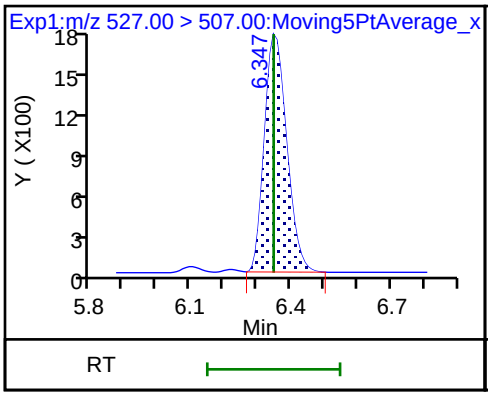
53 Perfluorodecanoic acid



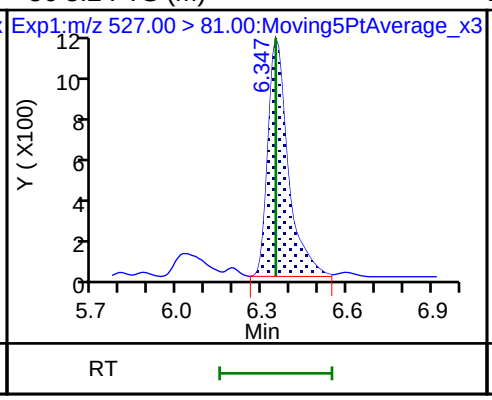
53 Perfluorodecanoic acid



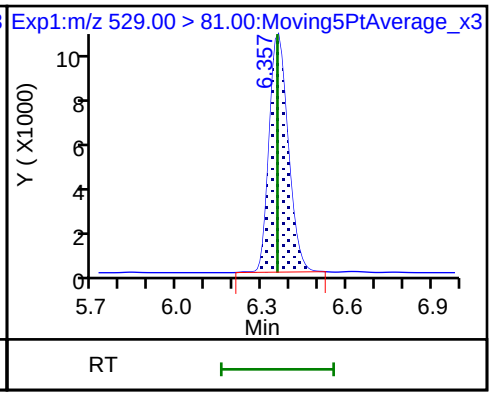
56 8:2 FTS



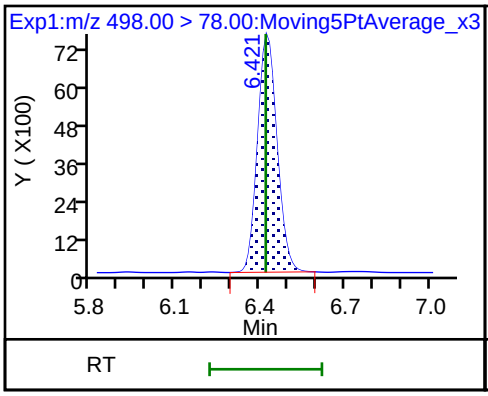
56 8:2 FTS (M)



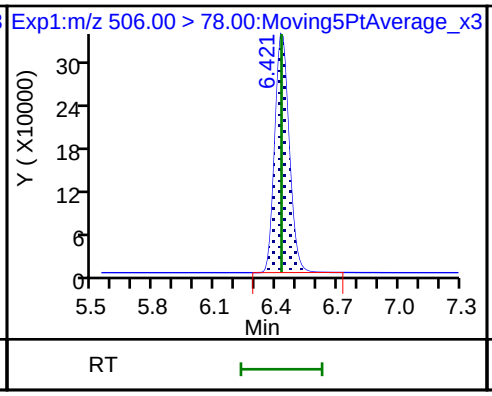
D 57 M2-8:2 FTS



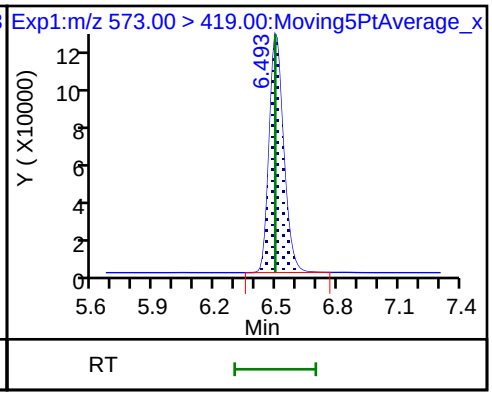
58 Perfluorooctanesulfonamide



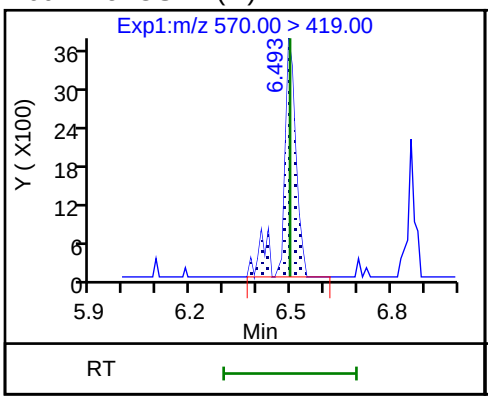
D 59 13C8 FOSA



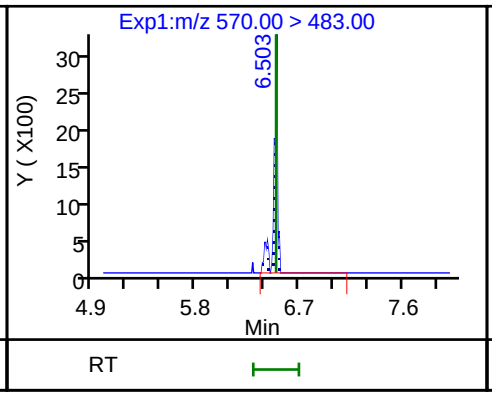
D 61 d3-NMeFOSAA



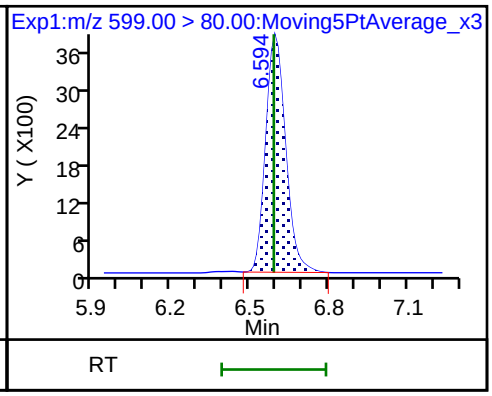
60 NMeFOSAA (M)



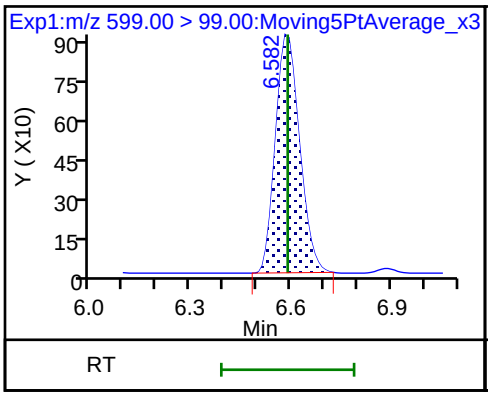
60 NMeFOSAA



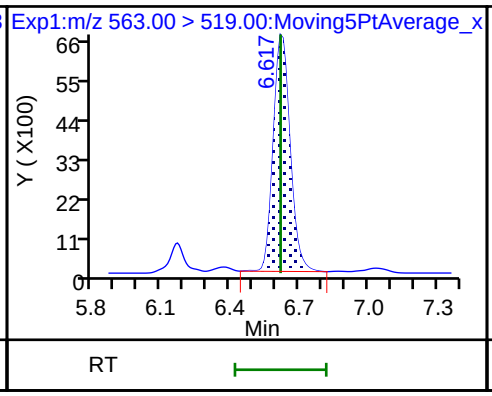
62 Perfluorodecanesulfonic acid



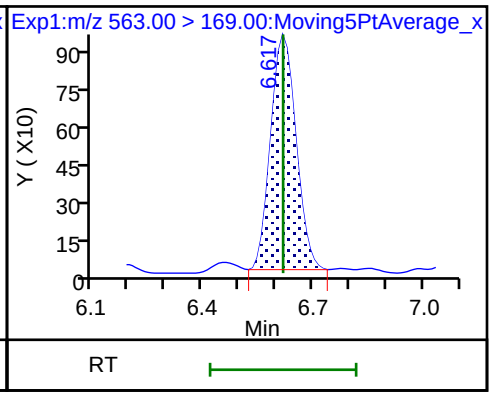
62 Perfluorodecanesulfonic acid



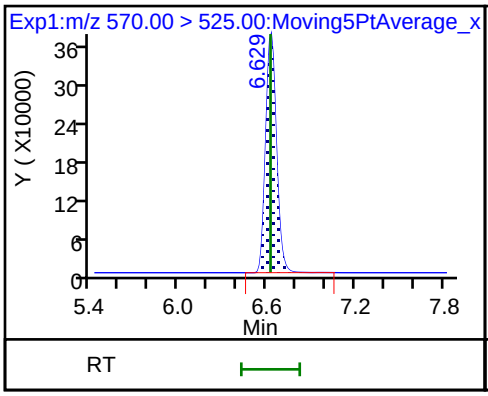
63 Perfluoroundecanoic acid



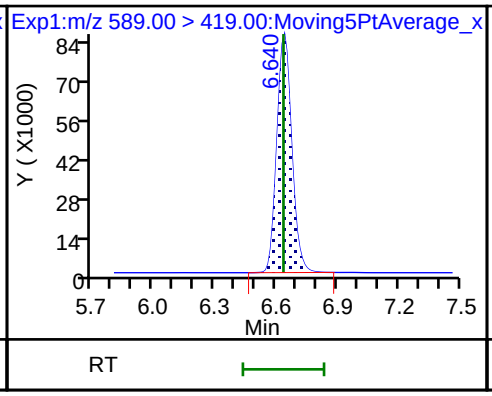
63 Perfluoroundecanoic acid



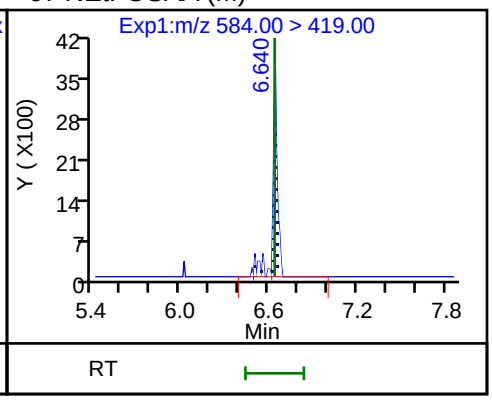
D 65 13C7 PFUnA



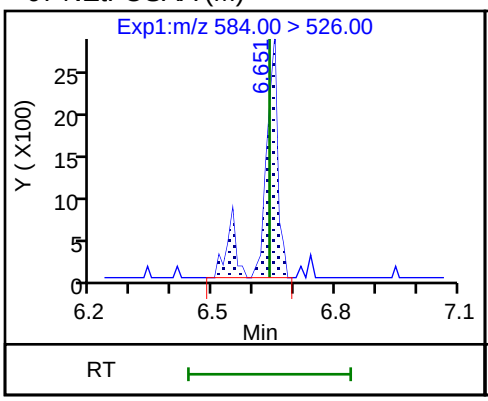
D 66 d5-NEtFOSAA



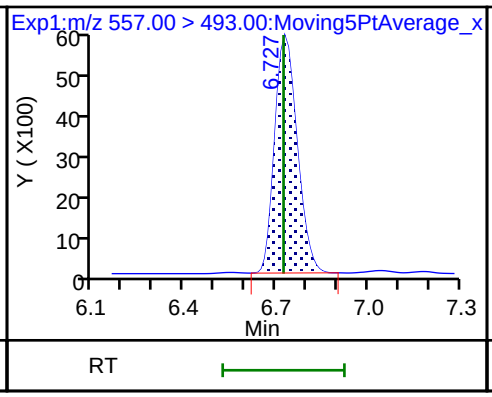
67 NEtFOSAA (M)



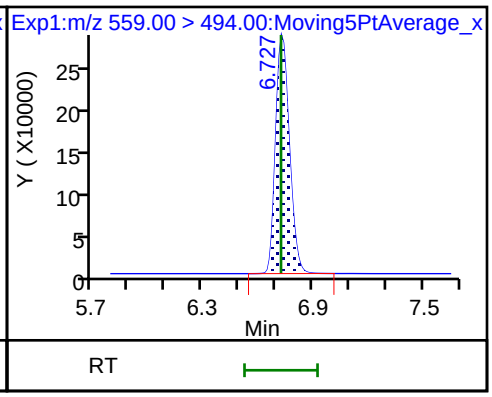
67 NEtFOSAA (M)



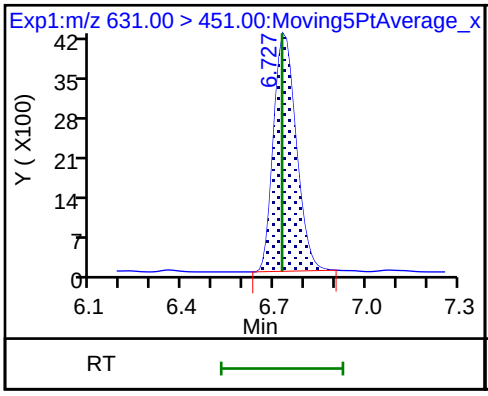
68 10:2 FTUCA



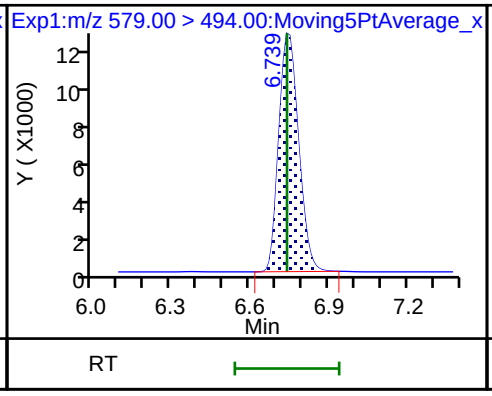
D 70 13C-10:2 FTUCA



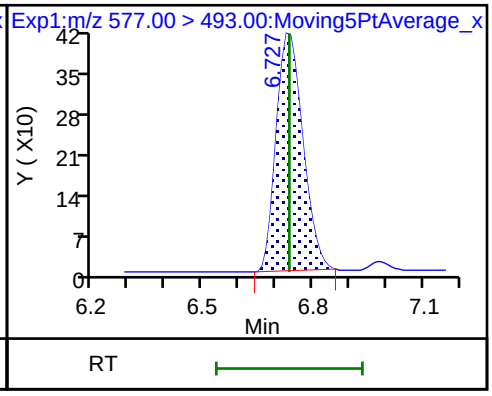
69 11ClFOS



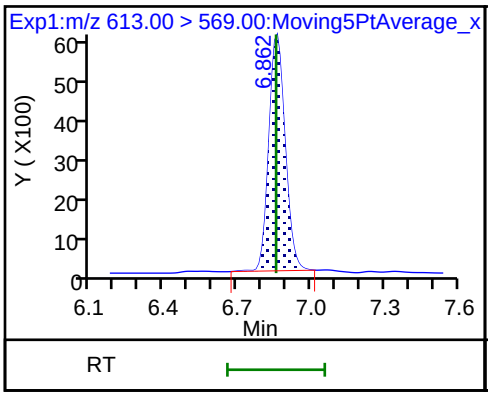
D 72 13C-10:2 FTCA



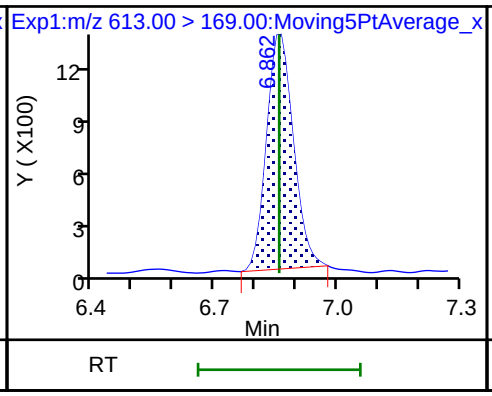
71 10:2 FTCA



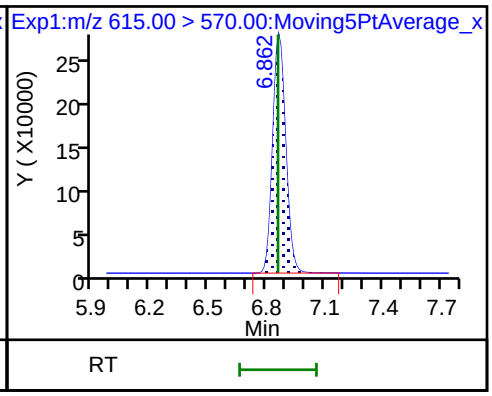
73 Perfluorododecanoic acid



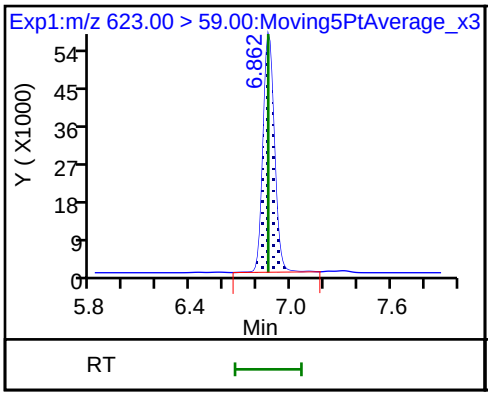
73 Perfluorododecanoic acid



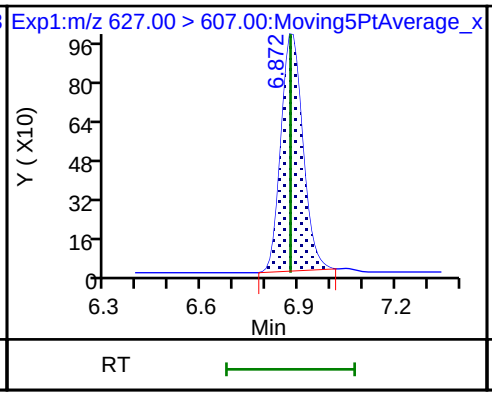
D 74 13C2-PFDoDA



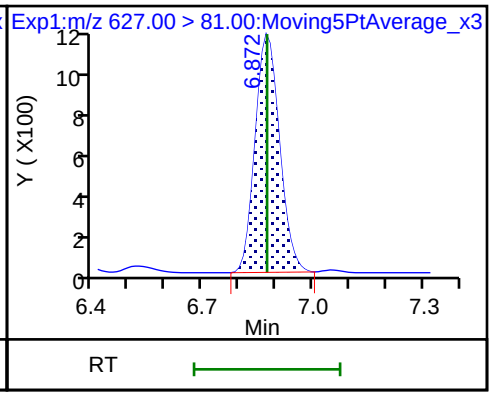
D 76 d7-N-MeFOSE-M



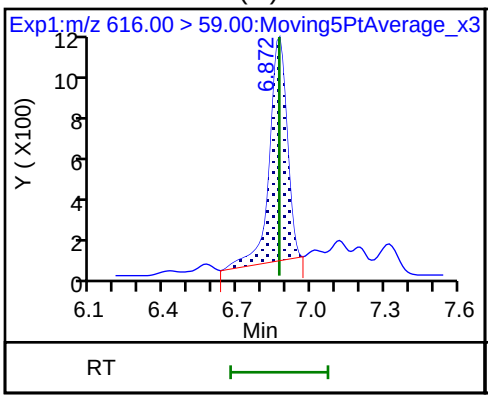
75 10:2 FTS



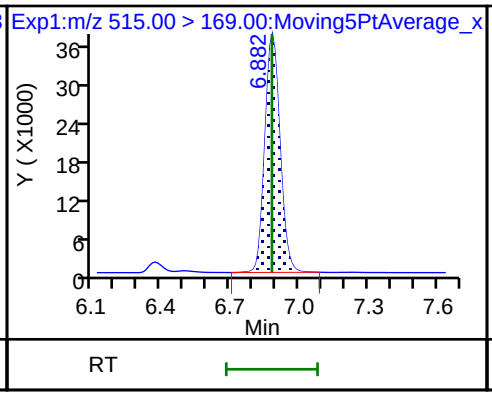
75 10:2 FTS



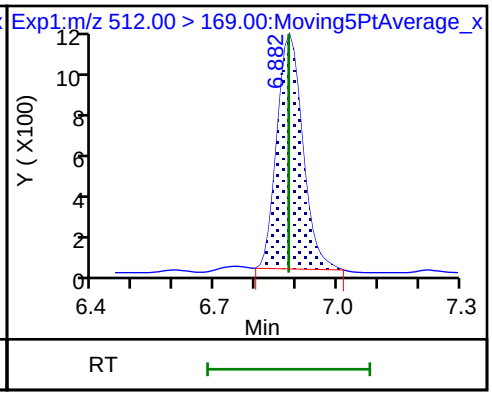
77 N-MeFOSE-M (M)



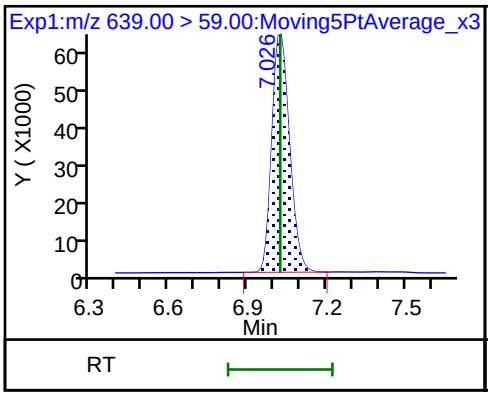
D 79 d3-NMePFOSA



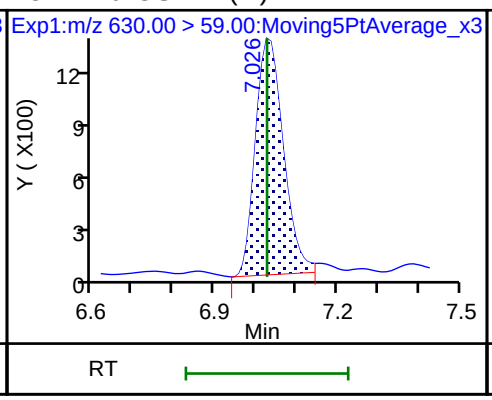
78 NMeFOSA



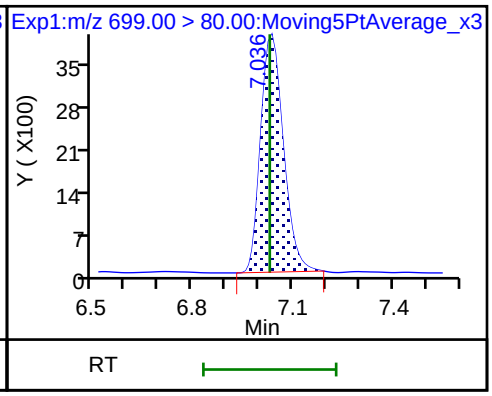
D 81 d9-N-EtFOSE-M



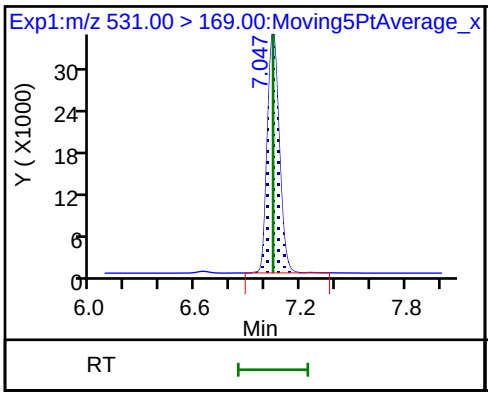
82 N-EtFOSE-M (M)



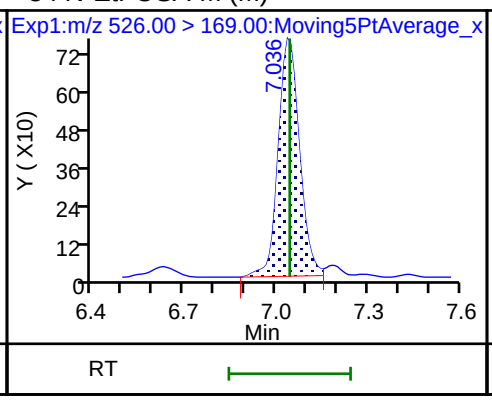
80 PFDoS



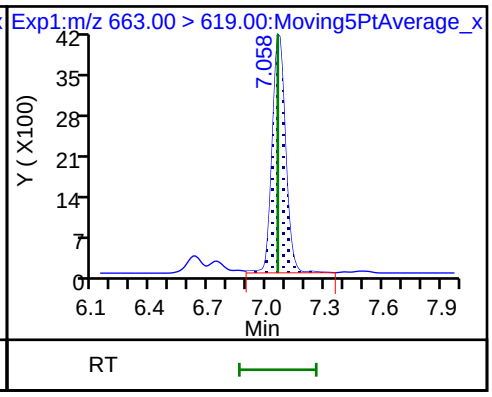
D 83 d5-NEtPFOSA



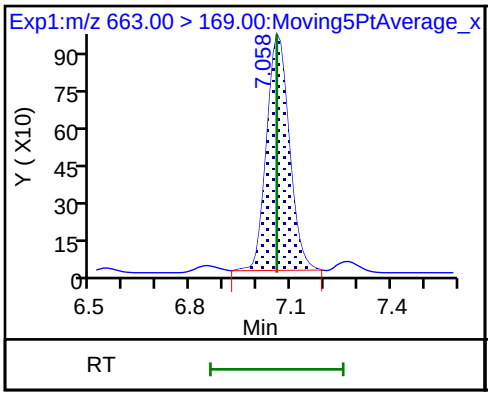
84 N-EtFOSA-M (M)



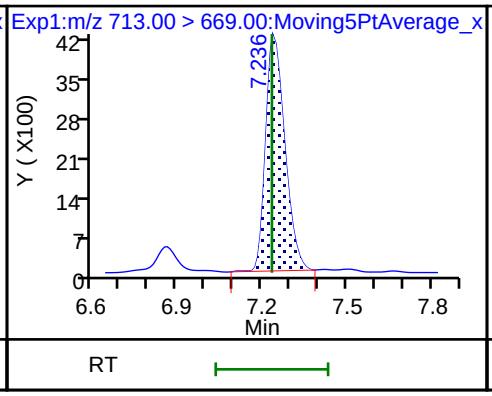
85 Perfluorotridecanoic acid



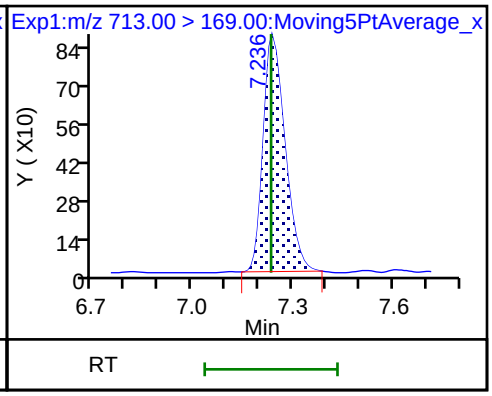
85 Perfluorotridecanoic acid



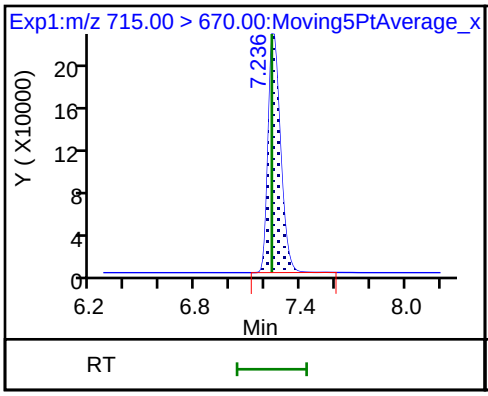
86 Perfluorotetradecanoic acid



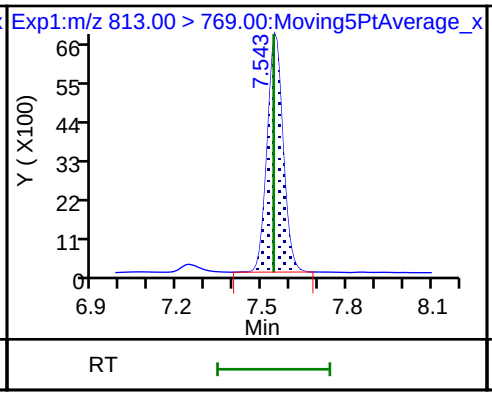
86 Perfluorotetradecanoic acid



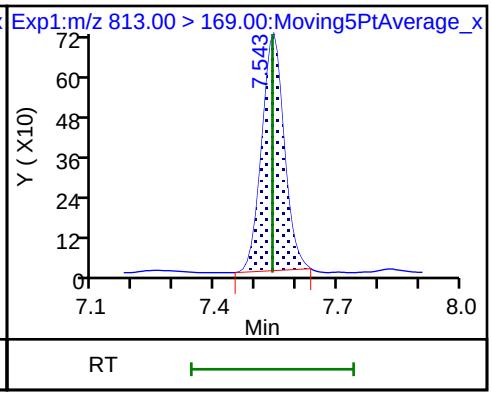
D 87 13C2 PFTeDA



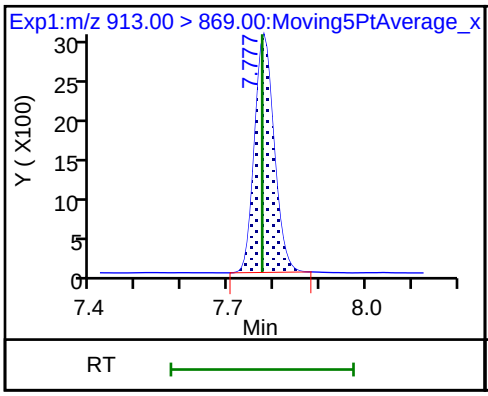
88 Perfluorohexadecanoic acid



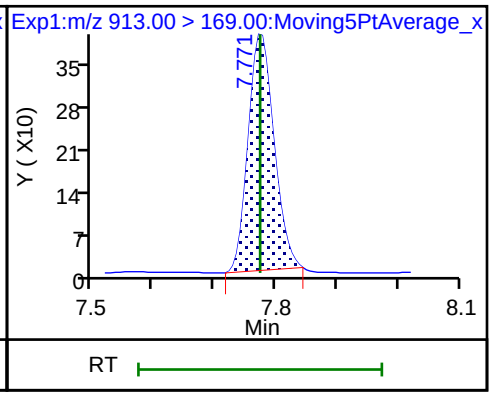
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

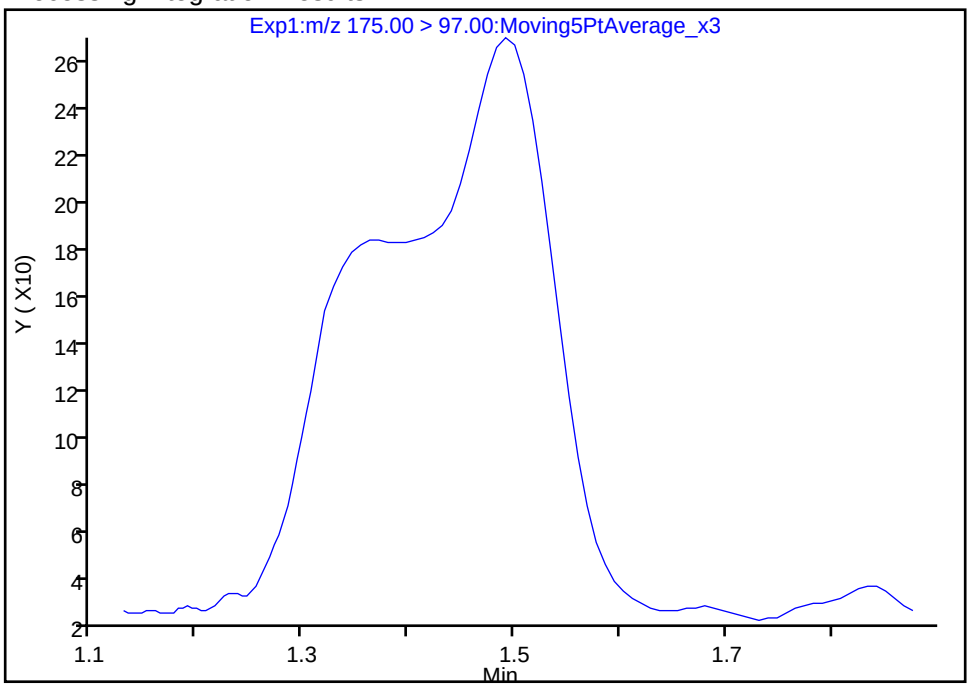
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

107 MTP, CAS: 93449-21-9

Signal: 1

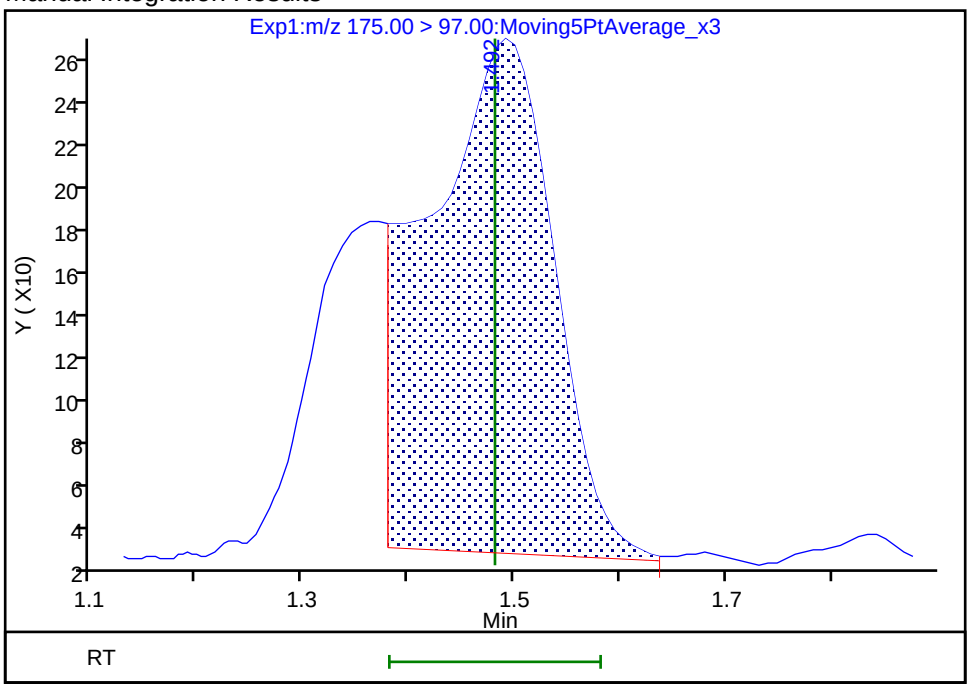
Processing Integration Results

Not Detected
Expected RT: 1.48



Manual Integration Results

RT: 1.49
Area: 1927
Amount: 0.203949
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:01:16
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

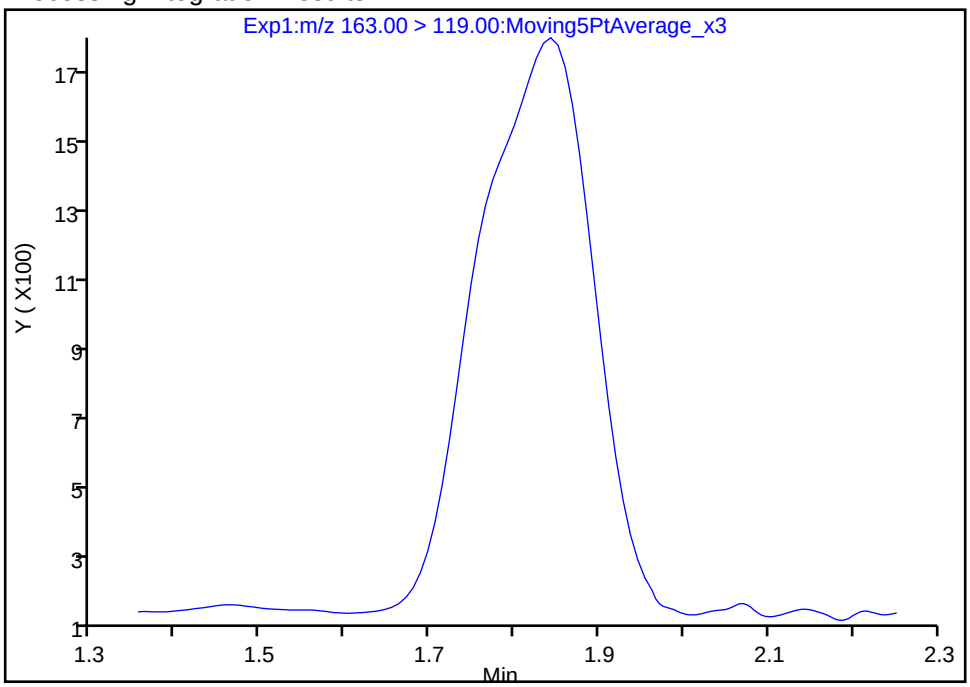
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

1 PPF Acid, CAS: 422-64-0

Signal: 1

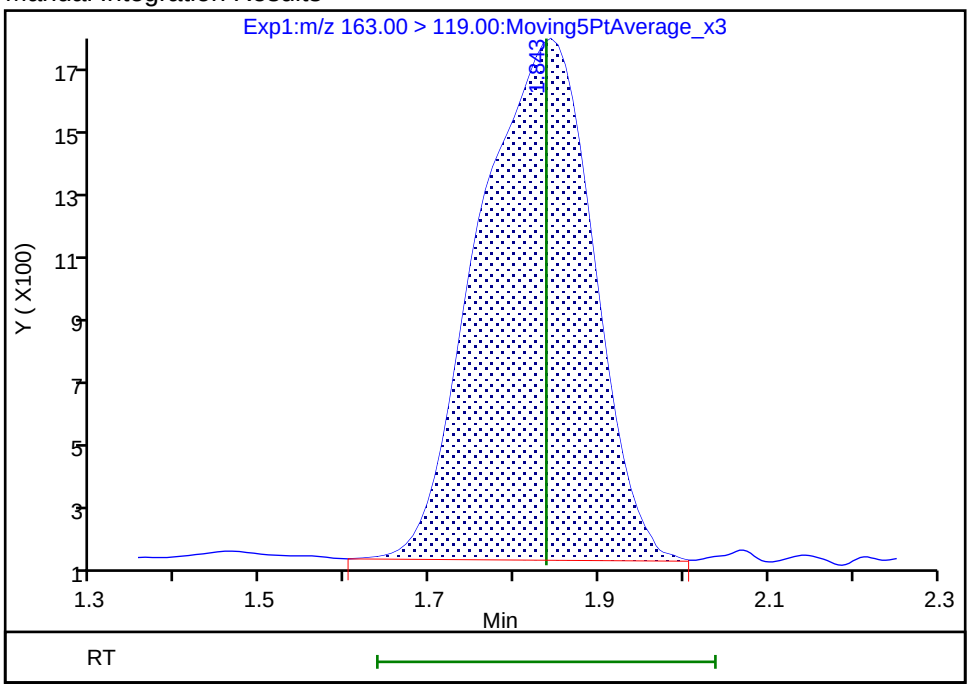
Not Detected
Expected RT: 1.84

Processing Integration Results



Manual Integration Results

RT:	1.84
Area:	14686
Amount:	0.193567
Amount Units:	ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:01:31
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

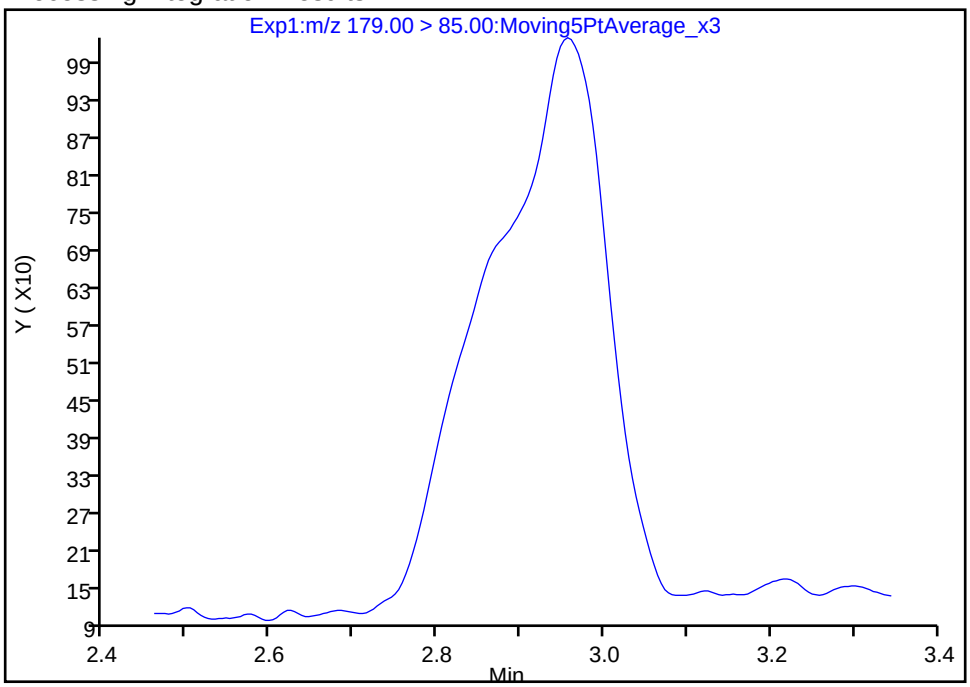
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

96 PFMOAA, CAS: 674-13-5

Signal: 1

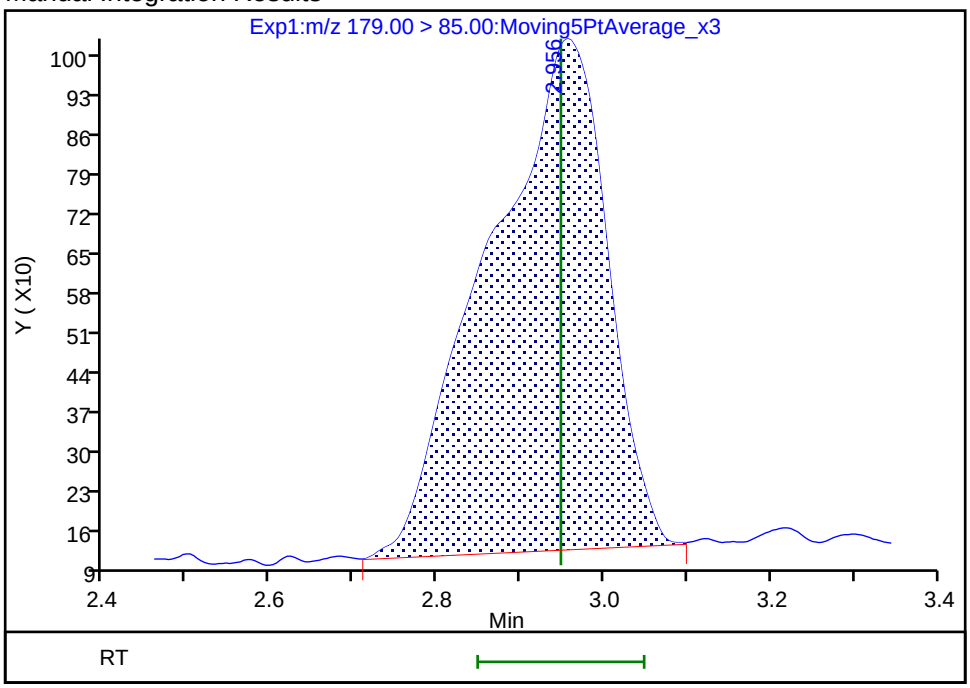
Not Detected
Expected RT: 2.95

Processing Integration Results



Manual Integration Results

RT: 2.96
Area: 8983
Amount: 0.193895
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:01:54
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

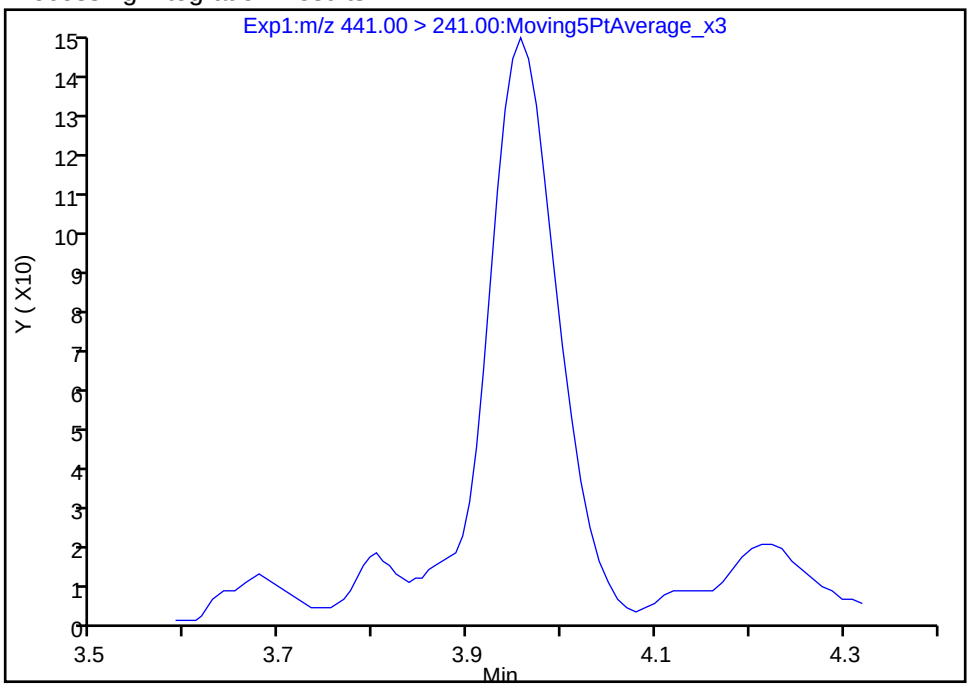
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

100 R-PSDA, CAS: 2416366-18-0

Signal: 1

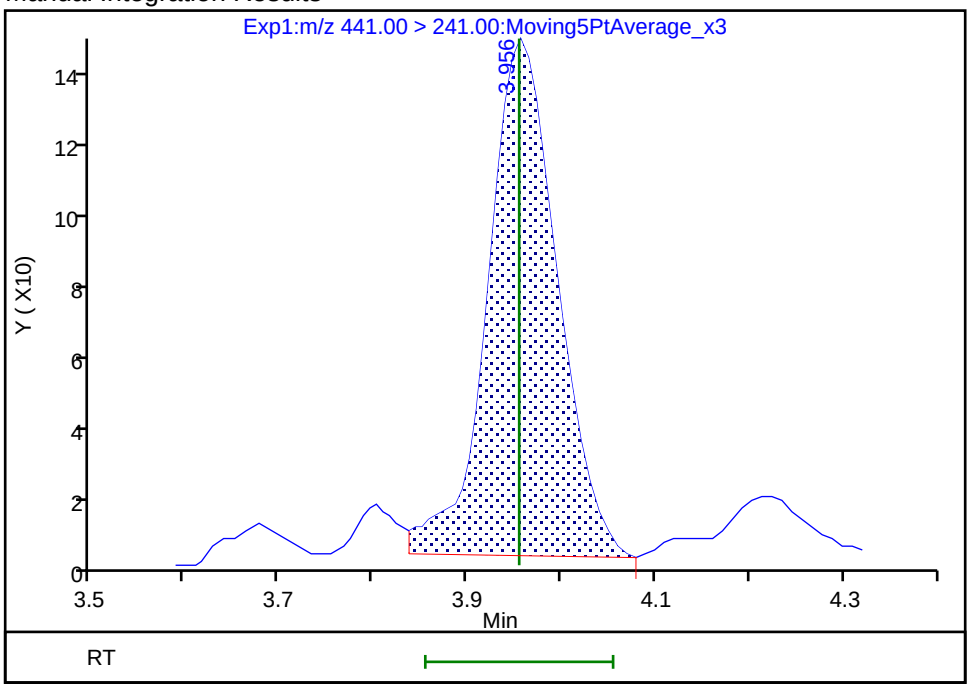
Processing Integration Results

Not Detected
Expected RT: 3.95



Manual Integration Results

RT: 3.96
Area: 699
Amount: 0.222085
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:02:13
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

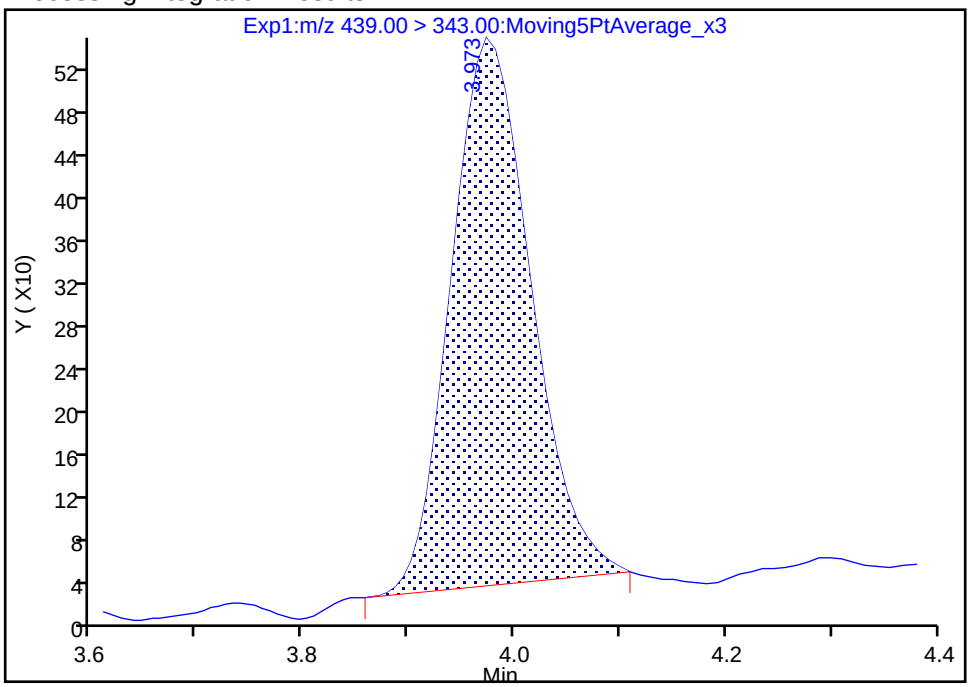
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

105 Hydrolyzed PSDA, CAS: 2416366-19-1

Signal: 1

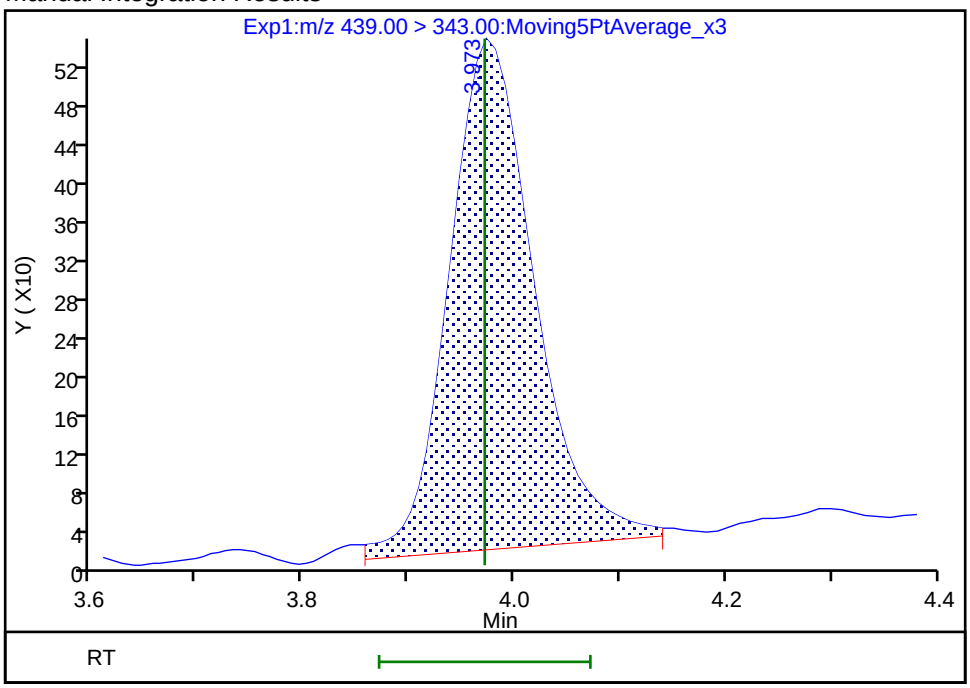
Processing Integration Results

RT: 3.97
Area: 2671
Amount: 0.170600
Amount Units: ng/ml



Manual Integration Results

RT: 3.97
Area: 2939
Amount: 0.185610
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:06:53

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

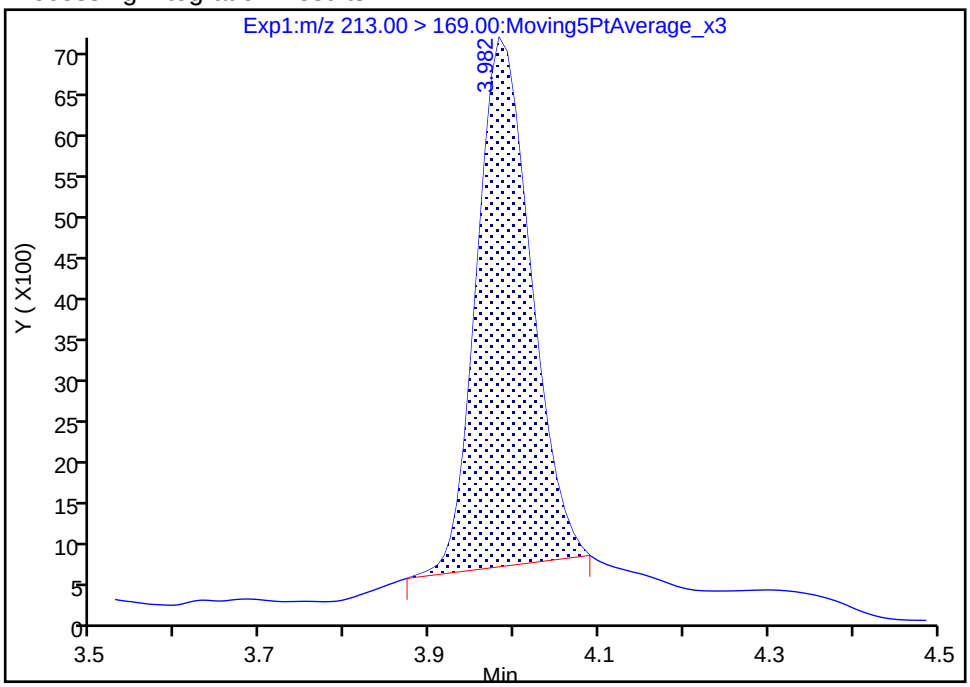
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

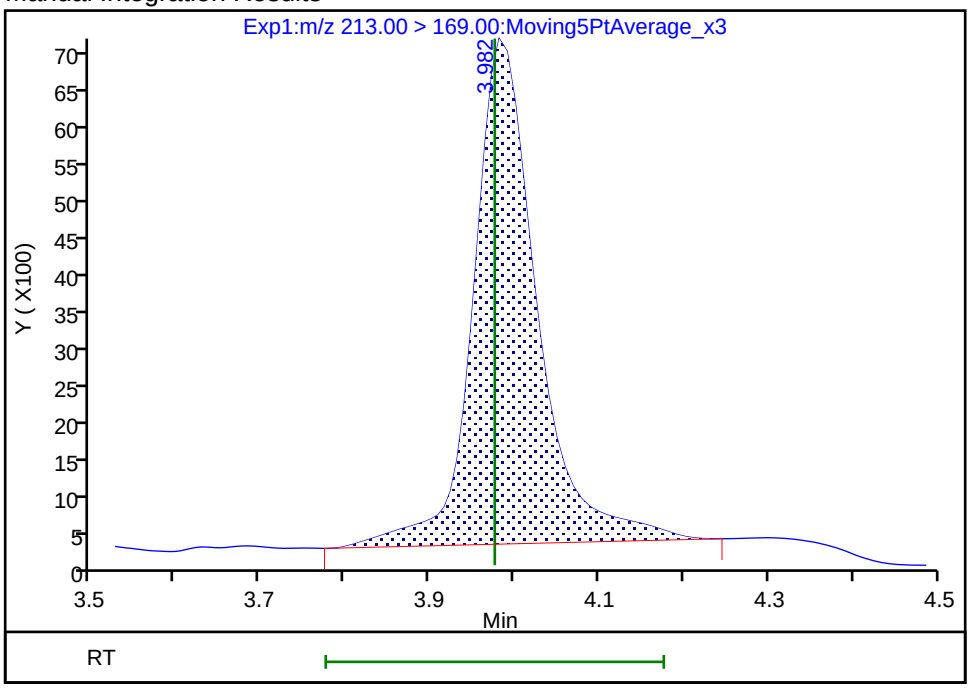
Processing Integration Results

RT: 3.98
Area: 29068
Amount: 0.207494
Amount Units: ng/ml



Manual Integration Results

RT: 3.98
Area: 36189
Amount: 0.249274
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:07:04

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

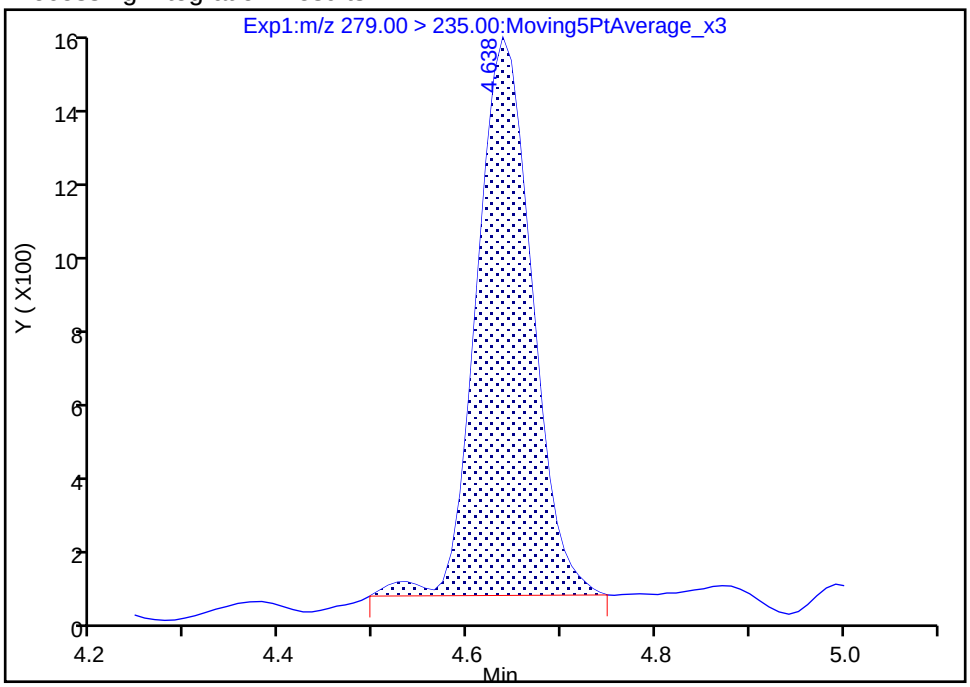
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

91 PEPA, CAS: 267239-61-2

Signal: 1

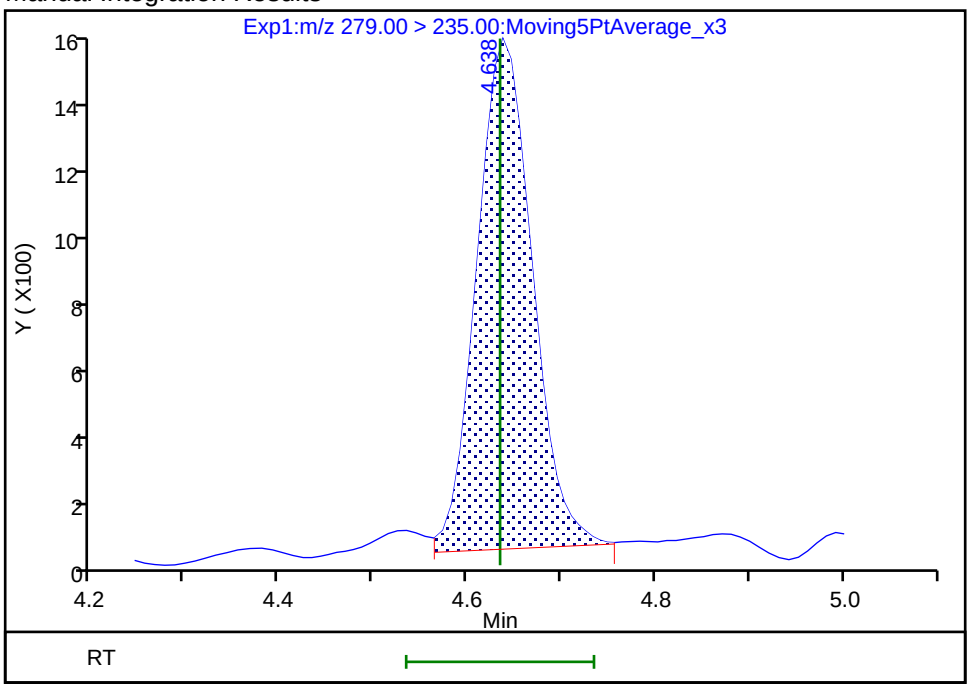
Processing Integration Results

RT: 4.64
Area: 5929
Amount: 0.210115
Amount Units: ng/ml



Manual Integration Results

RT: 4.64
Area: 6013
Amount: 0.212639
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:07:33

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

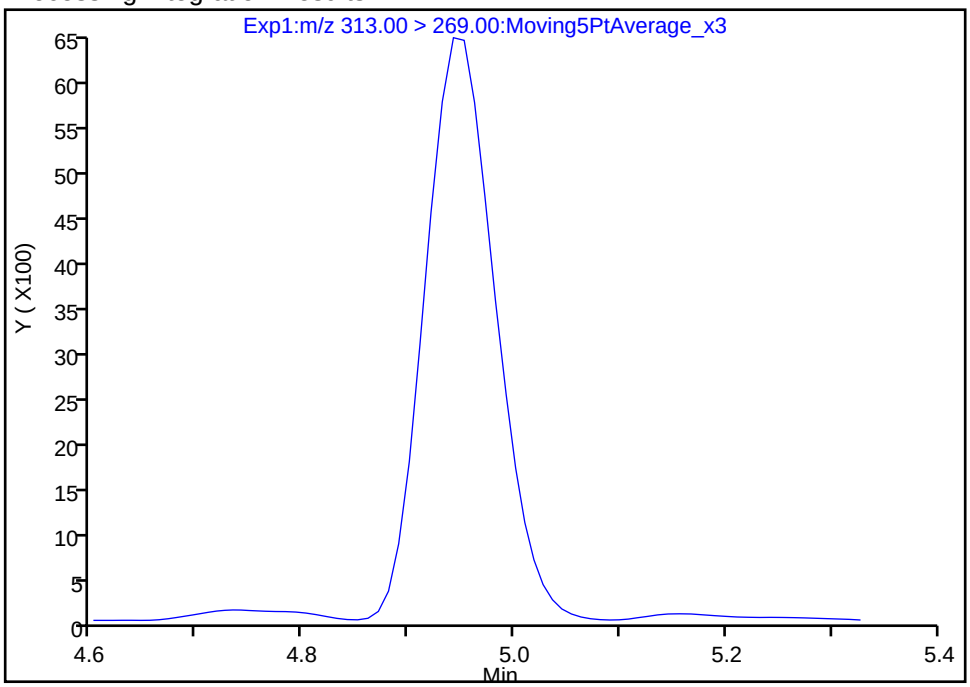
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

17 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

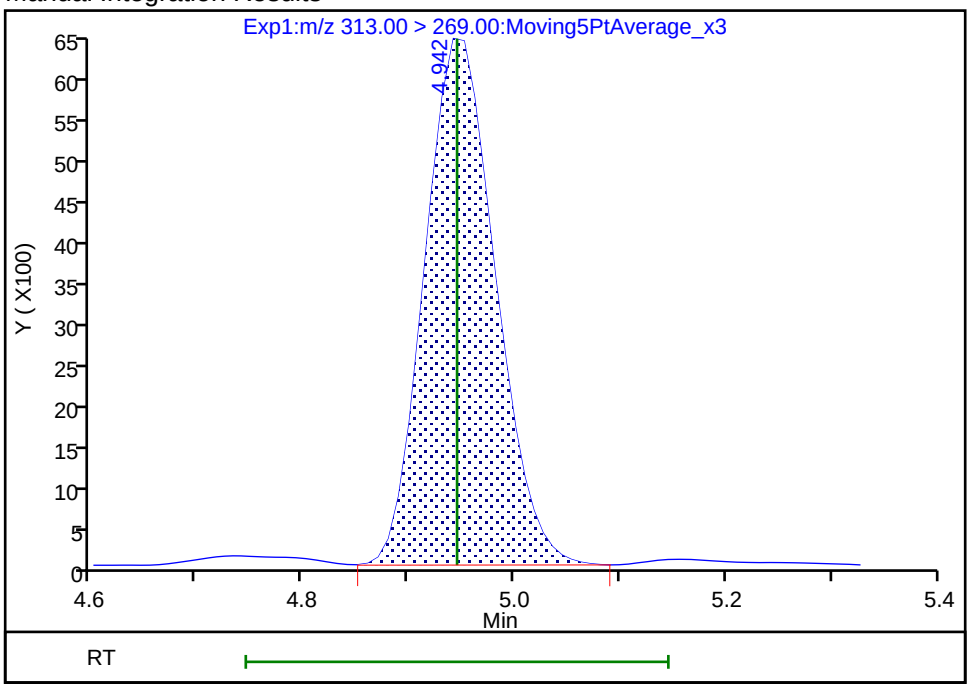
Processing Integration Results

Not Detected
Expected RT: 4.95



Manual Integration Results

RT: 4.94
Area: 29728
Amount: 0.211908
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:03:22
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

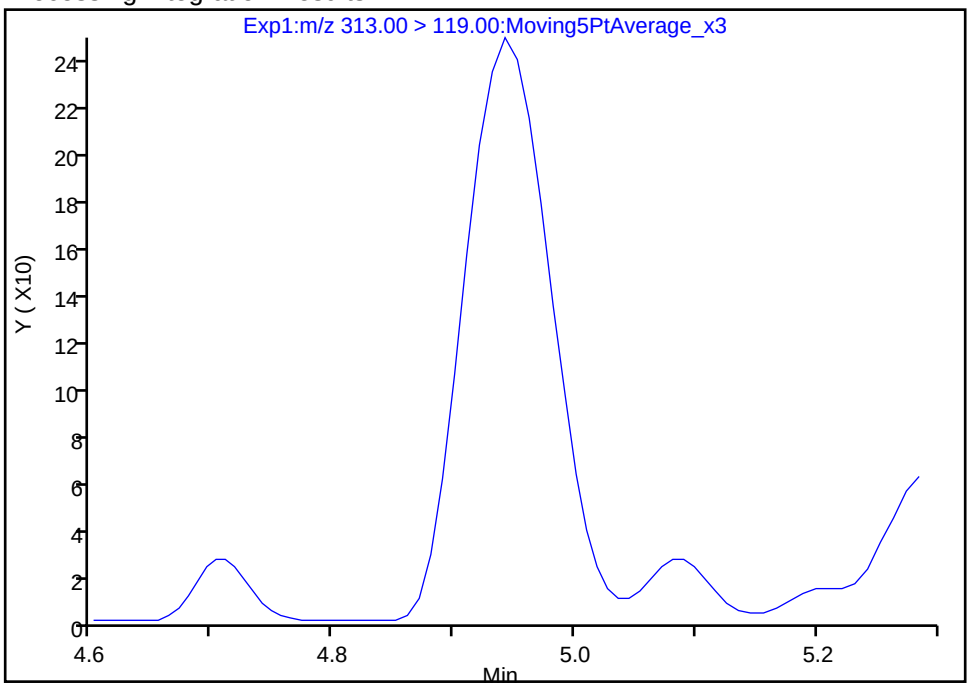
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

17 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

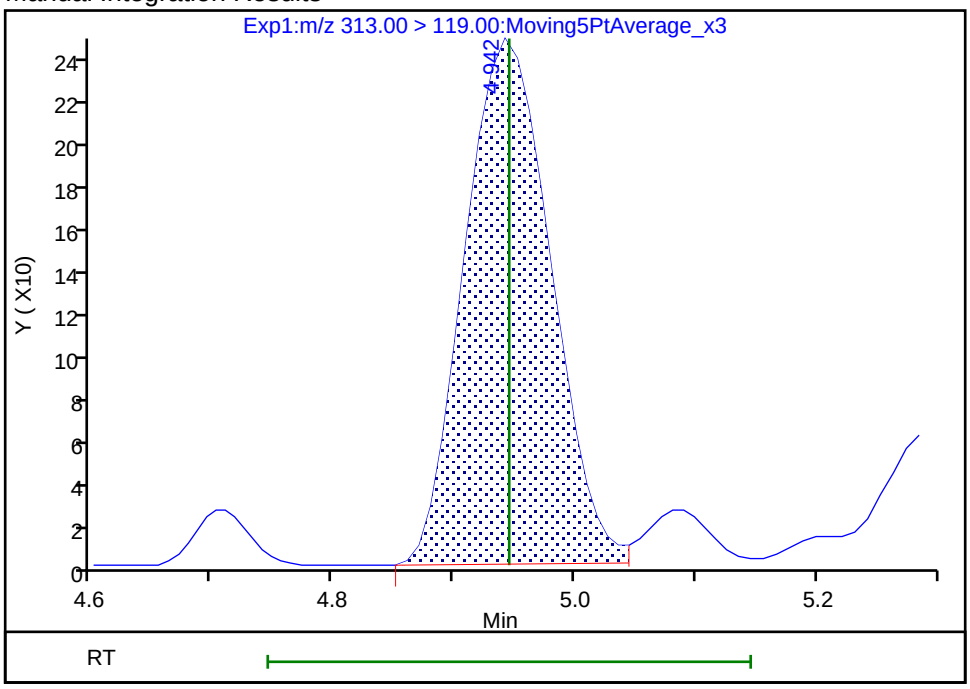
Processing Integration Results

Not Detected
Expected RT: 4.95



Manual Integration Results

RT: 4.94
Area: 1187
Amount: 0.211908
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:03:39
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

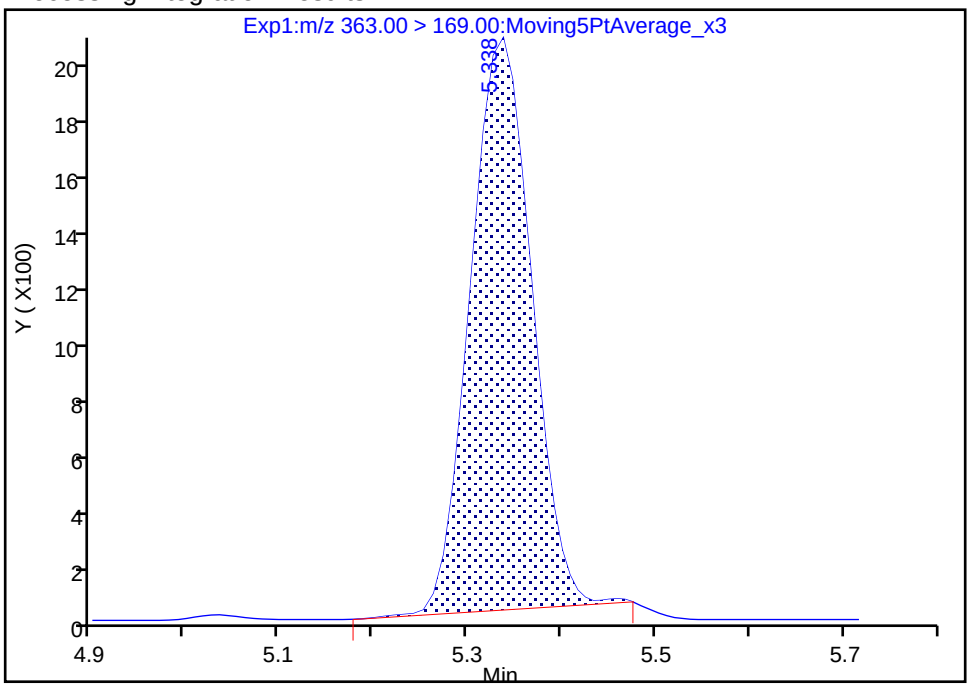
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

23 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

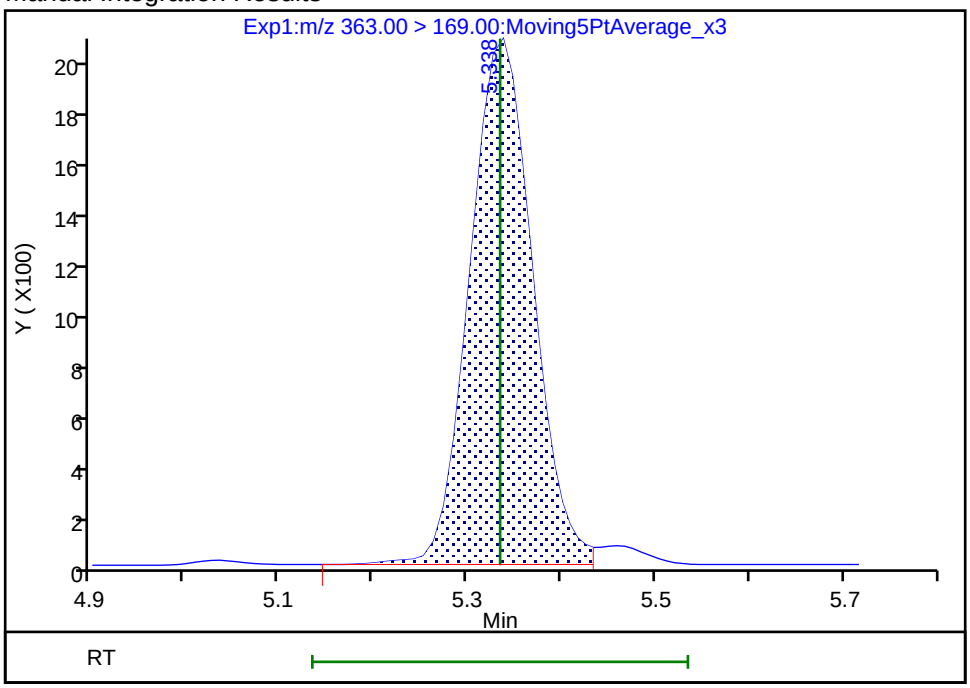
Processing Integration Results

RT: 5.34
Area: 9262
Amount: 0.214357
Amount Units: ng/ml



Manual Integration Results

RT: 5.34
Area: 9648
Amount: 0.214357
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:13:19

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

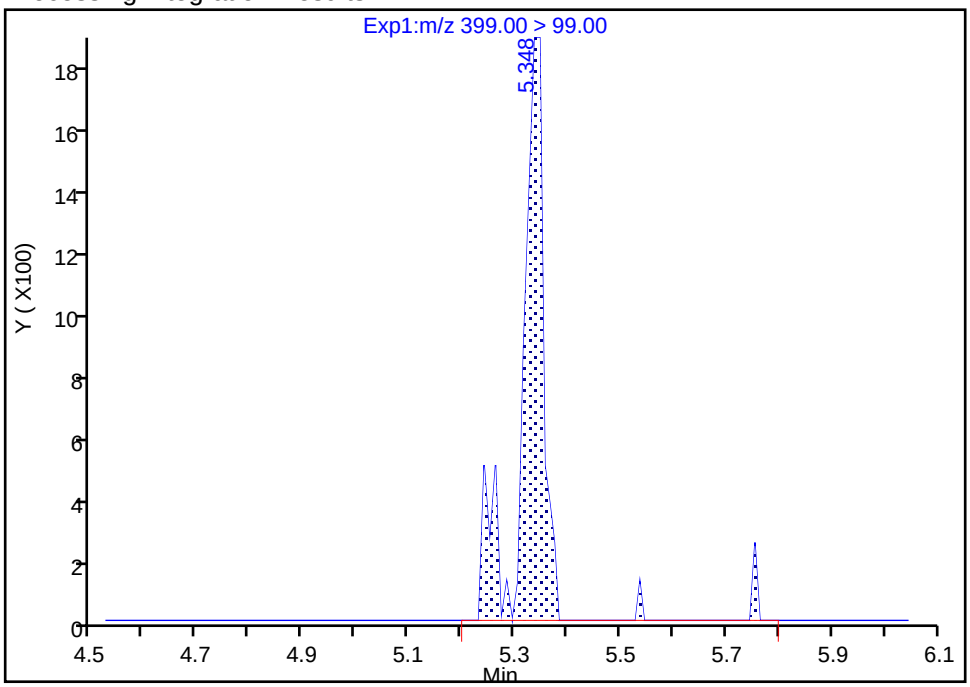
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

26 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

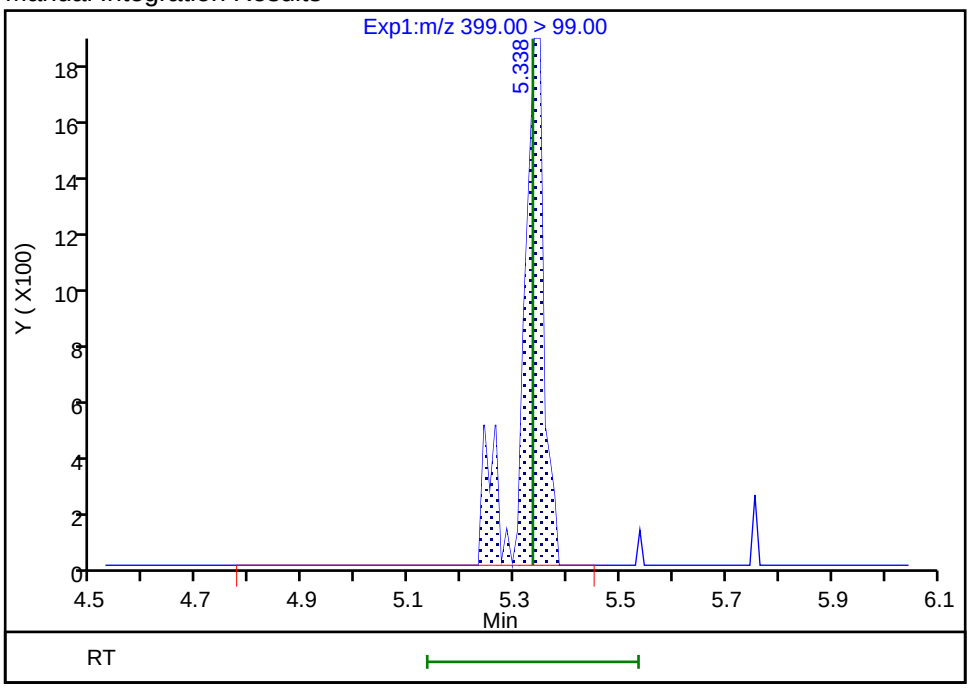
Processing Integration Results

RT: 5.35
Area: 5445
Amount: 0.204988
Amount Units: ng/ml



Manual Integration Results

RT: 5.34
Area: 5238
Amount: 0.204988
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:10:56

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

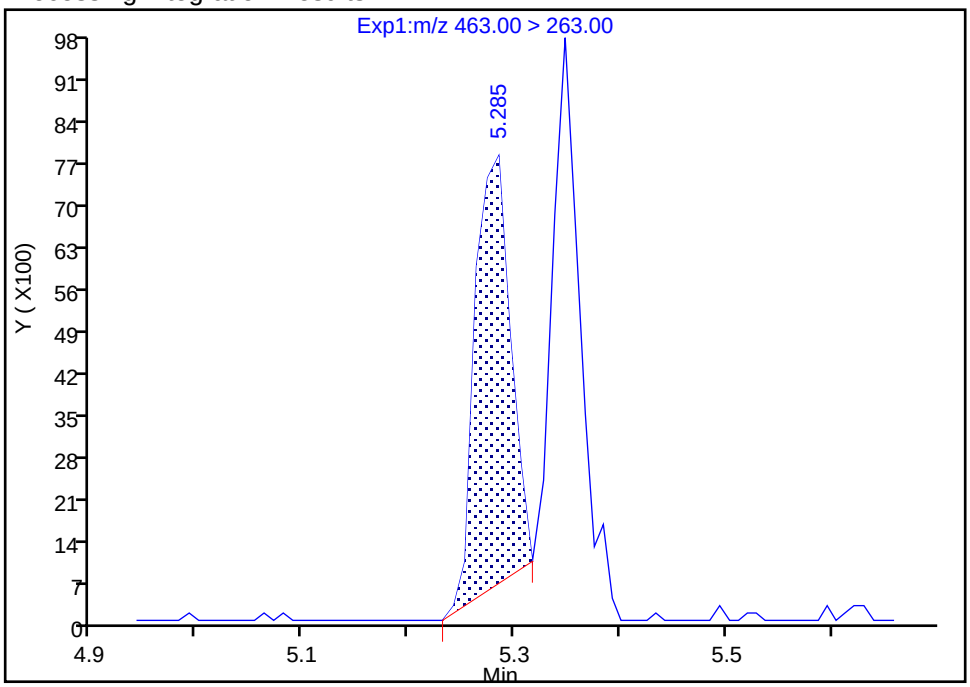
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

106 Hydro-PS Acid, CAS: 749836-20-2

Signal: 1

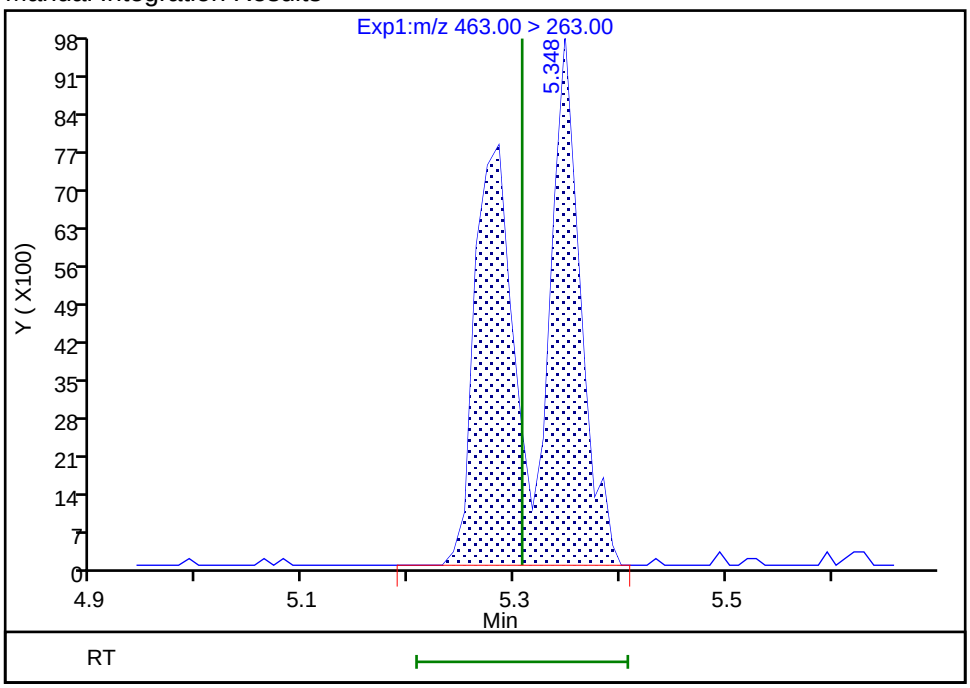
Processing Integration Results

RT: 5.29
Area: 16711
Amount: 0.195678
Amount Units: ng/ml



Manual Integration Results

RT: 5.35
Area: 38130
Amount: 0.200730
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:10:37

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

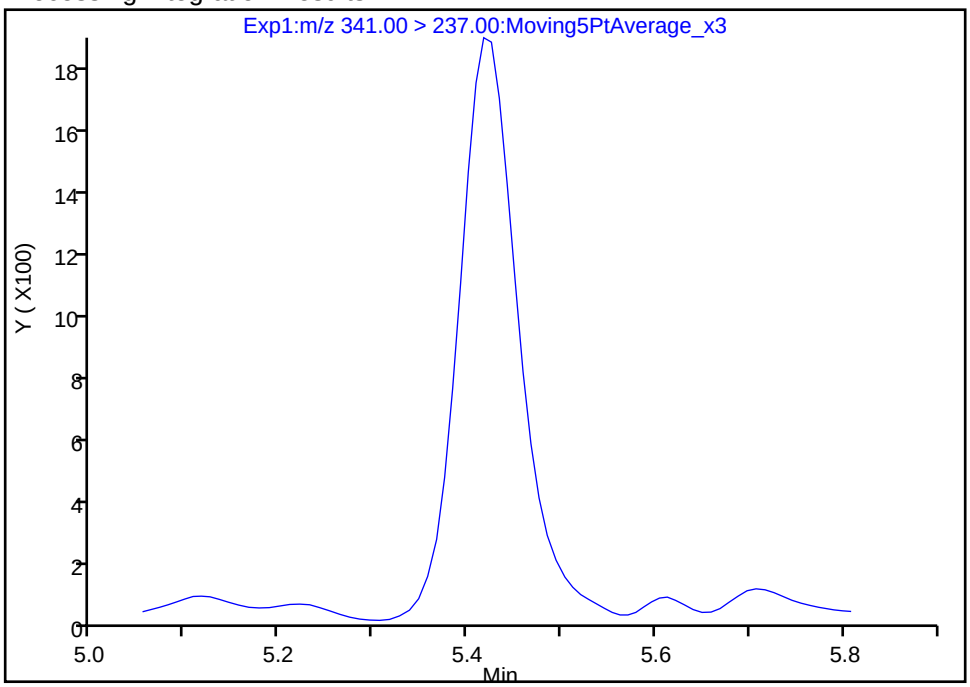
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

28 5:3 FTCA, CAS: 914637-49-3

Signal: 1

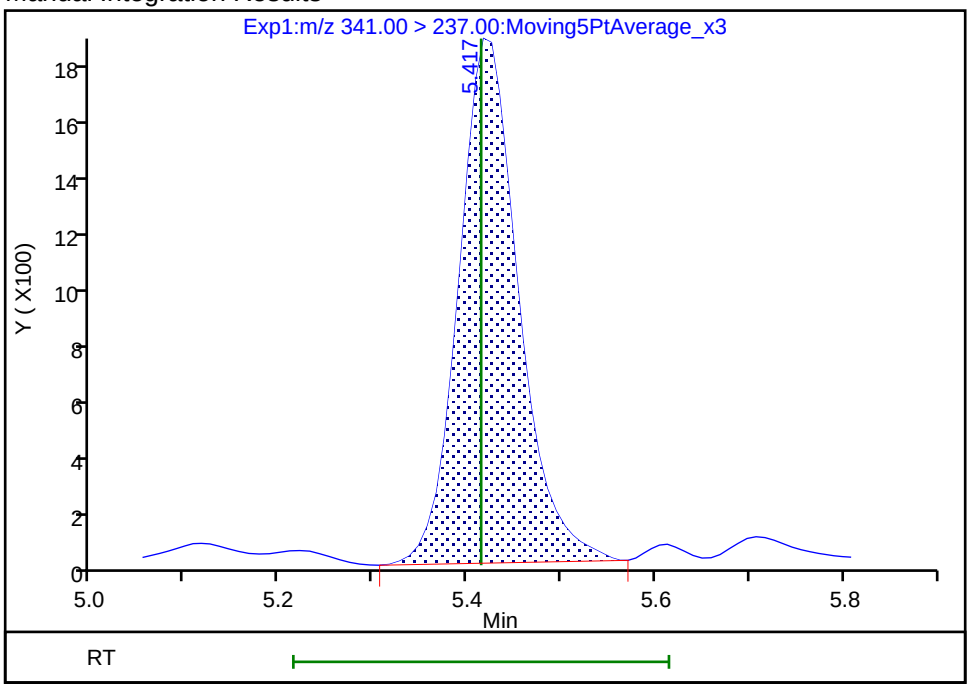
Processing Integration Results

Not Detected
Expected RT: 5.41



Manual Integration Results

RT: 5.42
Area: 8067
Amount: 0.221216
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:03:52
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

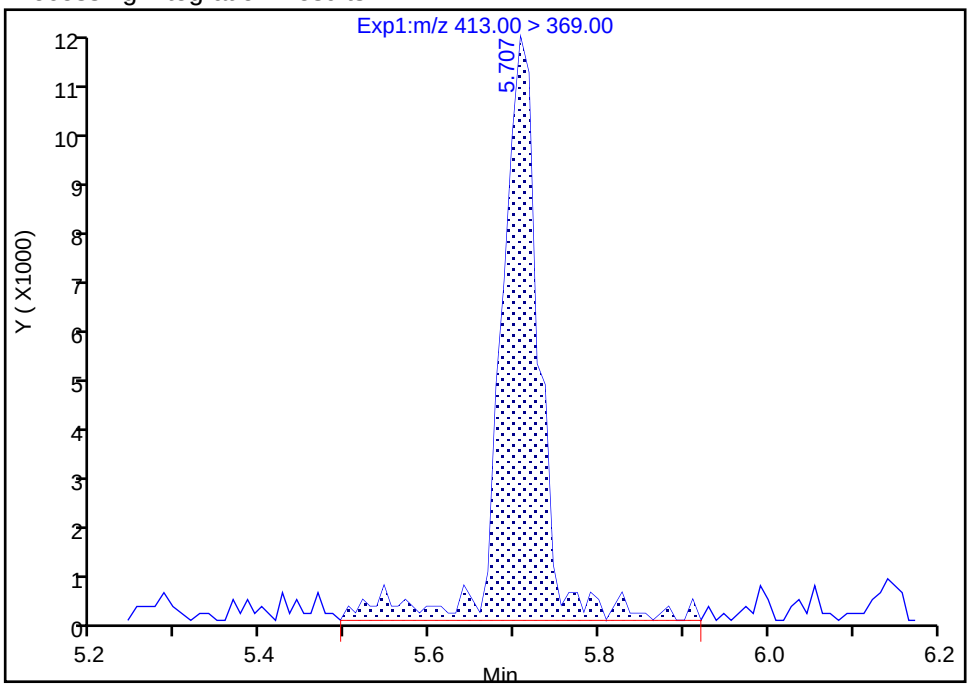
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

40 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

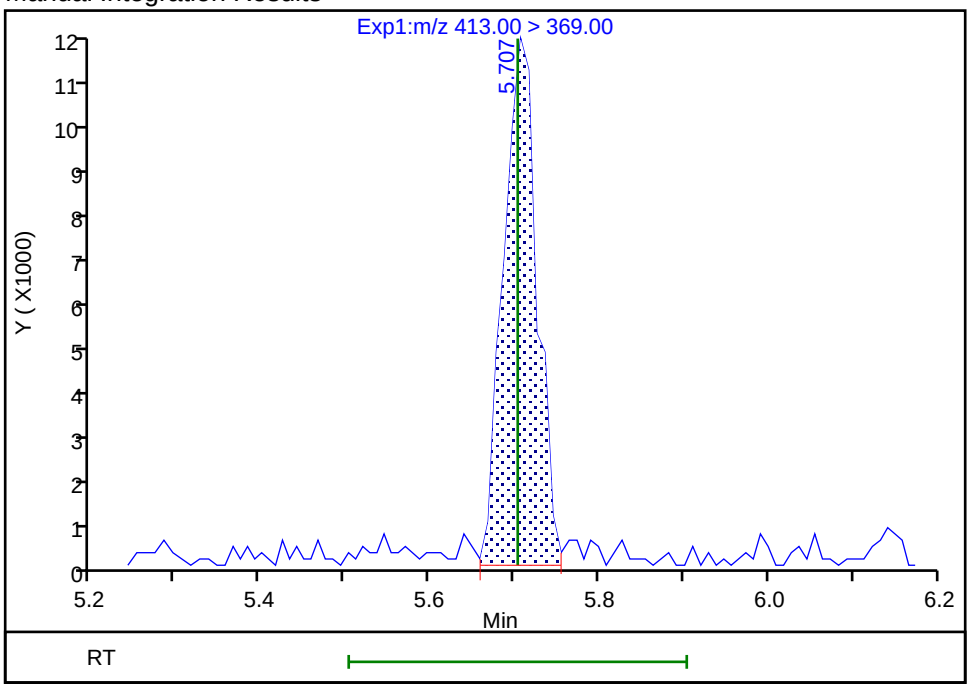
Processing Integration Results

RT: 5.71
Area: 37764
Amount: 0.236570
Amount Units: ng/ml



Manual Integration Results

RT: 5.71
Area: 32309
Amount: 0.209165
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:13:31

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

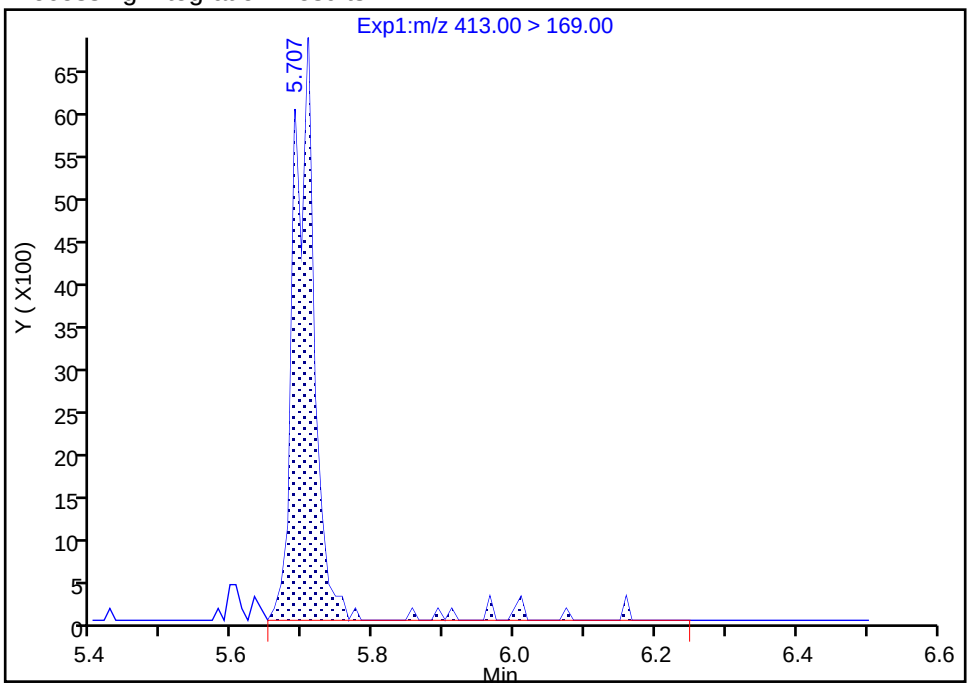
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

40 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

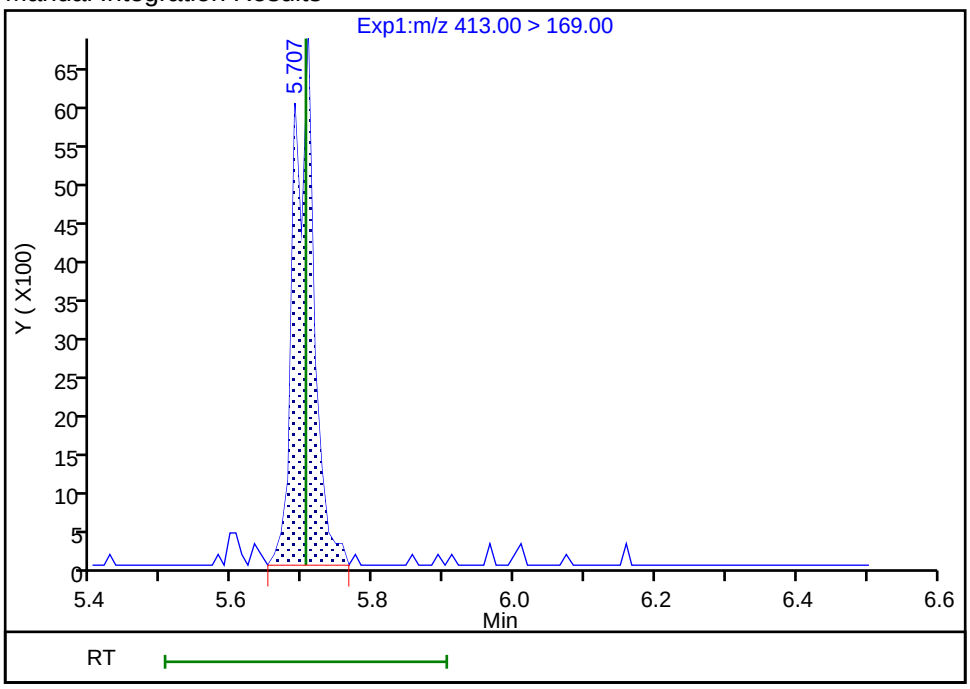
Processing Integration Results

RT: 5.71
Area: 14430
Amount: 0.236570
Amount Units: ng/ml



Manual Integration Results

RT: 5.71
Area: 13530
Amount: 0.209165
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:13:38

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

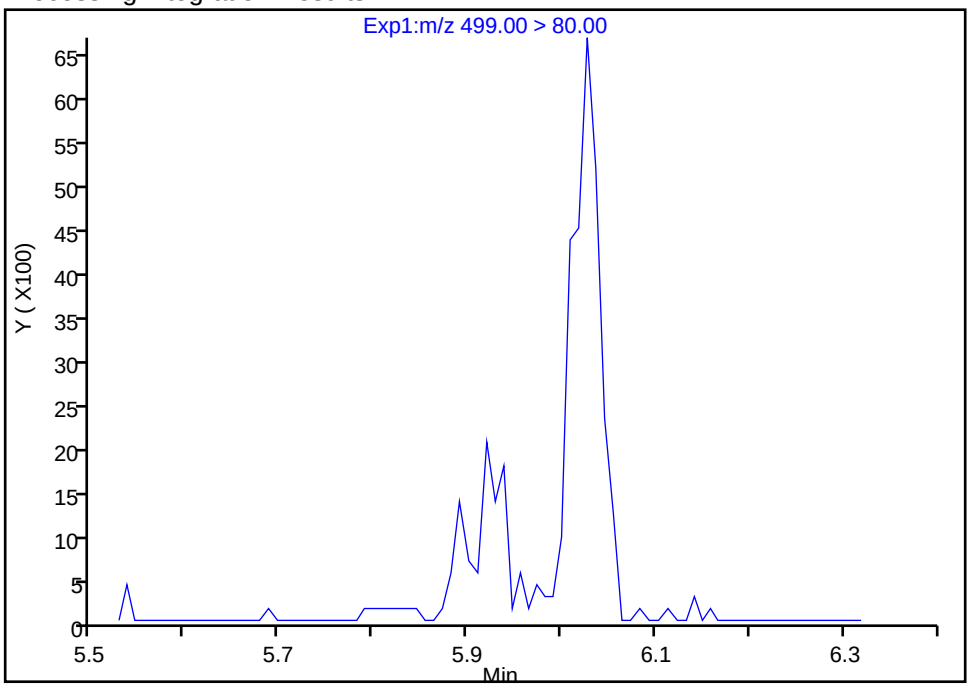
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

43 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

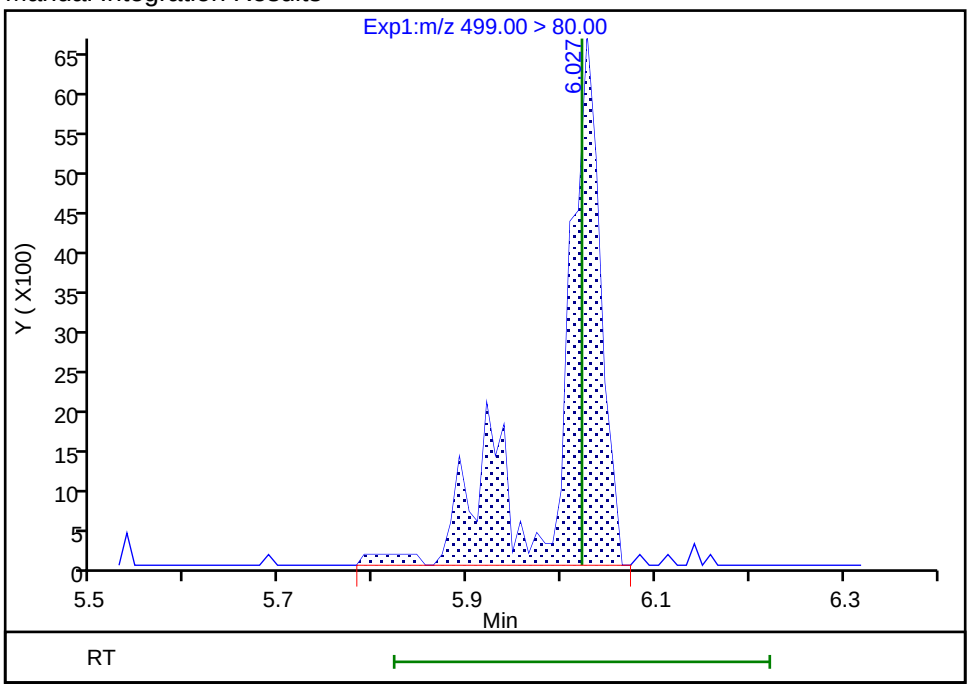
Processing Integration Results

Not Detected
Expected RT: 6.02



Manual Integration Results

RT: 6.03
Area: 20035
Amount: 0.212021
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:04:00
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

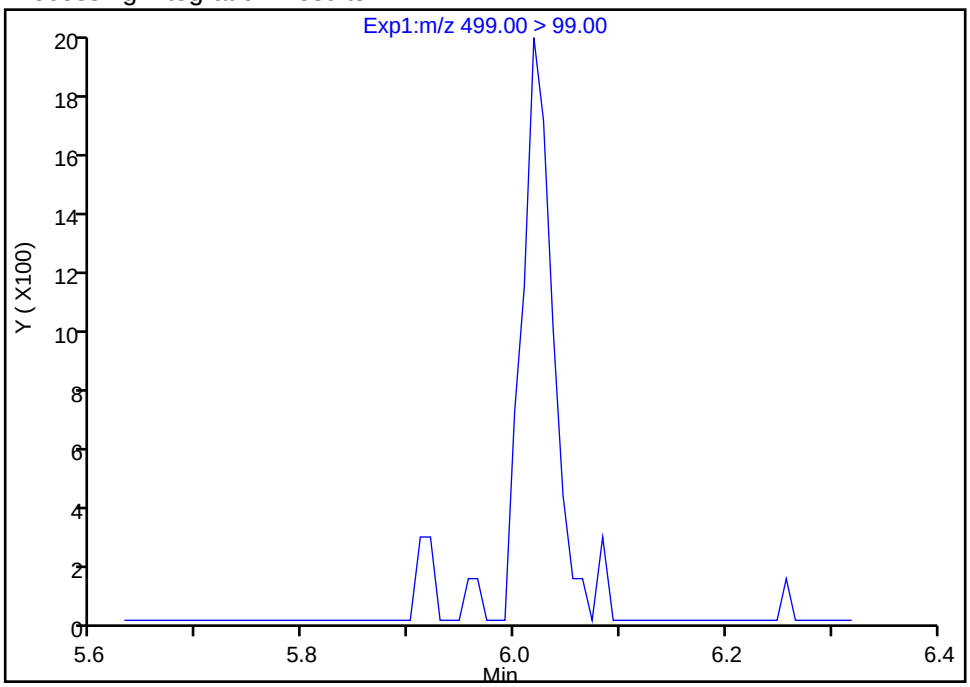
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

43 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

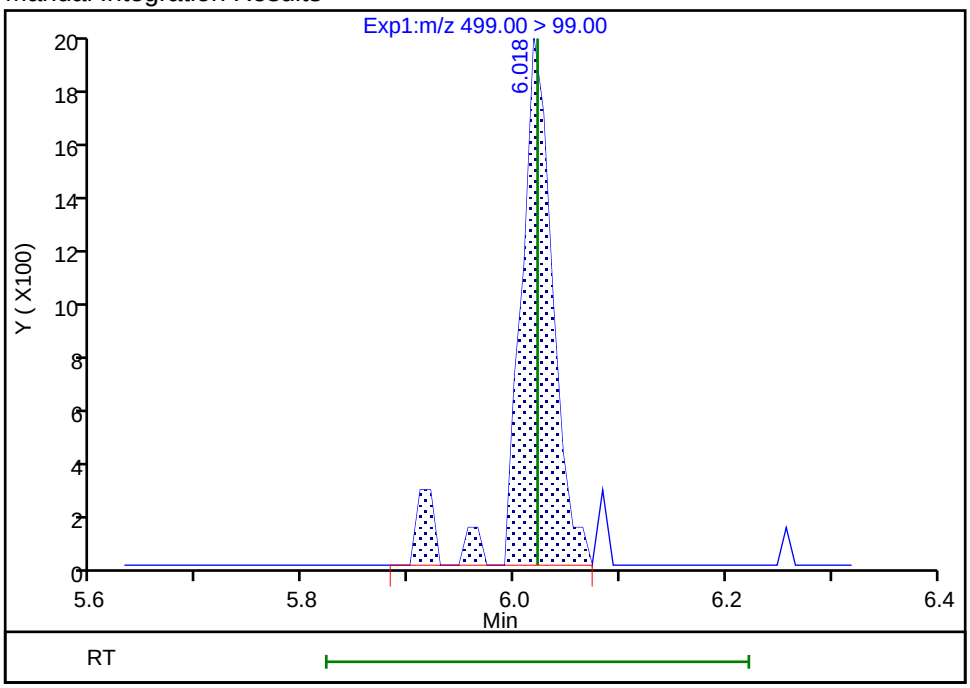
Processing Integration Results

Not Detected
Expected RT: 6.02



Manual Integration Results

RT: 6.02
Area: 4380
Amount: 0.212021
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:04:05
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

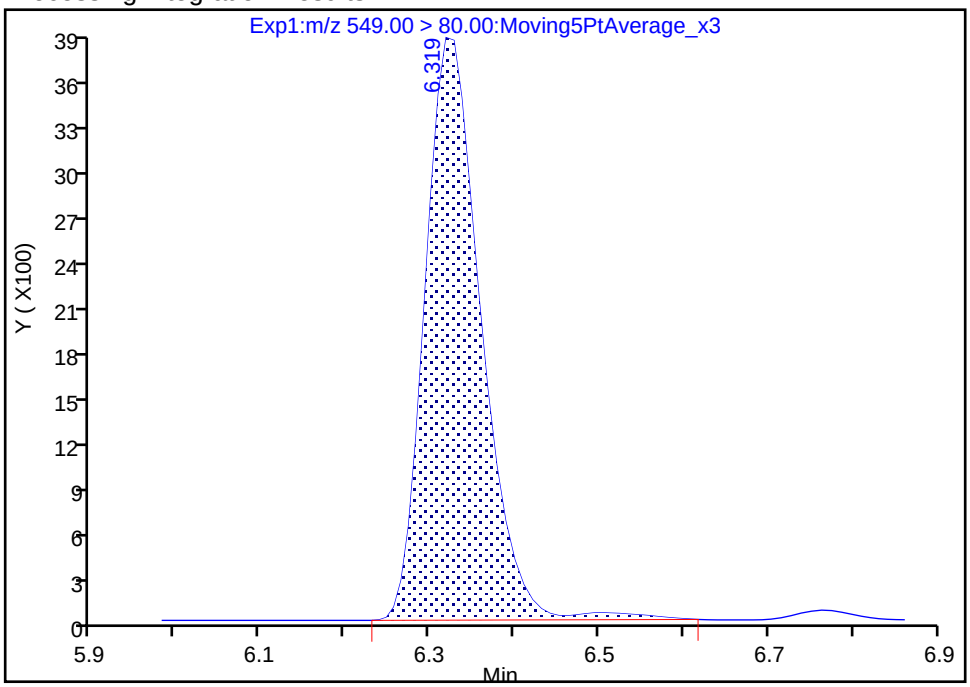
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

52 Perfluorononanesulfonic acid, CAS: 68259-12-1

Signal: 1

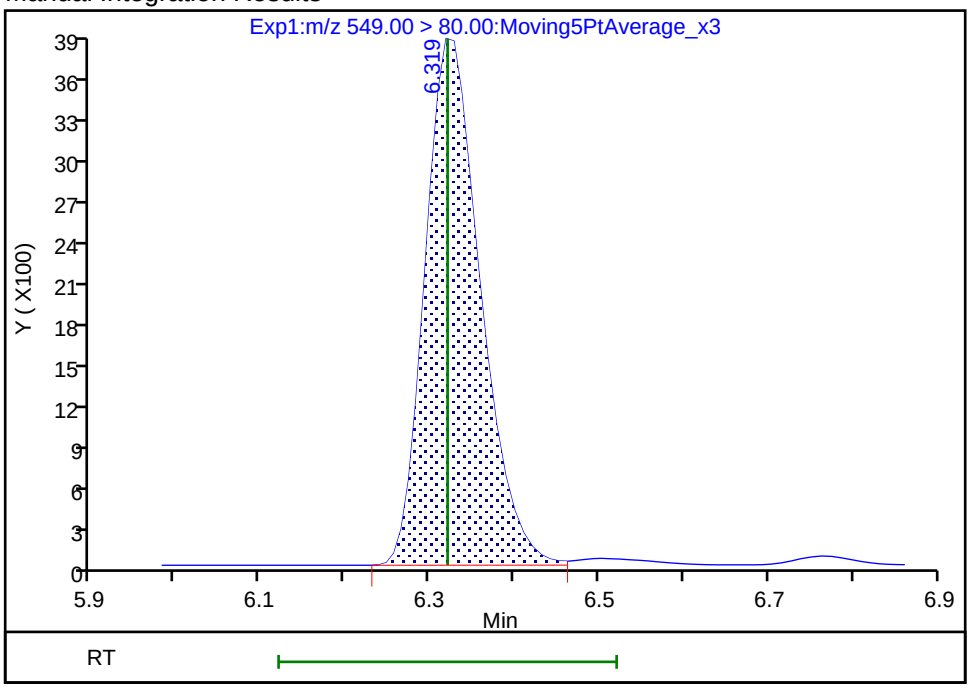
Processing Integration Results

RT: 6.32
Area: 17570
Amount: 0.197937
Amount Units: ng/ml



Manual Integration Results

RT: 6.32
Area: 17337
Amount: 0.195710
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:13:59

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

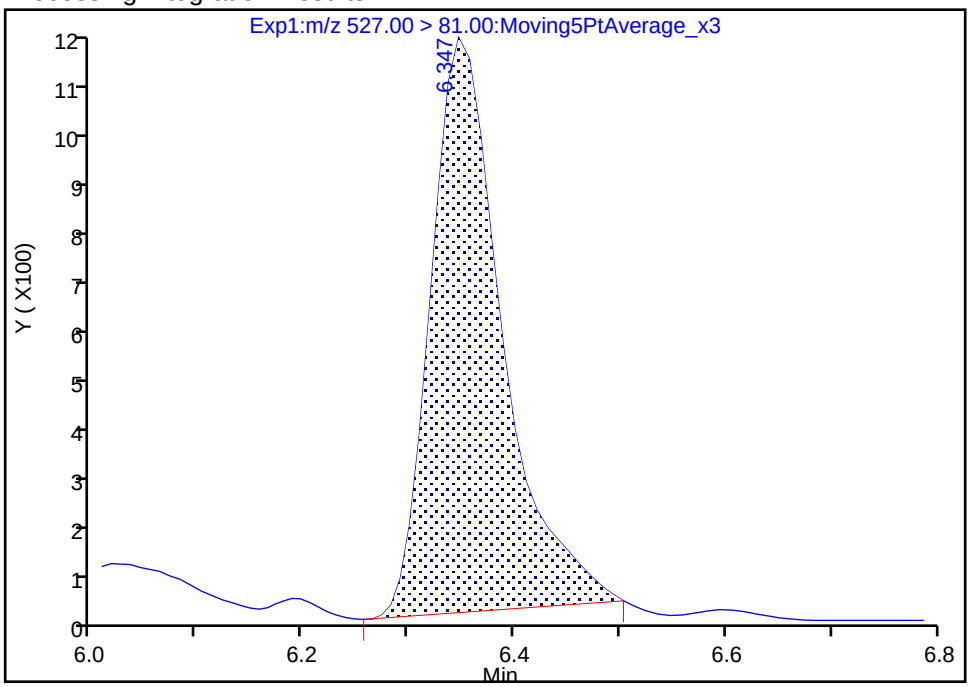
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

56 8:2 FTS, CAS: 39108-34-4

Signal: 2

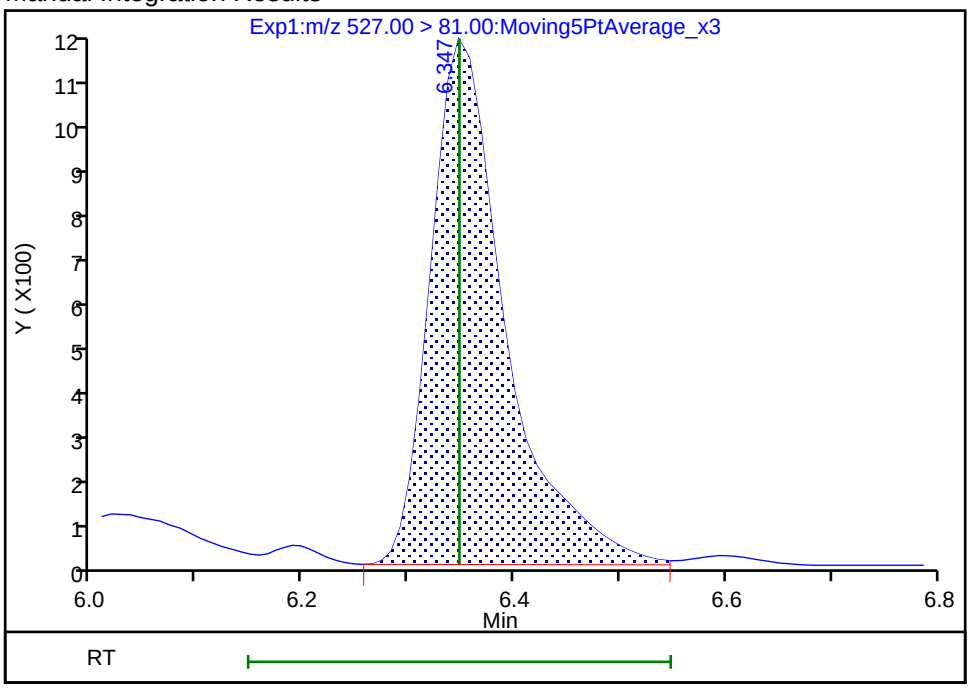
Processing Integration Results

RT: 6.35
Area: 5536
Amount: 0.209773
Amount Units: ng/ml



Manual Integration Results

RT: 6.35
Area: 5876
Amount: 0.209773
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:20:09

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

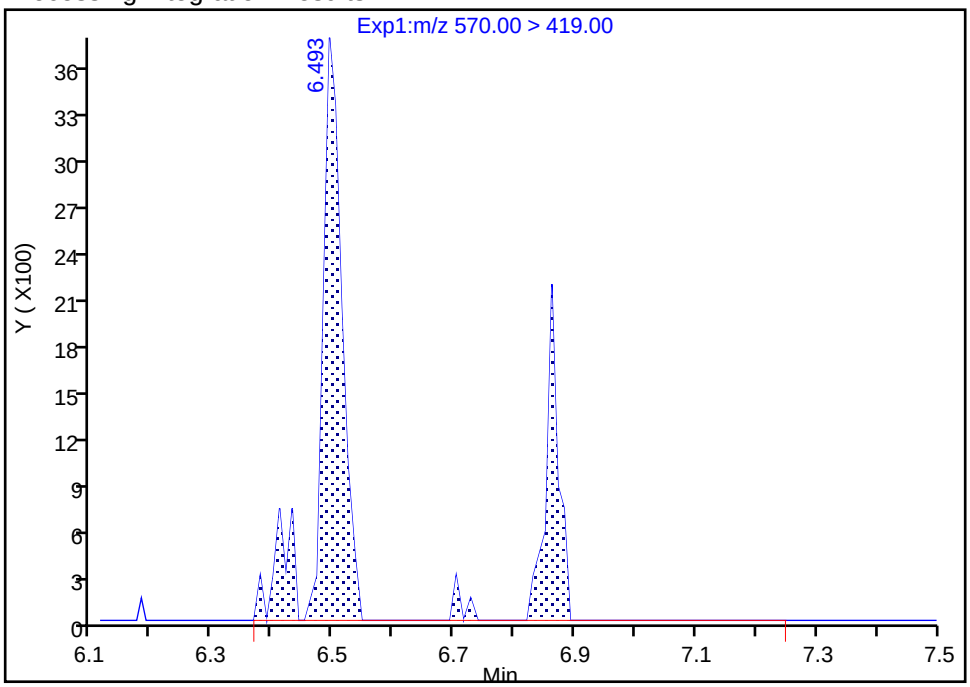
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

60 NMeFOSAA, CAS: 2355-31-9

Signal: 1

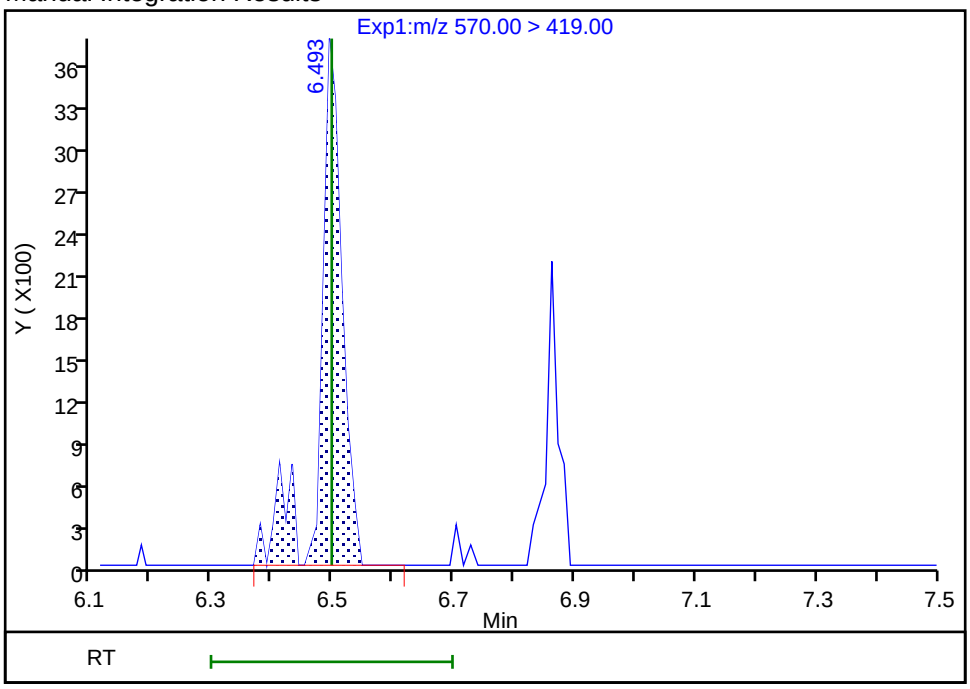
Processing Integration Results

RT: 6.49
Area: 12696
Amount: 0.238849
Amount Units: ng/ml



Manual Integration Results

RT: 6.49
Area: 9334
Amount: 0.188642
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:20:15

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

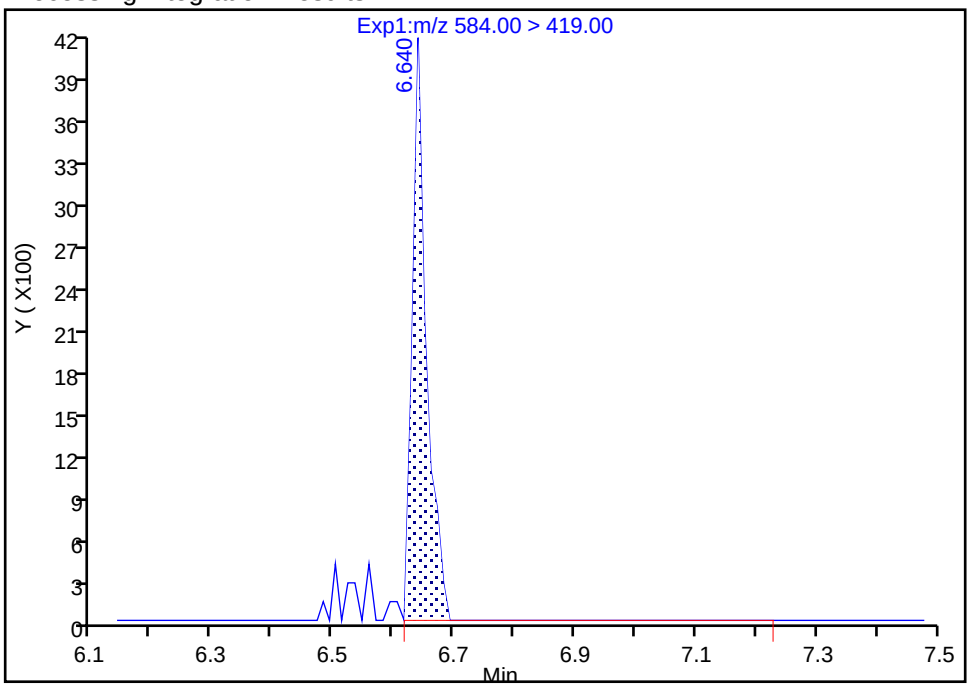
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

67 NEtFOSAA, CAS: 2991-50-6

Signal: 1

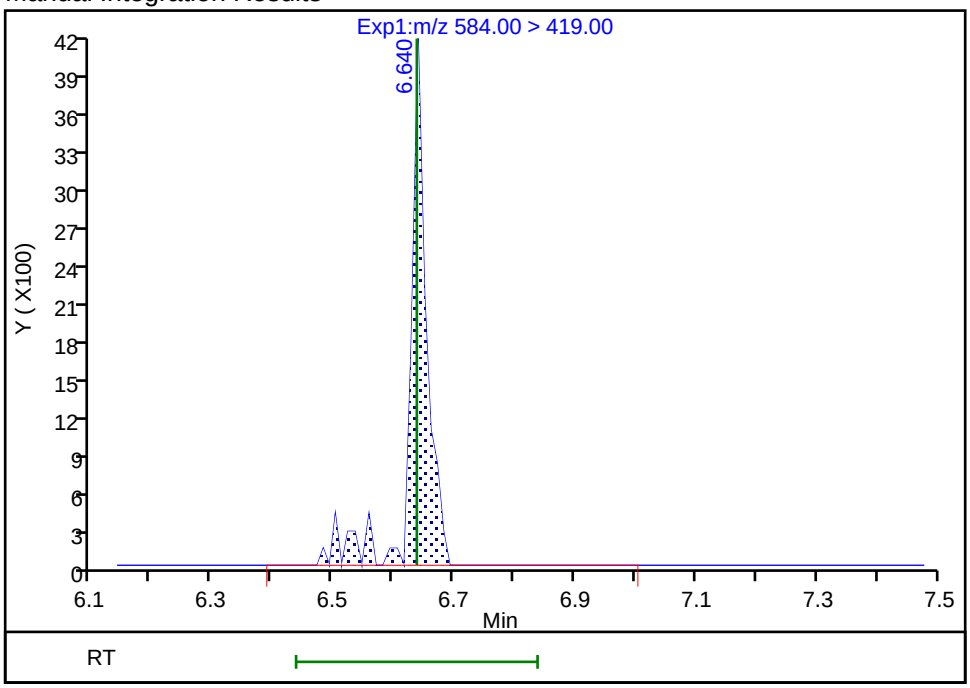
Processing Integration Results

RT: 6.64
Area: 6741
Amount: 0.178616
Amount Units: ng/ml



Manual Integration Results

RT: 6.64
Area: 7909
Amount: 0.203273
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:20:22

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

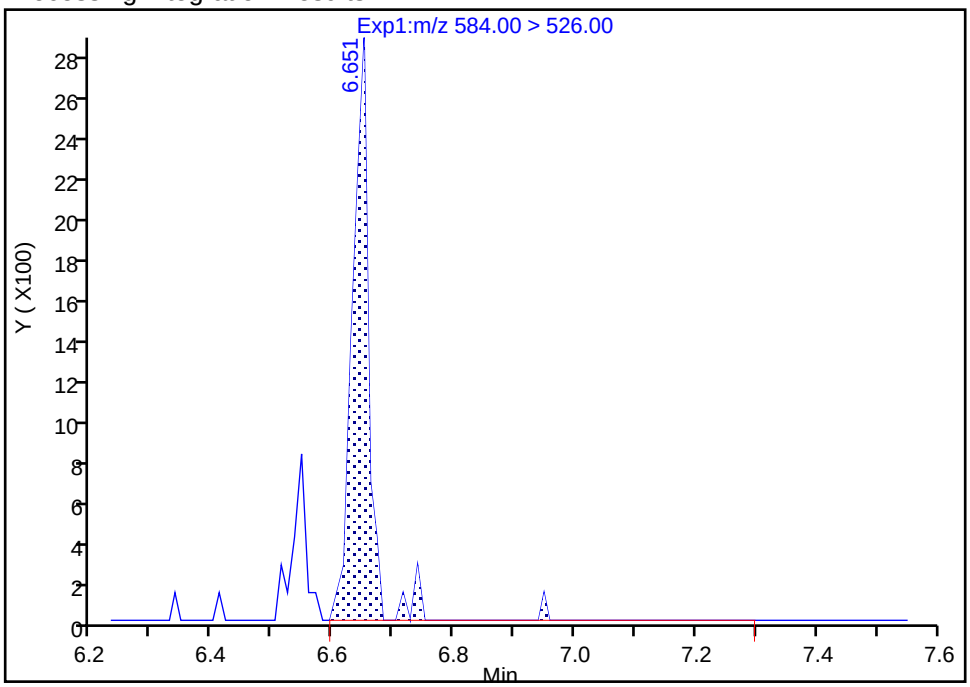
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

67 NEtFOSAA, CAS: 2991-50-6

Signal: 2

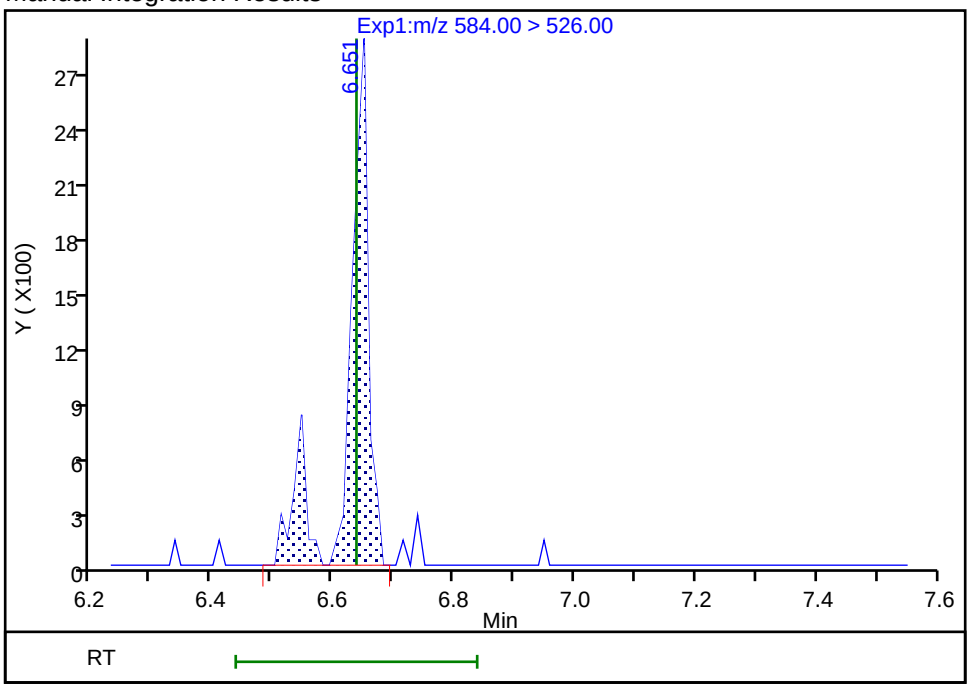
Processing Integration Results

RT: 6.65
Area: 5511
Amount: 0.178616
Amount Units: ng/ml



Manual Integration Results

RT: 6.65
Area: 6441
Amount: 0.203273
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:20:27

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

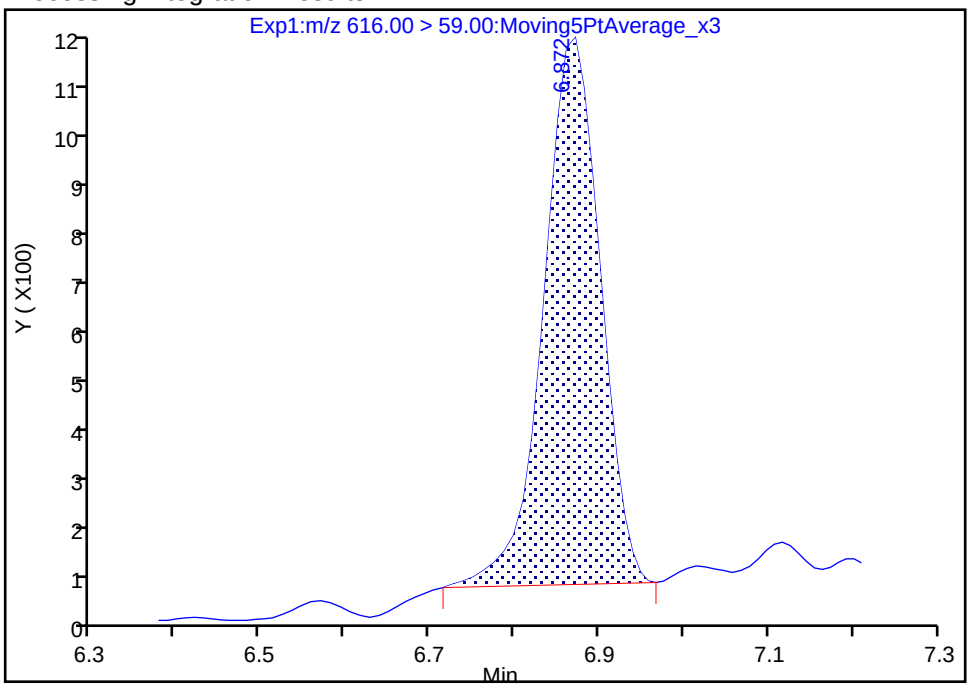
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

77 N-MeFOSE-M, CAS: 24448-09-7

Signal: 1

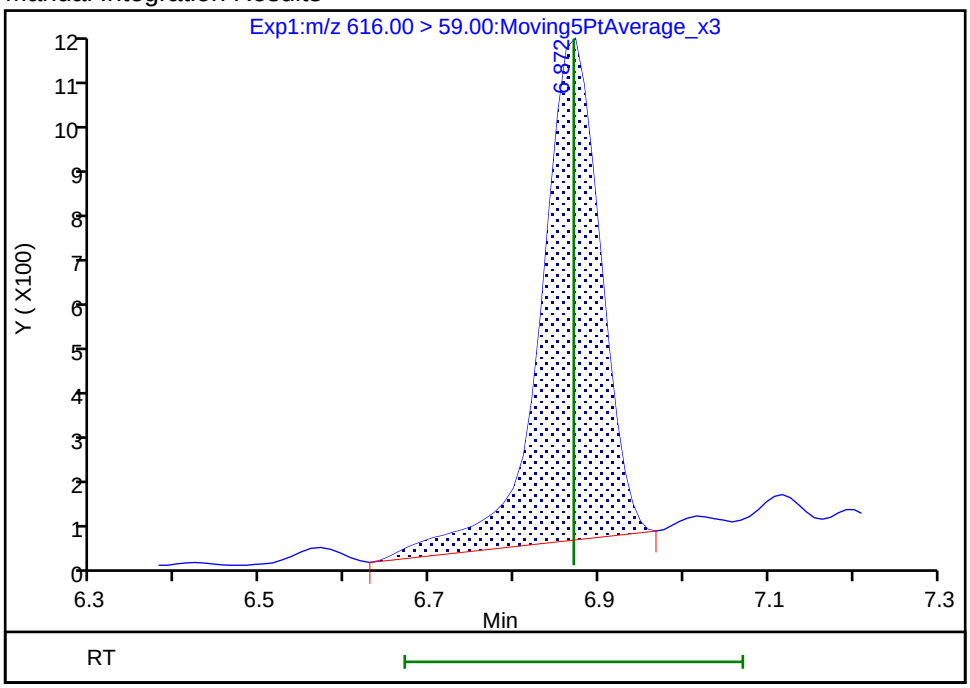
Processing Integration Results

RT: 6.87
Area: 5048
Amount: 0.179246
Amount Units: ng/ml



Manual Integration Results

RT: 6.87
Area: 5471
Amount: 0.192204
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:16:10

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

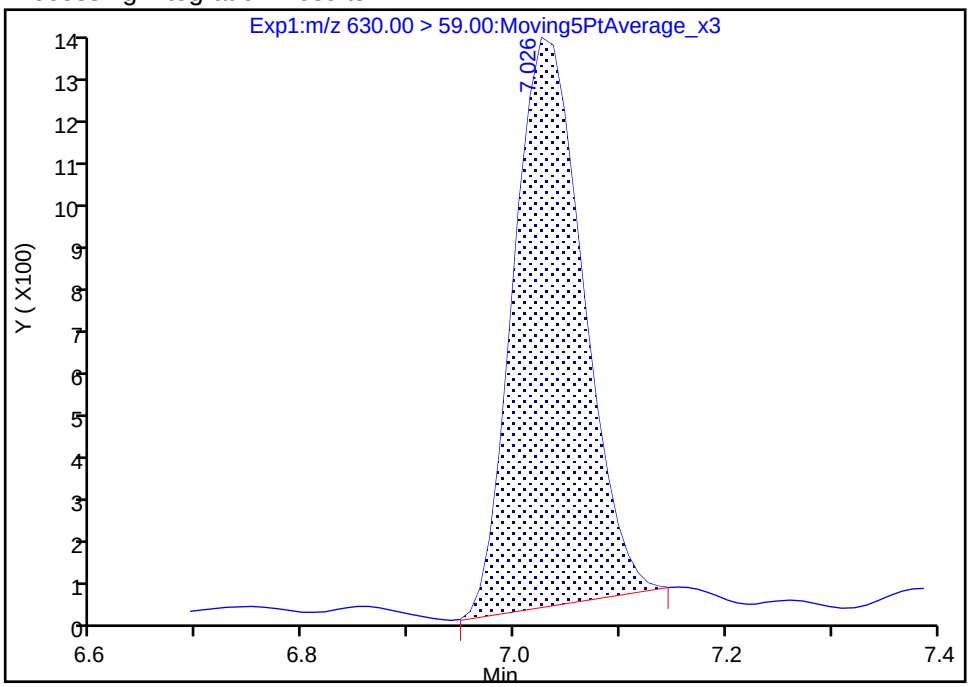
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

82 N-EtFOSE-M, CAS: 1691-99-2

Signal: 1

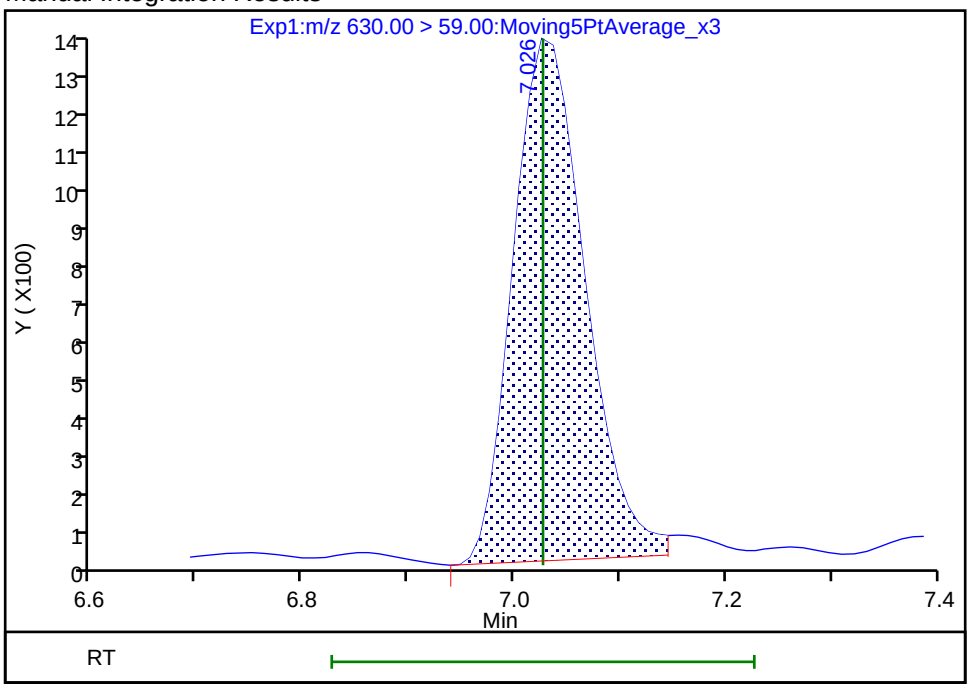
Processing Integration Results

RT: 7.03
Area: 5802
Amount: 0.187323
Amount Units: ng/ml



Manual Integration Results

RT: 7.03
Area: 6078
Amount: 0.194993
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:15:30

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

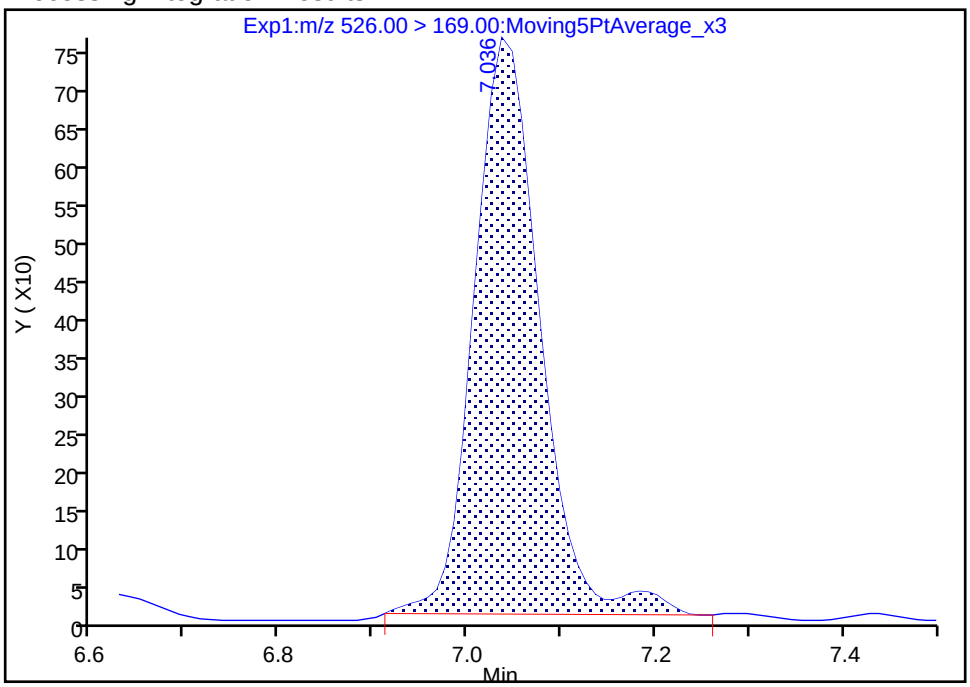
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-01.d				
Injection Date:	22-Feb-2022 15:12:04	Instrument ID:	30733		
Lims ID:	IC CAL1				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20002	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

84 N-EtFOSA-M, CAS: 4151-50-2

Signal: 1

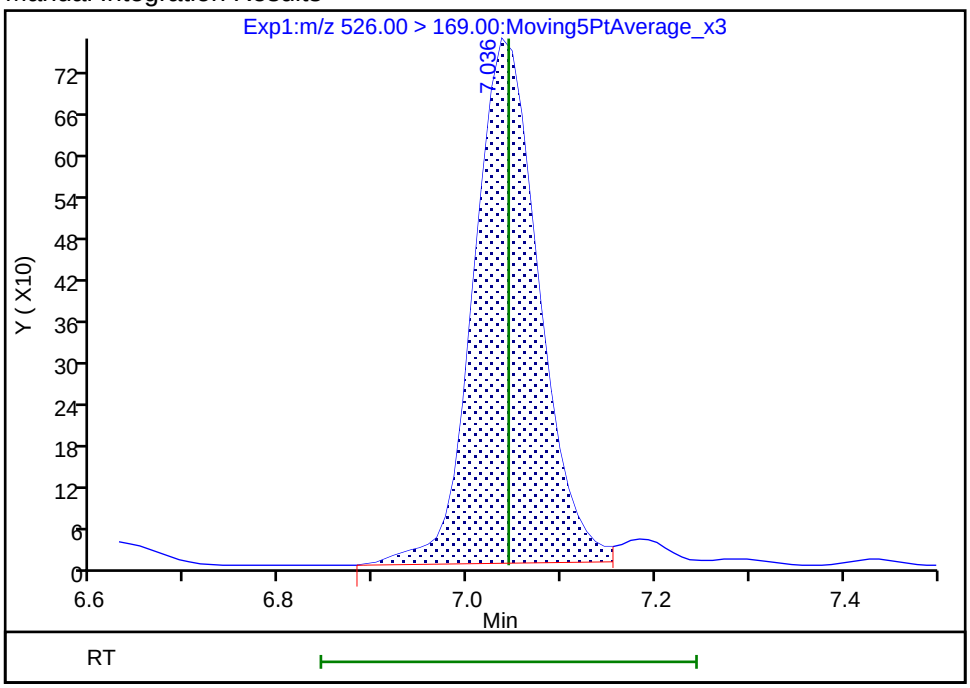
Processing Integration Results

RT: 7.04
Area: 3677
Amount: 0.212422
Amount Units: ng/ml



Manual Integration Results

RT: 7.04
Area: 3663
Amount: 0.211756
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:15:57

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d
Lims ID: IC CAL2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 22-Feb-2022 15:23:09 ALS Bottle#: 20003 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL2
Misc. Info.: Plate: 1 Rack: 1 410-0050930-002
Operator ID: US19_USR_INS20260 Instrument ID: 30733
Sublist: chrom-PFAS_30733_XList_2*sub1

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 10:04:44 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1604

First Level Reviewer: fellenbauma Date: 22-Feb-2022 20:45:36
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										M
175.00 > 97.00	1.486	1.481	0.005	0.373	4458	0.4363		87.3	157	M
1 PPF Acid										
163.00 > 119.00	1.837	1.838	-0.001	0.462	37374	0.4555		91.1	437	
96 PFMOAA										M
179.00 > 85.00	2.955	2.948	0.007	0.742	23637	0.4717		94.3	278	M
100 R-PSDA										M
441.00 > 241.00	3.964	3.955	0.009	0.863	1403	0.4233		84.7	97.3	M
99 R-EVE										M
405.00 > 217.00	3.964	3.957	0.007	0.996	5985	0.4660		93.2	312	M
105 Hydrolyzed PSDA										
439.00 > 343.00	3.981	3.972	0.009	0.867	8807	0.5282		106	549	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.981	3.977	0.004	1.000	75807	0.4828		96.6	1378	
* 4 13C3-PFBA										
216.00 > 172.00	3.990	3.979	0.011		731651	5.00			1649	
D 3 13C4 PFBA										
217.00 > 172.00	3.981	3.977	0.004	0.998	1665382	10.2		102	123633	
102 PMPA										
229.00 > 185.00	4.108	4.105	0.003	1.032	33662	0.4635		92.7	586	
5 PFPrS										
249.00 > 99.00	4.170	4.165	0.005	1.048	18707	0.4897		107	1287	
103 NVHOS										
297.00 > 135.00	4.212	4.199	0.013	0.918	15006	0.4929		98.6	1045	
6 PFECA F										
229.00 > 85.00	4.233	4.225	0.008	1.063	73696	0.4930		98.6	15430	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 PFO2HxA										
245.00 > 85.00	4.424	4.411	0.013	1.111	23610	0.4683		93.7	1663	
7 Perfluoropentanoic acid										
263.00 > 219.00	4.534	4.522	0.012	1.000	70370	0.4978		99.6	2294	
9 3:3 FTCA										
241.00 > 177.00	4.534	4.525	0.009	1.000	4672	0.5118		102	341	
D 8 13C5 PFPeA										
268.00 > 223.00	4.534	4.529	0.005	1.136	1362341	9.69		96.9	76416	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.591	4.579	0.011	1.000	53481	0.4677	Target=3.22	106	4064	
299.00 > 99.00	4.581	4.579	0.002	0.998	14387		3.72(1.61-4.83)	106	1085	
D 11 13C3 PFBS										
302.00 > 80.00	4.591	4.580	0.010	1.150	994670	8.94		95.5	76565	
91 PEPA										
279.00 > 235.00	4.645	4.635	0.010	1.167	15539	0.5081		102	602	
12 PFECA A										
279.00 > 85.00	4.671	4.658	0.012	1.017	51223	0.5043		101	4253	
13 PES										
315.00 > 135.00	4.754	4.746	0.008	1.036	157624	0.4457		100	12730	
14 PFECA B										
201.00 > 85.00	4.889	4.877	0.012	1.065	59878	0.4801	Target=1.44	96.0	2129	
295.00 > 201.00	4.889	4.877	0.012	1.065	44544		1.34(0.72-2.15)	96.0	3203	
15 4:2 FTS										
327.00 > 307.00	4.918	4.907	0.011	1.000	31611	0.4721	Target=1.53	101	2320	
327.00 > 81.00	4.918	4.907	0.011	1.000	23763		1.33(0.77-2.30)	101	1652	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.918	4.907	0.011	0.861	200831	9.40		101	14539	
17 Perfluorohexanoic acid										M
313.00 > 269.00	4.960	4.946	0.014	1.000	72661	0.5204	Target=16.07	104	3132	
313.00 > 119.00	4.950	4.946	0.004	0.998	5571		13.04(8.04-24.11)	104	412	M
$ 18 13C2 PFHxA										
315.00 > 270.00	4.960	4.948	0.012	0.868	1256945	NC			68140	
D 19 13C5 PFHxA										
318.00 > 273.00	4.960	4.948	0.012	0.868	1665015	10.0		100	89953	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.970	4.961	0.009	1.083	48293	0.4811	Target=3.46	103	3497	
349.00 > 99.00	4.970	4.961	0.009	1.083	14368		3.36(1.73-5.19)	103	1053	
93 PFO3OA										
311.00 > 85.00	5.017	5.005	0.012	1.260	21705	0.4562		91.2	1625	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.089	5.077	0.012	0.890	235217	9.62		96.2	17598	
21 HFPO-DA										
329.00 > 285.00	5.089	5.074	0.015	1.000	24492	0.5443		109	1383	
97 Hydro-EVE Acid										
427.00 > 283.00	5.295	5.286	0.009	1.330	103977	0.4938		98.8	251	
94 R-PSDCA										
397.00 > 217.00	5.295	5.289	0.006	1.153	121055	0.4784		95.7	8343	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.347	5.335	0.012	1.000	96485	0.4714	Target=3.65	94.3	4327	
363.00 > 169.00	5.347	5.335	0.012	1.000	27701		3.48(1.82-5.47)	94.3	1997	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.347	5.335	0.012	1.000	48659	0.4126	Target=3.59	90.5	167	
399.00 > 99.00	5.347	5.335	0.012	1.000	14155		3.44(1.79-5.38)	90.5	30.4	
D 25 13C3 PFHxS										
402.00 > 80.00	5.347	5.335	0.012	0.936	1026465	10.0		106	76618	
D 24 13C4 PFHpA										
367.00 > 322.00	5.347	5.336	0.011	0.936	2025681	11.0		110	150617	
106 Hydro-PS Acid										M
463.00 > 263.00	5.295	5.307	-0.012	1.153	95837	0.4791		95.8	20314	M
27 DONA										
377.00 > 251.00	5.391	5.381	0.010	1.008	102255	0.3962		83.9	8089	
98 PFECA G										
379.00 > 185.00	5.416	5.399	0.017	1.361	108666	0.4504		90.1	8768	
28 5:3 FTCA										M
341.00 > 237.00	5.424	5.414	0.010	1.014	19346	0.4738	Target=50.84	94.8	1121	M
339.00 > 295.00	5.414	5.414	0.0	0.000	0		0.00(25.42-76.26)	94.8		
29 6:2 FTUCA										
357.00 > 293.00	5.449	5.438	0.011	1.000	124778	0.5613		112	10171	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.449	5.439	0.010	0.954	1636105	10.2		102	97695	
32 6:2 FTCA										M
377.00 > 293.00	5.466	5.456	0.010	1.000	8177	0.5143		103	483	M
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.466	5.456	0.010	0.956	150753	10.3		103	11871	
95 PFO4DA										
377.00 > 85.00	5.528	5.513	0.015	1.389	26183	0.4751		95.0	663	
104 PS Acid										
443.00 > 147.00	5.561	5.552	0.009	1.211	31009	0.4880		97.6	2547	
90 EVE Acid										
407.00 > 263.00	5.586	5.573	0.013	1.403	75989	0.4719		94.4	5921	
33 PFECHS										
461.00 > 381.00	5.648	5.640	0.008	1.056	84882	0.4402	Target=1.94	95.3	6294	
461.00 > 99.00	5.648	5.640	0.008	1.056	42131		2.01(0.97-2.91)	95.3	3082	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.696	5.685	0.011	1.065	48460	0.4399	Target=3.50	92.4	3575	
449.00 > 99.00	5.696	5.685	0.011	1.065	15224		3.18(1.75-5.24)	92.4	1160	
34 6:2 FTS										
427.00 > 407.00	5.696	5.685	0.011	1.000	19705	0.4655	Target=1.31	98.2	1484	
427.00 > 81.00	5.696	5.685	0.011	1.000	15369		1.28(0.65-1.96)	98.2	1138	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.696	5.686	0.010	0.997	89171	10.1		106	6455	
$ 39 13C4 PFOA										
417.00 > 372.00	5.715	5.704	0.011	1.000	2031560	NC			113329	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 38 13C2 PFOA										
415.00 > 370.00	5.715	5.704	0.011		768992	5.00			57199	
D 37 13C8 PFOA										
421.00 > 376.00	5.715	5.704	0.011	1.000	2171325	10.7		107	97339	
40 Perfluorooctanoic acid										M
413.00 > 369.00	5.715	5.704	0.011	1.000	77536	0.4670	Target=2.48	93.4	8435	M
413.00 > 169.00	5.706	5.704	0.002	0.998	28646		2.71(1.24-3.72)	93.4	57.8	M
101 TAF										
443.00 > 85.00	5.962	5.947	0.015	1.498	23594	0.4799		96.0	1848	
43 Perfluorooctanesulfonic acid										M
499.00 > 80.00	6.033	6.022	0.011	1.000	49421	0.4436	Target=4.38	95.9	114	M
499.00 > 99.00	6.024	6.022	0.002	0.998	12549		3.94(2.19-6.57)	95.9	32.0	M
* 42 13C4 PFOS										
503.00 > 80.00	6.033	6.023	0.010		472483	4.78			35133	
D 41 13C8 PFOS										
507.00 > 80.00	6.033	6.023	0.010	1.000	999904	10.0		105	32502	
44 Perfluorononanoic acid										
463.00 > 419.00	6.052	6.041	0.011	1.000	80357	0.4890	Target=4.84	97.8	3546	
463.00 > 169.00	6.052	6.041	0.011	1.000	18192		4.42(2.42-7.25)	97.8	1034	
D 45 13C9 PFNA										
472.00 > 427.00	6.052	6.041	0.011	1.003	1774852	10.7		107	100736	
46 7:3 FTCA										
441.00 > 337.00	6.157	6.144	0.013	1.126	24105	0.4851		97.0	1854	
47 8:2 FTUCA										
457.00 > 393.00	6.164	6.150	0.014	1.000	115136	0.4872		97.4	9272	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.164	6.155	0.009	0.968	2217146	10.3		103	135597	
49 8:2 FTCA										
477.00 > 393.00	6.179	6.169	0.010	1.000	5881	0.4326		86.5	487	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.179	6.169	0.010	0.971	144916	10.1		101	11860	
51 9ClFOS										
531.00 > 351.00	6.203	6.193	0.010	1.028	74445	0.3916		84.2	4536	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.335	6.321	0.014	1.050	45254	0.4333	Target=4.28	90.3	3382	
549.00 > 99.00	6.325	6.321	0.004	1.048	9785		4.62(2.14-6.42)	90.3	695	
53 Perfluorodecanoic acid										M
513.00 > 469.00	6.355	6.344	0.011	0.998	101366	0.5411	Target=10.44	108	3581	
513.00 > 169.00	6.355	6.344	0.011	0.998	9664		10.49(5.22-15.66)	108	681	M
D 54 13C6 PFDA										
519.00 > 474.00	6.365	6.348	0.017	1.000	1913566	9.88		98.8	133623	
* 55 13C2 PFDA										
515.00 > 470.00	6.365	6.346	0.019		973055	5.00			67894	
56 8:2 FTS										M
527.00 > 507.00	6.355	6.348	0.007	0.998	17959	0.4583	Target=1.54	95.7	1263	
527.00 > 81.00	6.355	6.348	0.007	0.998	11160		1.61(0.77-2.31)	95.7	767	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 57 M2-8:2 FTS										
529.00 > 81.00	6.365	6.354	0.011	1.000	48573	9.20		96.0	3398	
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.429	6.419	0.010	0.998	93779	0.5149		103	6478	
D 59 13C8 FOSA										
506.00 > 78.00	6.440	6.425	0.015	1.012	1812715	9.90		99.0	125295	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.501	6.494	0.007	1.021	625846	9.58		95.8	42160	
60 NMeFOSAA										
570.00 > 419.00	6.511	6.497	0.014	1.002	25478	0.4938	Target=1.64	98.8	14.6	
570.00 > 483.00	6.501	6.497	0.004	1.000	16487		1.55(0.82-2.46)	98.8	35.9	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.603	6.590	0.013	1.094	50217	0.4628	Target=4.07	96.0	3277	
599.00 > 99.00	6.603	6.590	0.013	1.094	12178		4.12(2.03-6.10)	96.0	816	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.626	6.618	0.008	0.998	84599	0.4689	Target=8.63	93.8	2361	
563.00 > 169.00	6.626	6.618	0.008	0.998	9643		8.77(4.31-12.94)	93.8	641	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.638	6.623	0.015	1.161	1651354	NC			109920	
D 65 13C7 PFUnA										
570.00 > 525.00	6.638	6.623	0.015	1.043	2043920	10.9		109	135180	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.649	6.635	0.014	1.045	469078	10.3		103	31349	
67 NEtFOSAA										
584.00 > 419.00	6.649	6.638	0.011	1.000	19135	0.4575	Target=1.31	91.5	46.1	
584.00 > 526.00	6.649	6.638	0.011	1.000	15581		1.23(0.66-1.97)	91.5	20.8	
68 10:2 FTUCA										
557.00 > 493.00	6.737	6.723	0.014	1.000	85979	0.5273		105	5499	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.737	6.725	0.012	1.058	1594897	9.83		98.3	101693	
69 11ClFOS										
631.00 > 451.00	6.737	6.725	0.012	1.117	59971	0.4303		92.5	3870	
71 10:2 FTCA										
577.00 > 493.00	6.749	6.735	0.014	1.000	5090	0.5043		101	326	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.749	6.741	0.008	1.060	81904	10.2		102	5200	
73 Perfluorododecanoic acid										M
613.00 > 569.00	6.870	6.857	0.013	1.000	70326	0.5130	Target=5.13	103	5090	
613.00 > 169.00	6.860	6.857	0.003	0.999	13296		5.29(2.56-7.69)	103	961	M
D 74 13C2-PFDoDA										
615.00 > 570.00	6.870	6.858	0.012	1.079	1346766	9.65		96.5	73627	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.870	6.863	0.007	1.079	278264	9.59		95.9	9985	
77 N-MeFOSE-M										
616.00 > 59.00	6.880	6.870	0.010	1.001	15125	0.5086		102	829	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
75 10:2 FTS										
627.00 > 607.00	6.891	6.874	0.017	1.083	15281	0.5881	Target=0.83	122	1145	
627.00 > 81.00	6.880	6.874	0.006	1.081	15553		0.98(0.42-1.25)	122	1156	
D 79 d3-NMePFOSA										
515.00 > 169.00	6.891	6.880	0.011	1.083	184624	9.89		98.9	2407	
78 NMeFOSA										
512.00 > 169.00	6.891	6.880	0.011	1.000	9330	0.4502		90.0	684	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.035	7.022	0.013	1.105	323332	9.75		97.5	13861	
82 N-EtFOSE-M										
630.00 > 59.00	7.035	7.027	0.008	1.000	16194	0.4813		96.3	875	
80 PFDoS										
699.00 > 80.00	7.045	7.030	0.015	1.168	46622	0.4662		96.3	3312	
84 N-EtFOSA-M										
526.00 > 169.00	7.056	7.044	0.012	1.000	9827	0.5263		105	695	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.056	7.042	0.014	1.108	176358	9.90		99.0	9480	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.066	7.057	0.009	1.029	52787	0.5249	Target=4.34	105	2849	
663.00 > 169.00	7.066	7.057	0.009	1.029	12108		4.36(2.17-6.51)	105	874	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.247	7.234	0.013	1.000	50413	0.5155	Target=5.08	103	2035	
713.00 > 169.00	7.247	7.234	0.013	1.000	10162		4.96(2.54-7.61)	103	688	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.247	7.235	0.012	1.139	1065880	9.04		90.4	53772	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.549	7.540	0.009	1.042	59464	0.5434	Target=9.01	109	3928	
813.00 > 169.00	7.549	7.540	0.009	1.042	7044		8.44(4.50-13.51)	109	616	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.783	7.773	0.010	1.074	24862	0.5461	Target=7.79	109	2796	
913.00 > 169.00	7.777	7.773	0.004	1.073	3005		8.27(3.89-11.68)	109	333	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD2_00012 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 10:04:46 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d

Injection Date: 22-Feb-2022 15:23:09 Instrument ID: 30733

Lims ID: IC CAL2

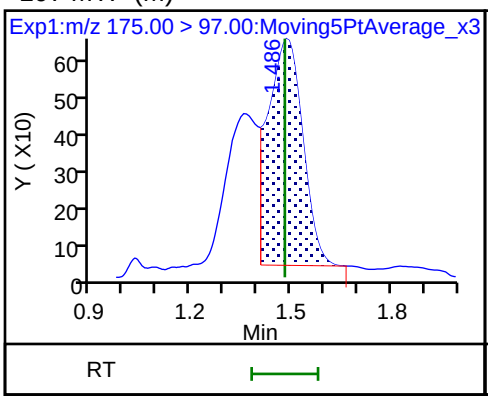
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20003 Worklist Smp#: 2

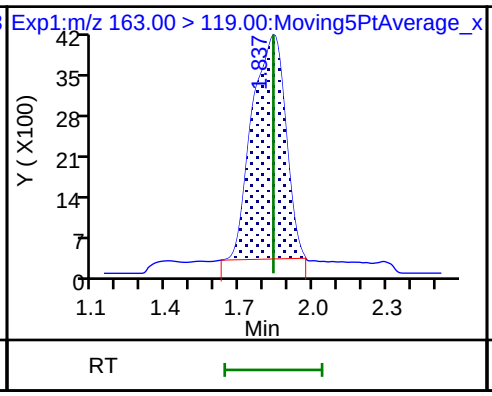
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

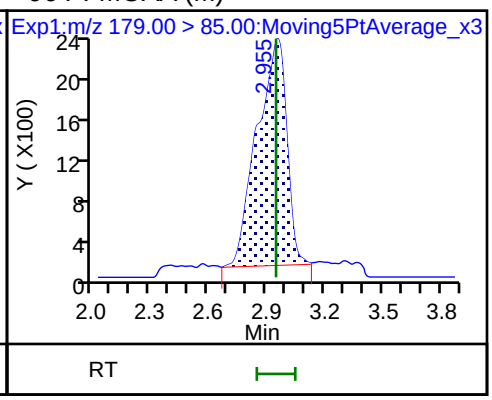
107 MTP (M)



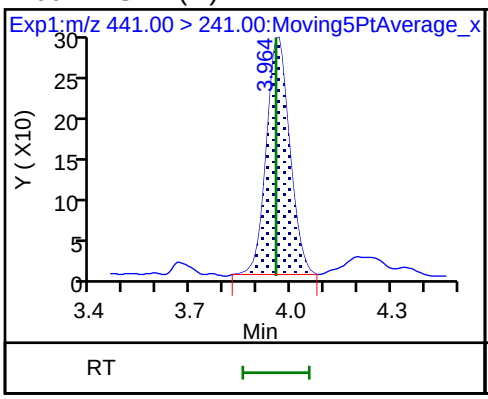
1 PPF Acid



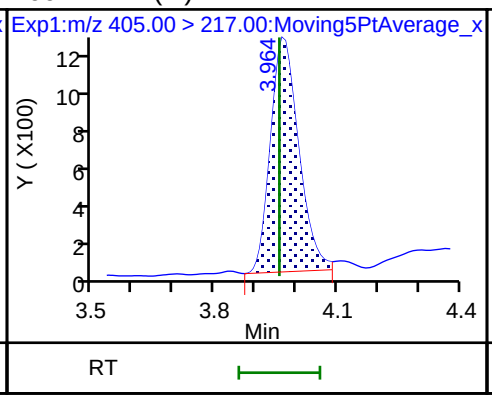
96 PFMOAA (M)



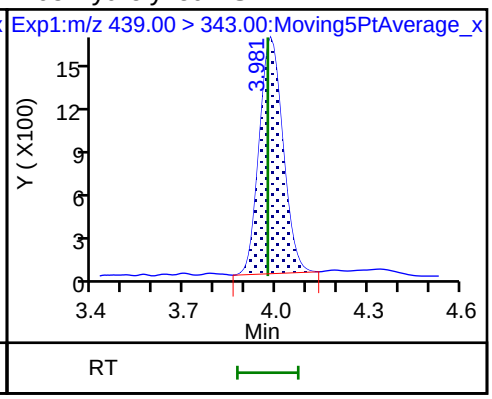
100 R-PSDA (M)



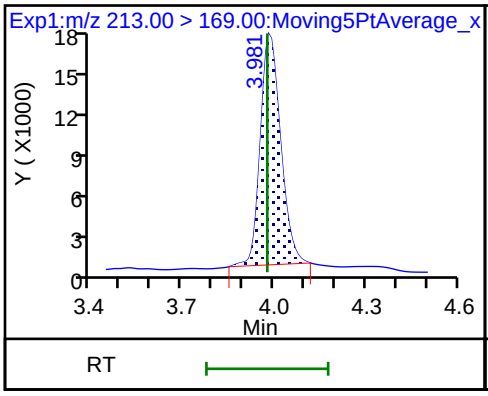
99 R-EVE (M)



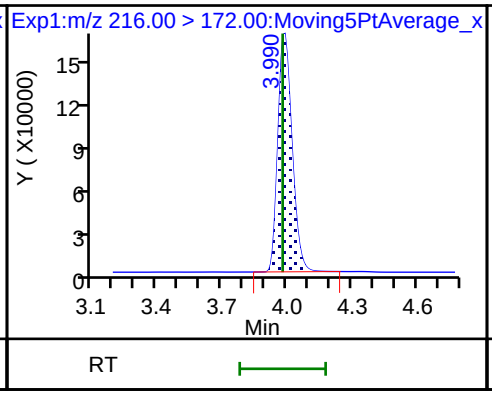
105 Hydrolyzed PSDA



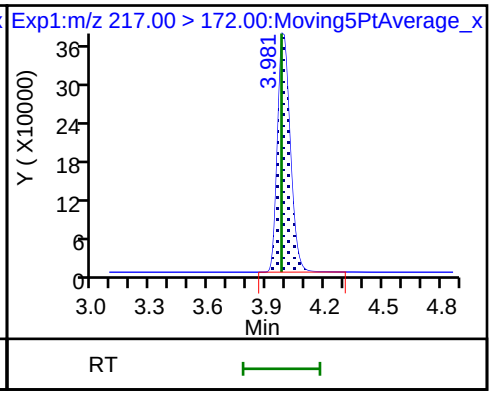
2 Perfluorobutanoic acid



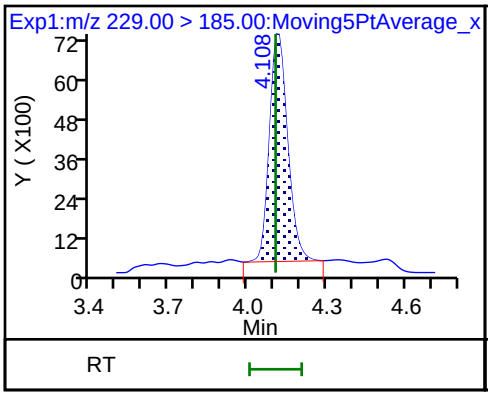
* 4 13C3-PFBA



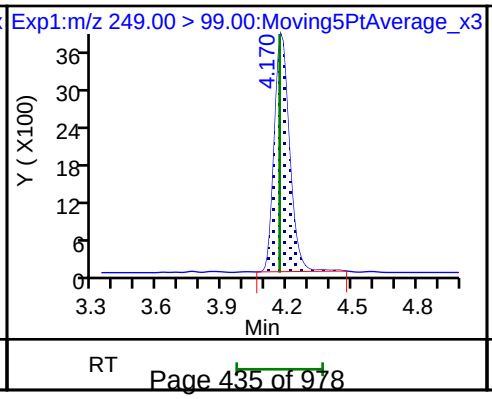
D 3 13C4 PFBA



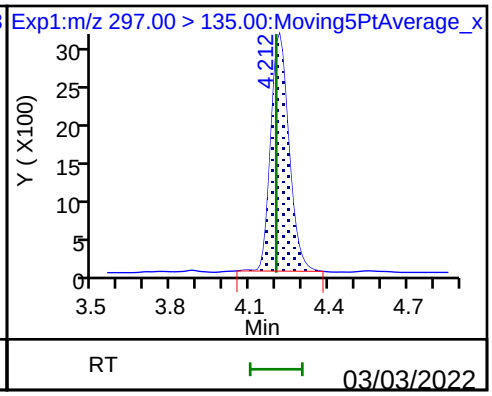
102 PMPA



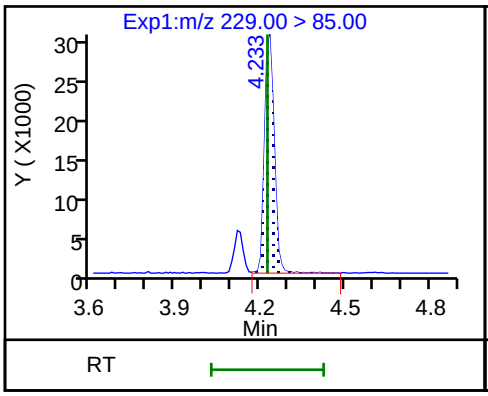
5 PFPrS



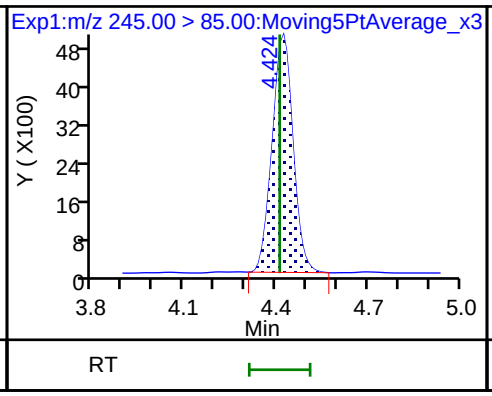
103 NVHOS



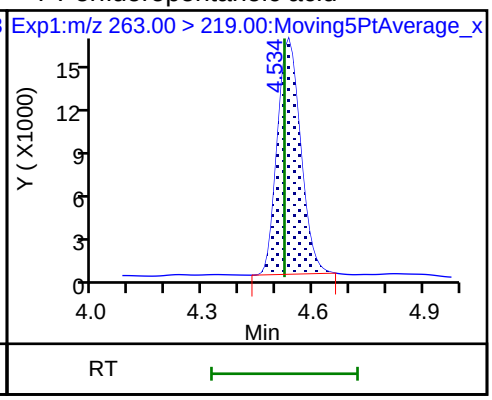
6 PFECA F



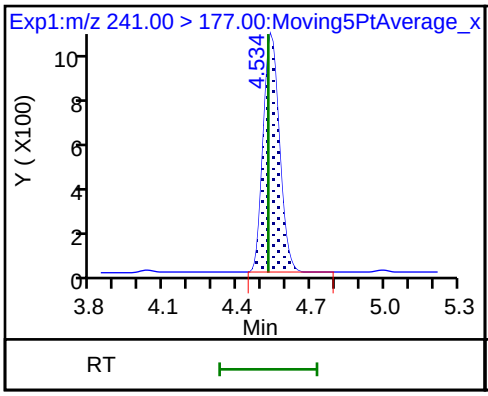
92 PFO2HxA



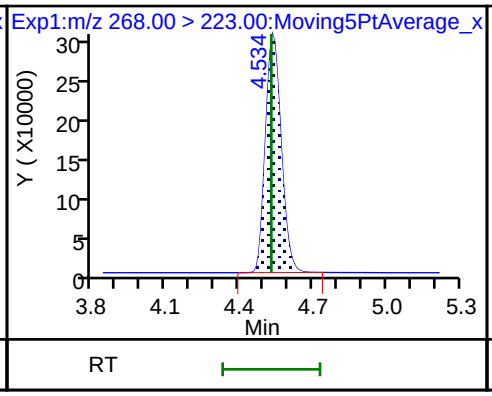
7 Perfluoropentanoic acid



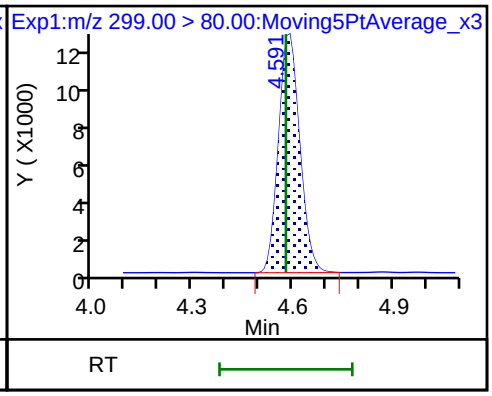
9 3:3 FTCA



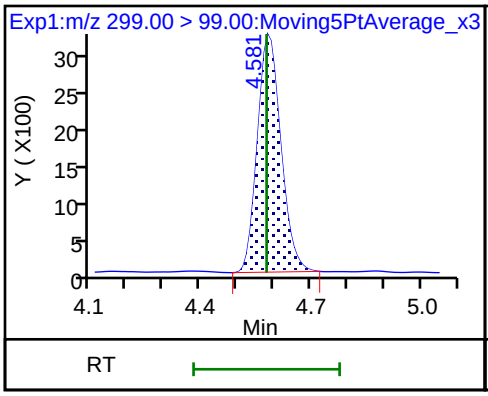
D 8 13C5 PFPeA



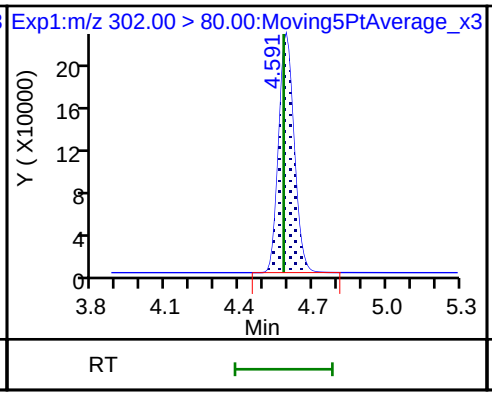
10 Perfluorobutanesulfonic acid



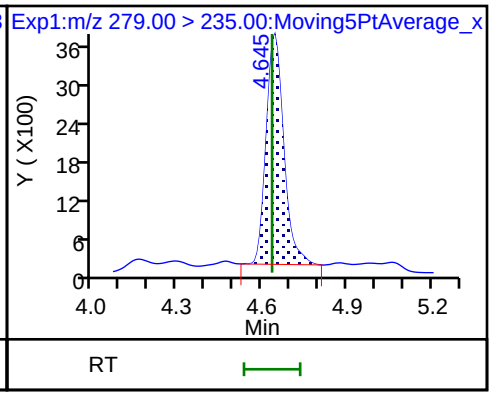
10 Perfluorobutanesulfonic acid



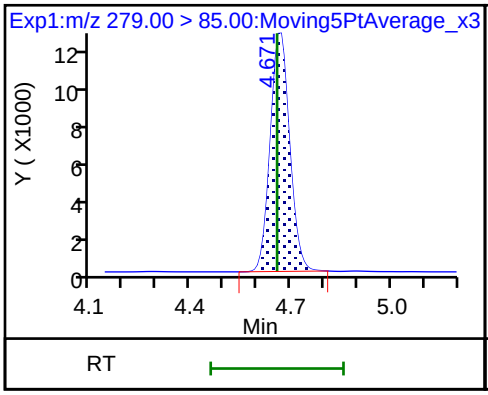
D 11 13C3 PFBS



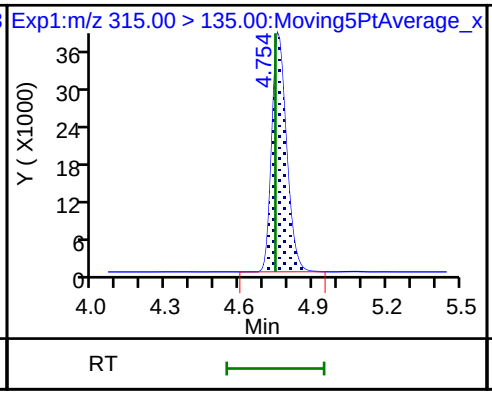
91 PEPA



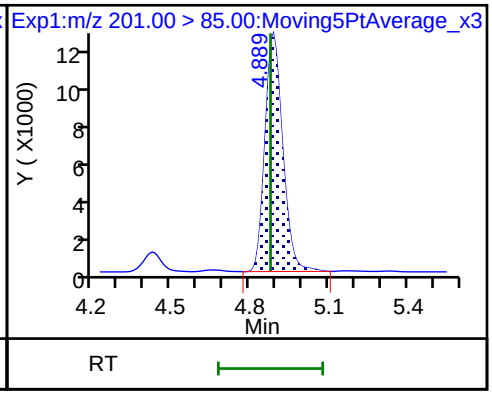
12 PFECA A



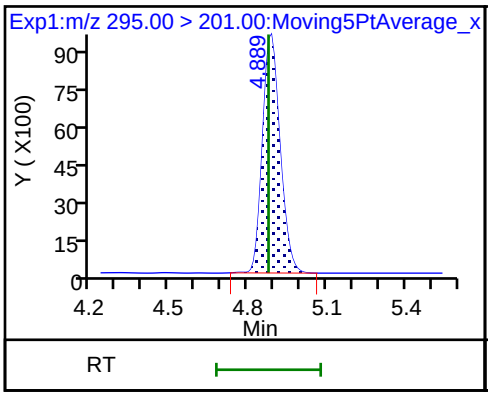
13 PES



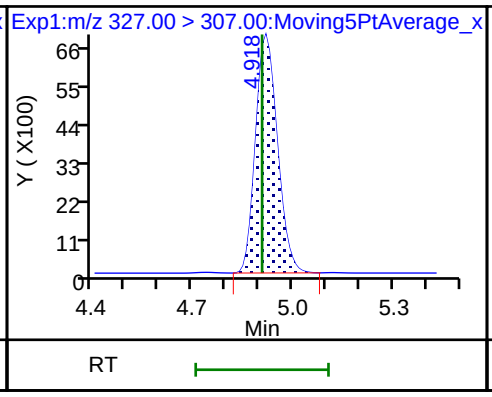
14 PFECA B



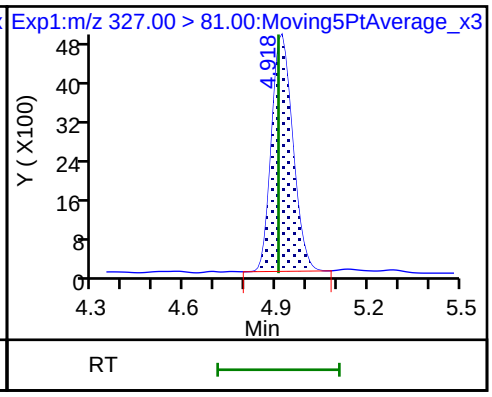
14 PFECA B



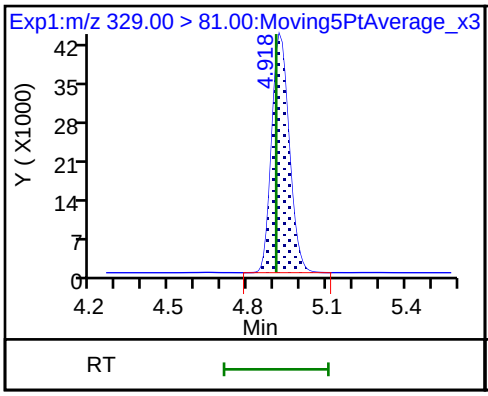
15 4:2 FTS



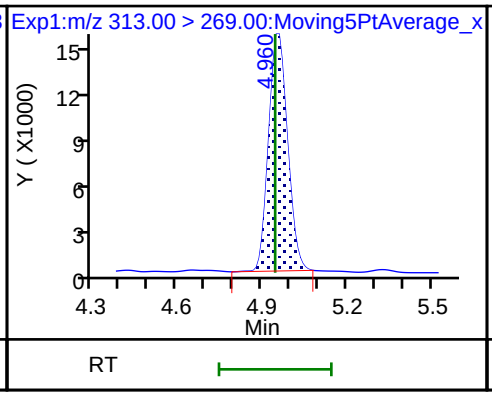
15 4:2 FTS



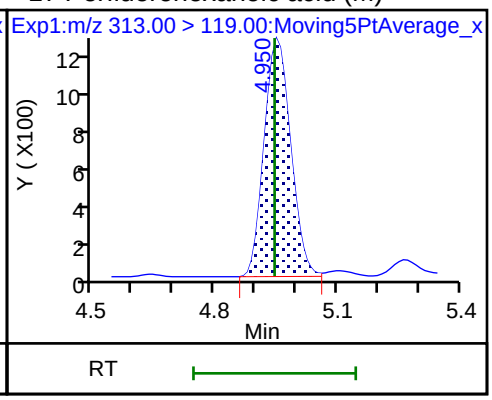
D 16 M2-4:2 FTS



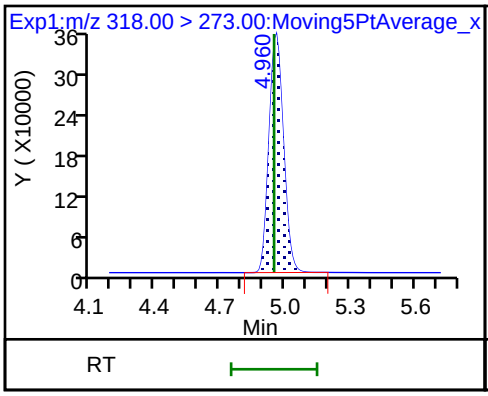
17 Perfluorohexanoic acid



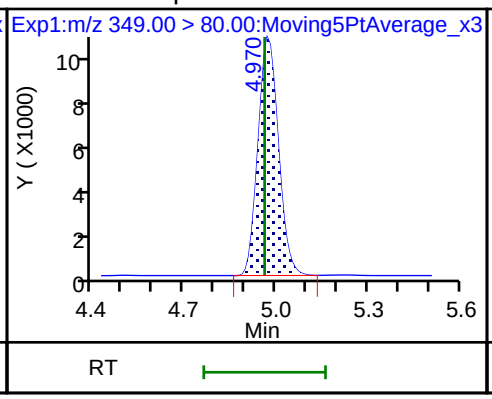
17 Perfluorohexanoic acid (M)



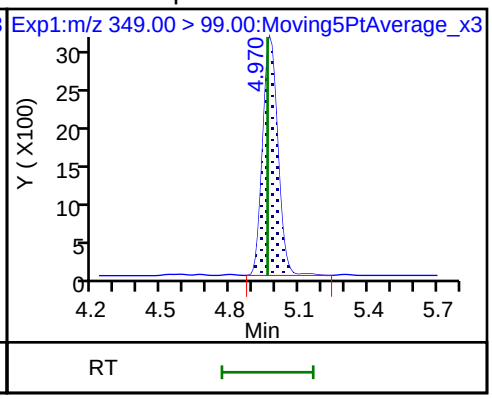
D 19 13C5 PFHxA



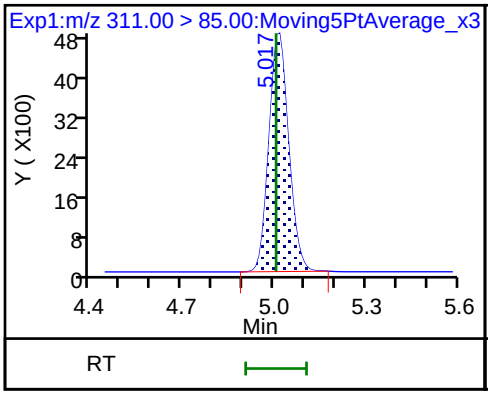
20 Perfluoropentanesulfonic acid



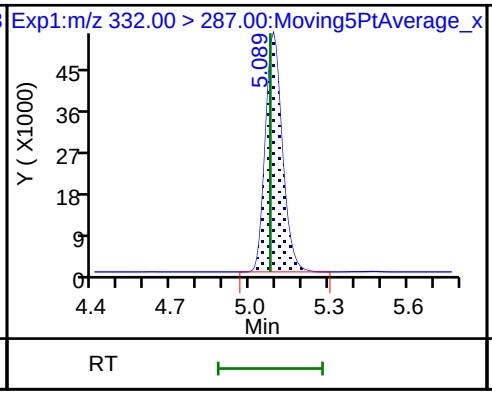
20 Perfluoropentanesulfonic acid



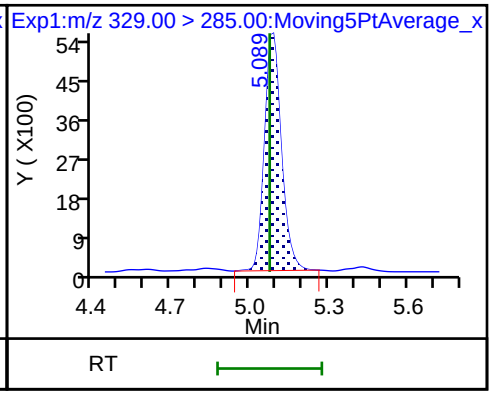
93 PFO3OA



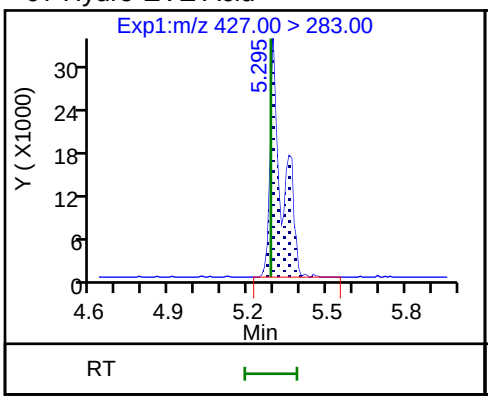
D 22 13C3 HFPO-DA



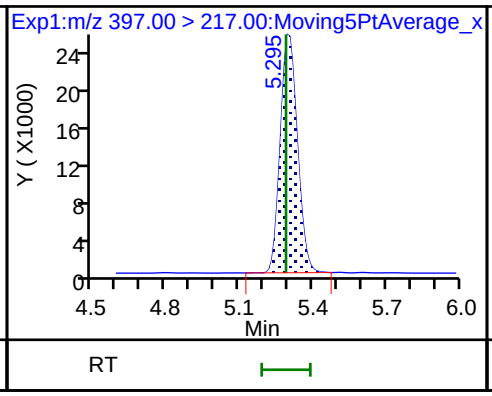
21 HFPO-DA



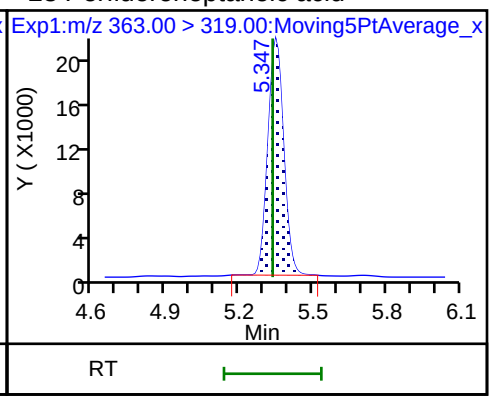
97 Hydro-EVE Acid



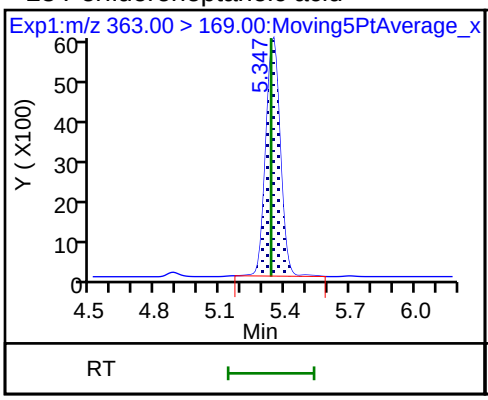
94 R-PSDCA



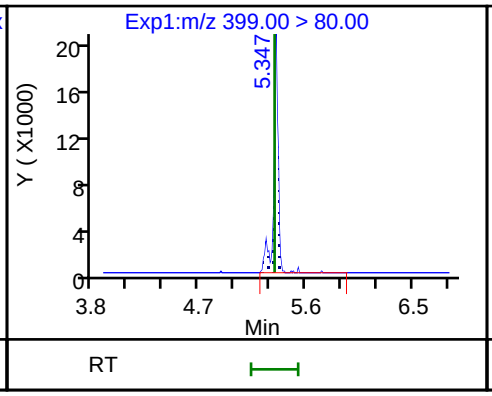
23 Perfluoroheptanoic acid



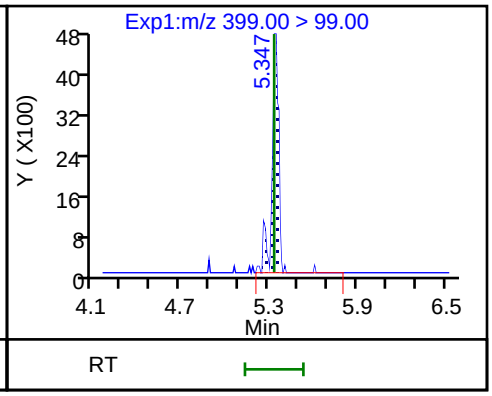
23 Perfluoroheptanoic acid



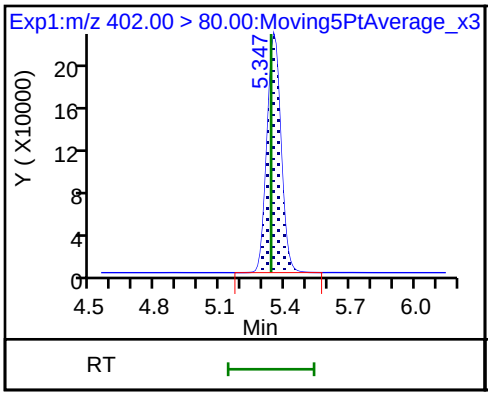
26 Perfluorohexanesulfonic acid



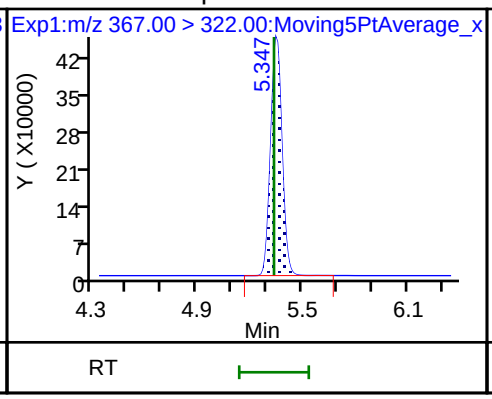
26 Perfluorohexanesulfonic acid



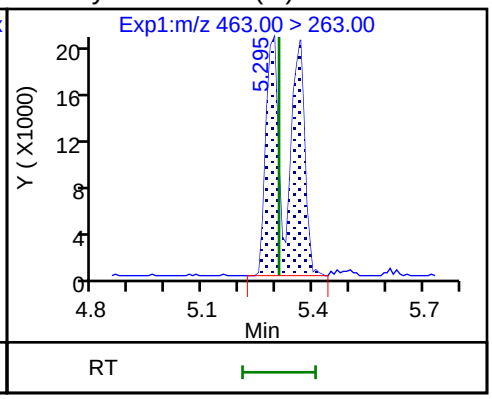
D 25 13C3 PFHxS



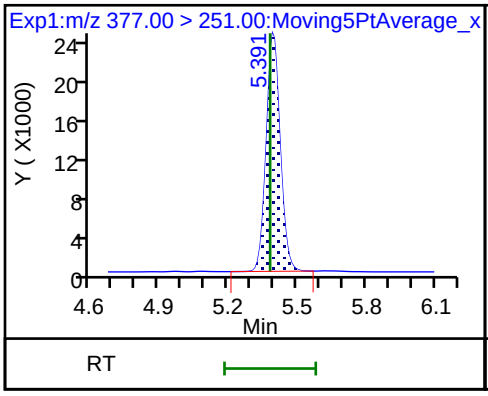
D 24 13C4 PFHpA



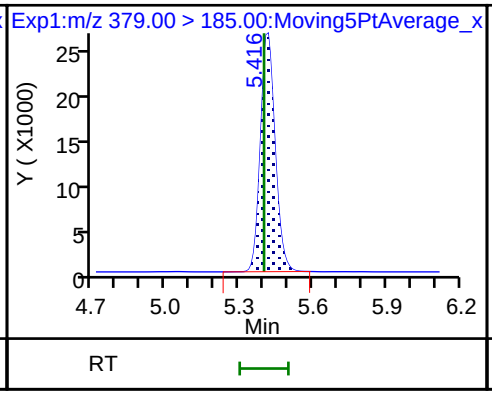
106 Hydro-PS Acid (M)



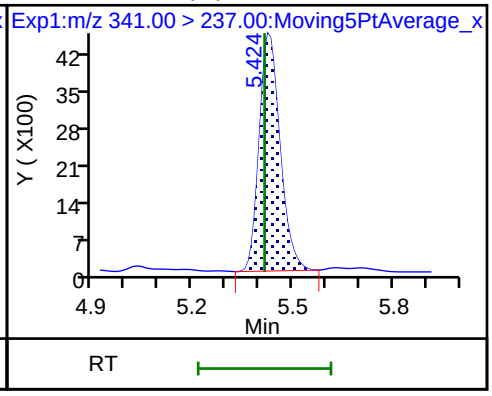
27 DONA



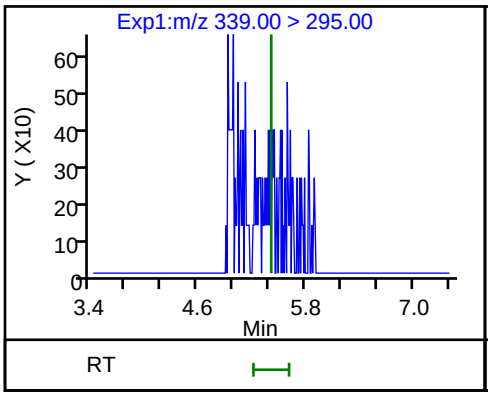
98 PFECA G



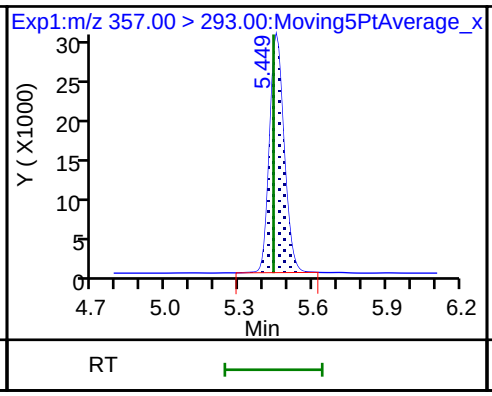
28 5:3 FTCA (M)



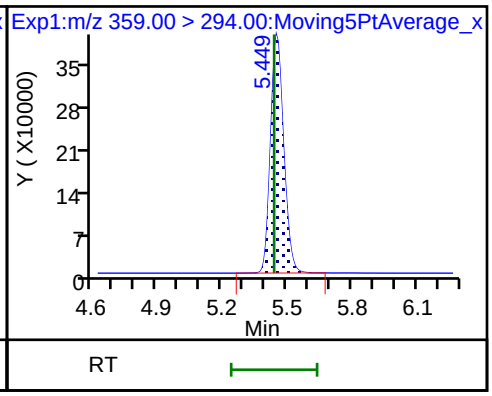
28 5:3 FTCA



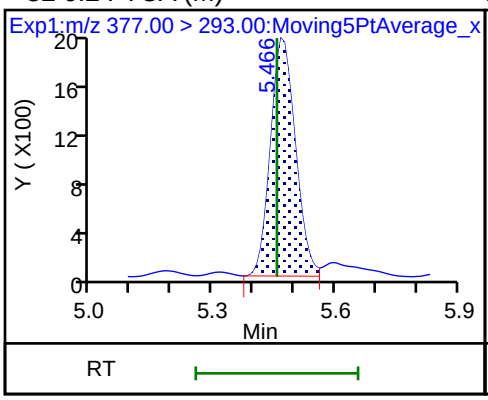
29 6:2 FTUCA



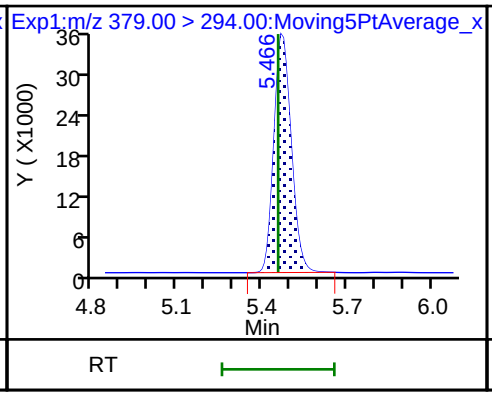
D 30 13C-6:2 FTUCA



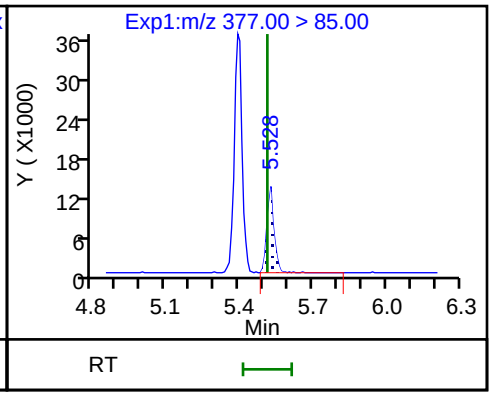
32 6:2 FTCA (M)



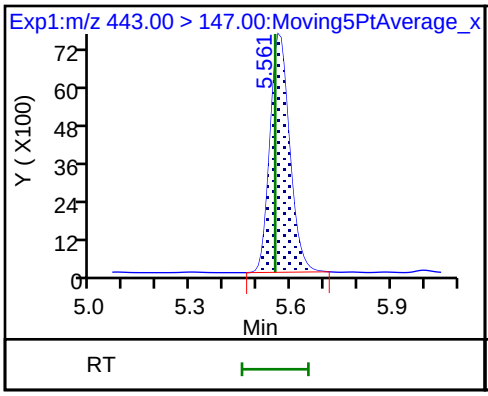
D 31 13C-6:2 FTCA



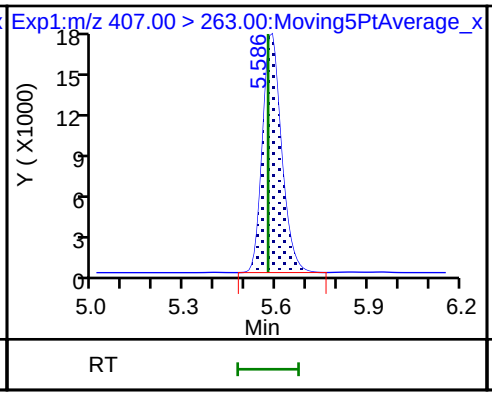
95 PFO4DA



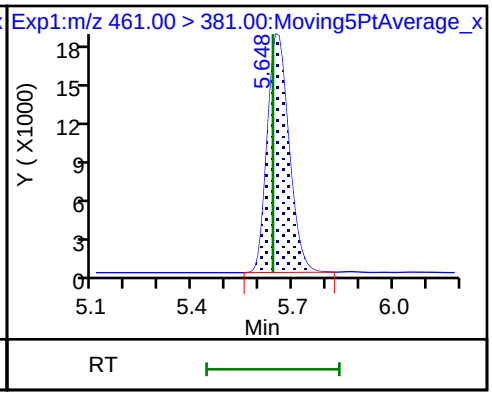
104 PS Acid



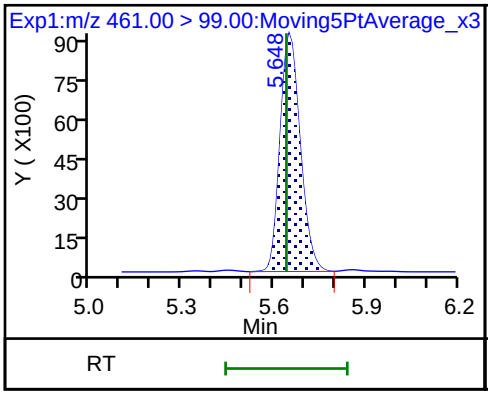
90 EVE Acid



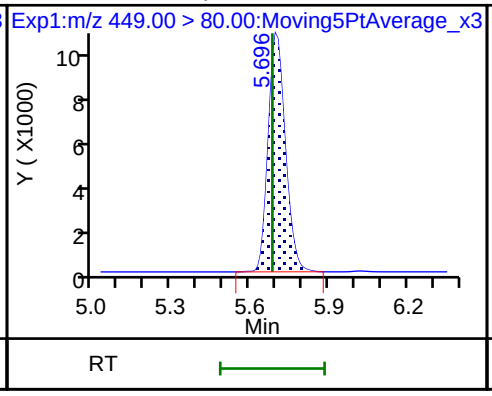
33 PFECHS



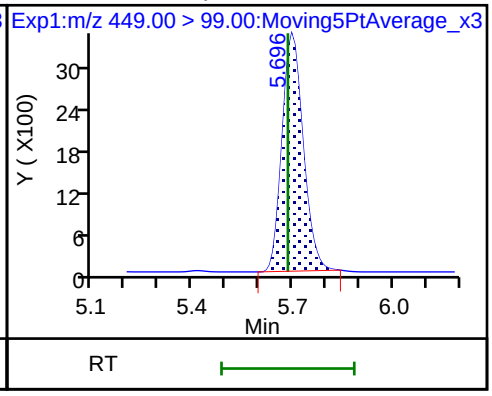
33 PFECHS



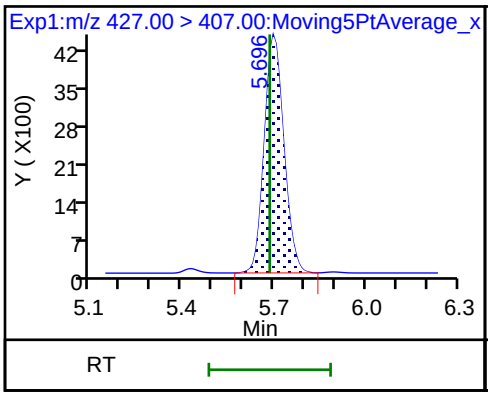
36 Perfluoroheptanesulfonic acid



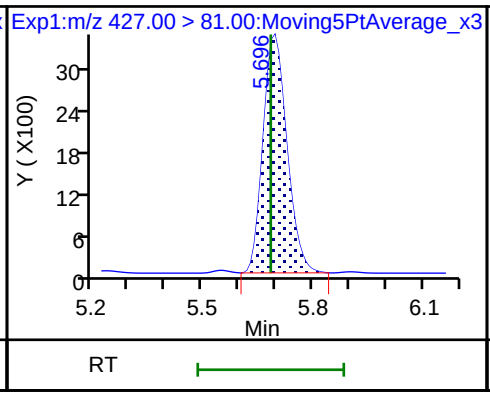
36 Perfluoroheptanesulfonic acid



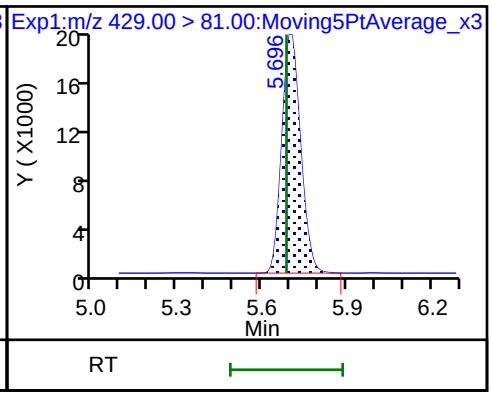
34 6:2 FTS



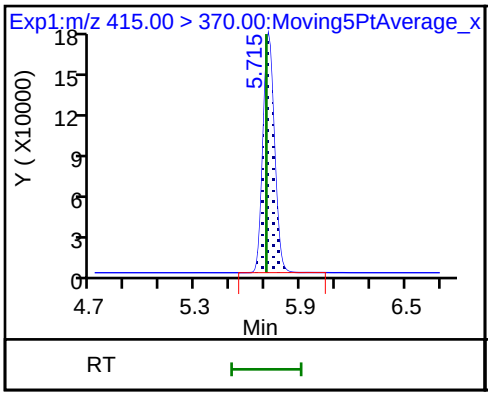
34 6:2 FTS



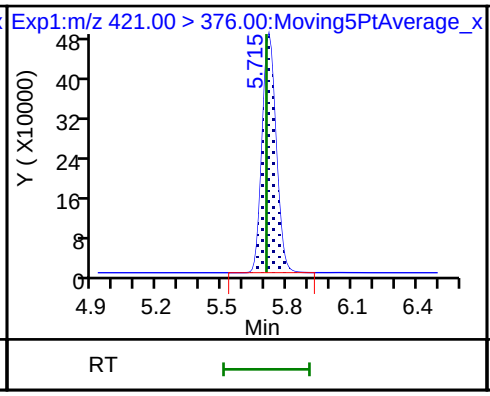
D 35 M2-6:2 FTS



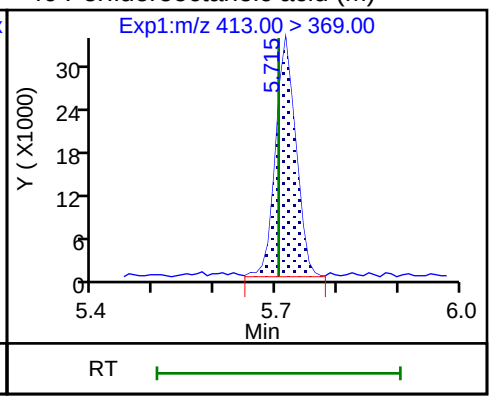
* 38 13C2 PFOA



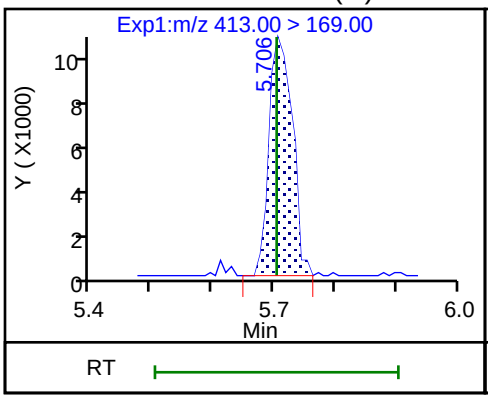
D 37 13C8 PFOA



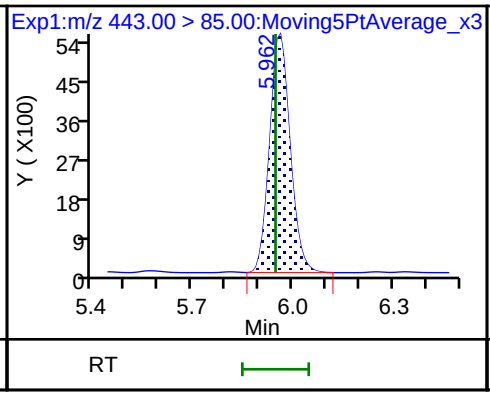
40 Perfluorooctanoic acid (M)



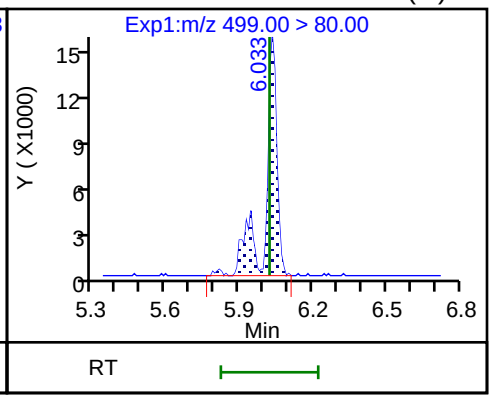
40 Perfluorooctanoic acid (M)



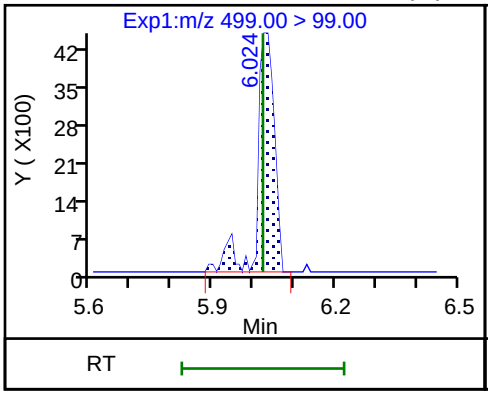
101 TAF



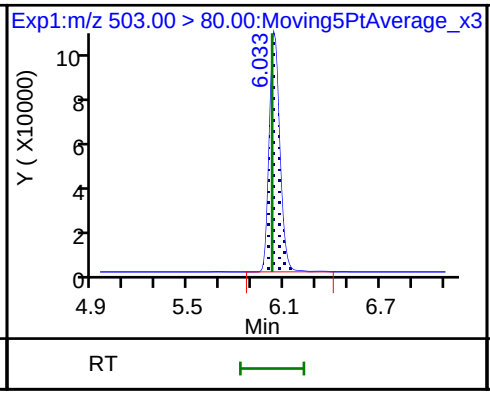
43 Perfluorooctanesulfonic acid (M)



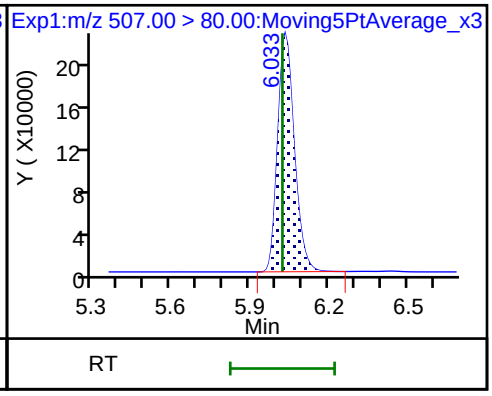
43 Perfluorooctanesulfonic acid (M)



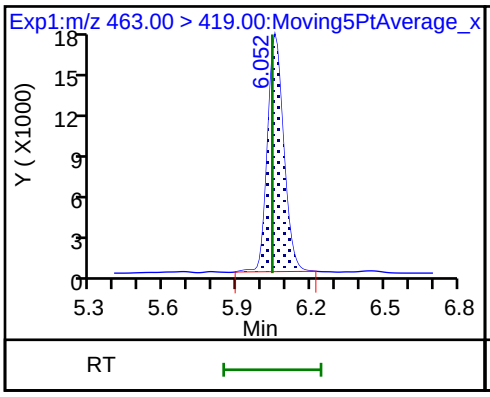
* 42 13C4 PFOS



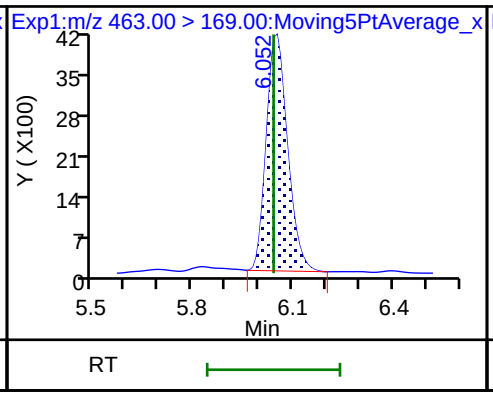
D 41 13C8 PFOS



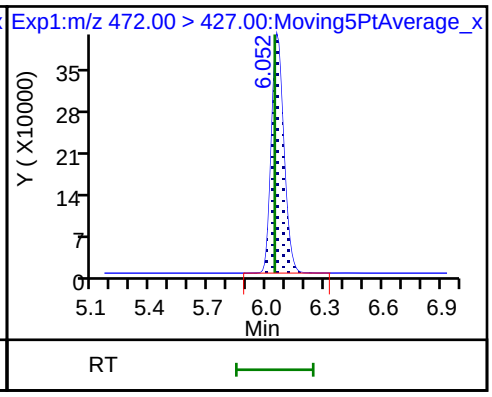
44 Perfluorononanoic acid



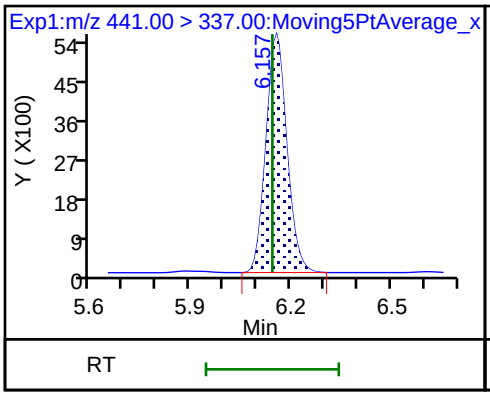
44 Perfluorononanoic acid



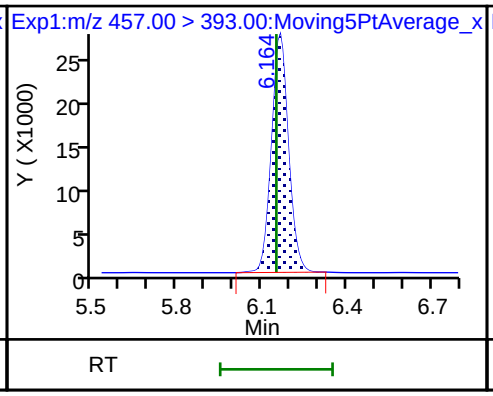
D 45 13C9 PFNA



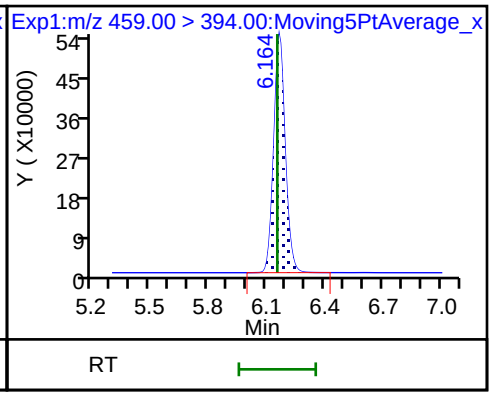
46 7:3 FTCA



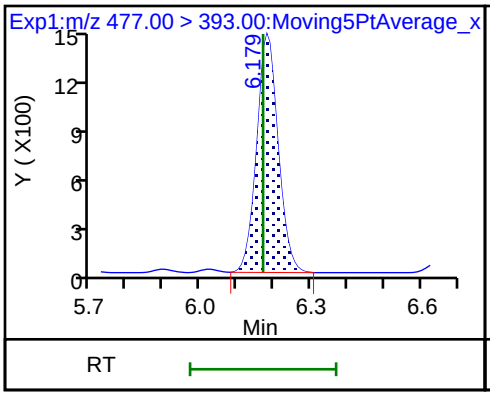
47 8:2 FTUCA



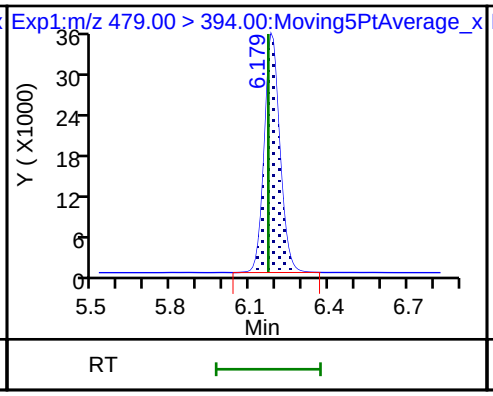
D 48 13C-8:2 FTUCA



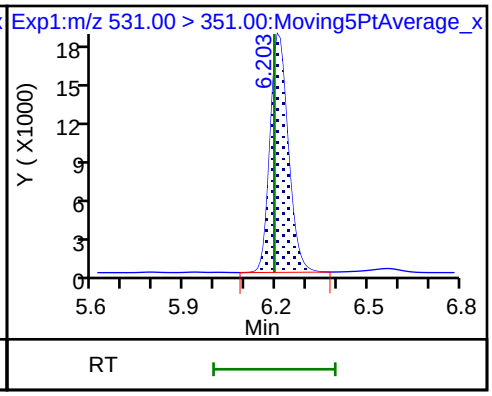
49 8:2 FTCA



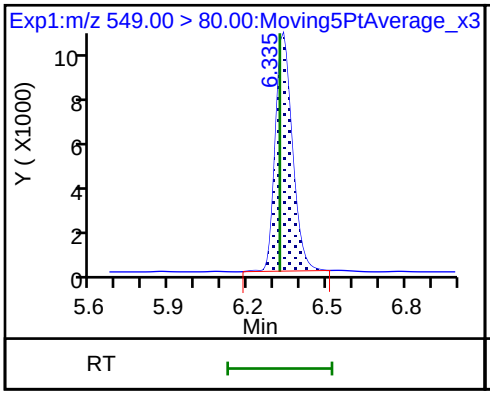
D 50 13C-8:2 FTCA



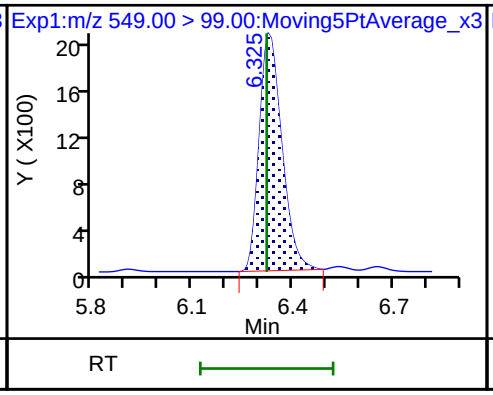
51 9ClFOS



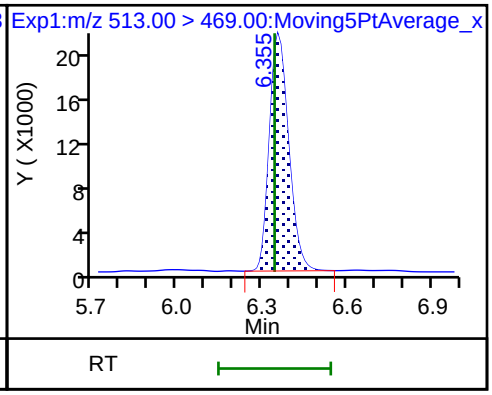
52 Perfluorononanesulfonic acid



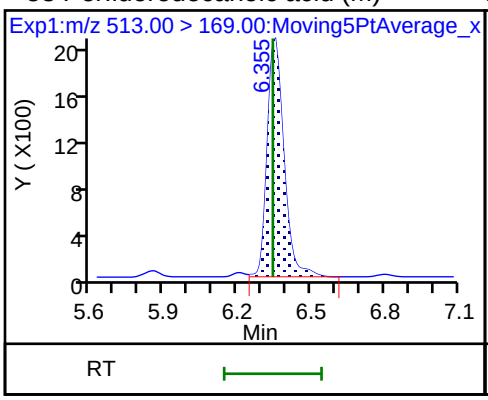
52 Perfluorononanesulfonic acid



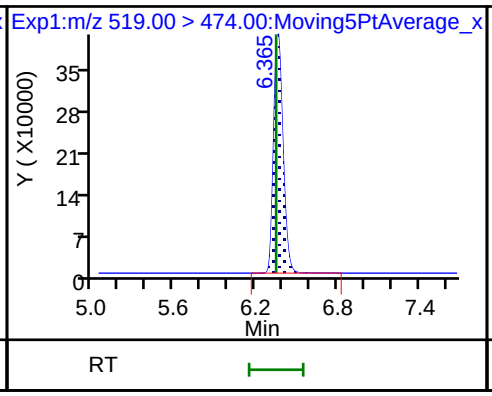
53 Perfluorodecanoic acid



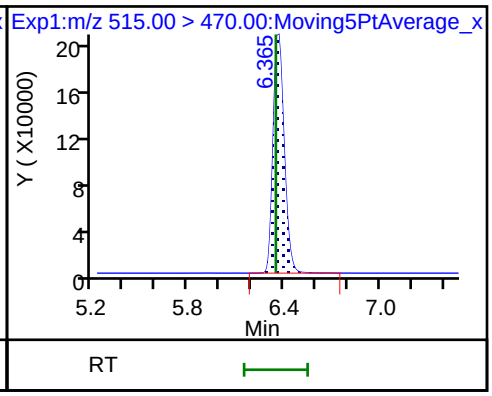
53 Perfluorodecanoic acid (M)



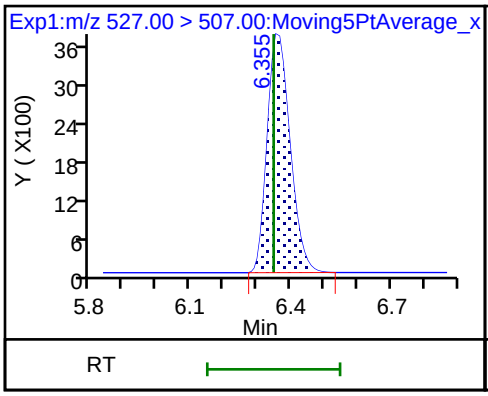
D 54 13C6 PFDA



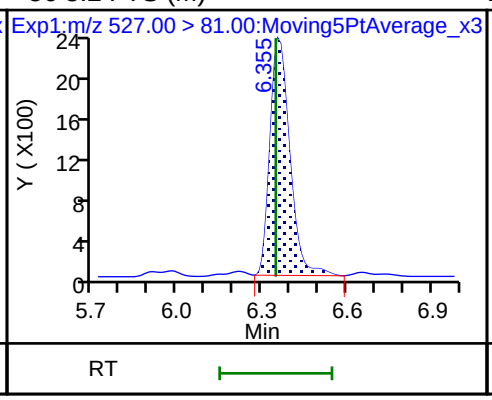
* 55 13C2 PFDA



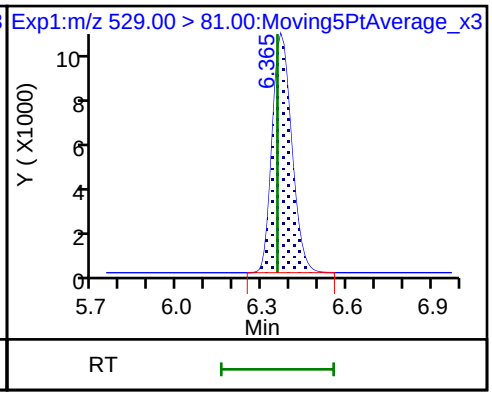
56 8:2 FTS



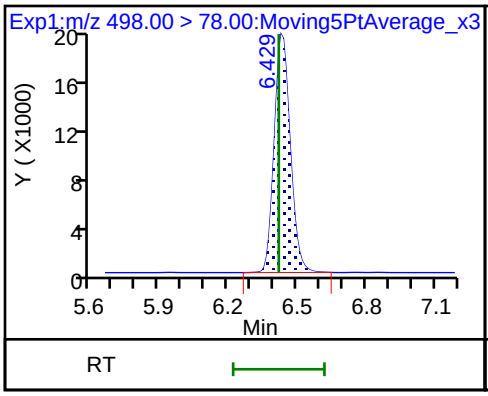
56 8:2 FTS (M)



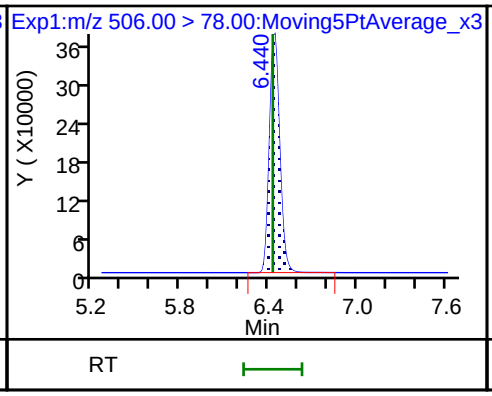
D 57 M2-8:2 FTS



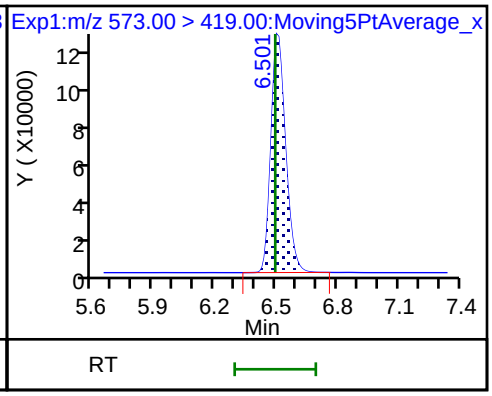
58 Perfluorooctanesulfonamide



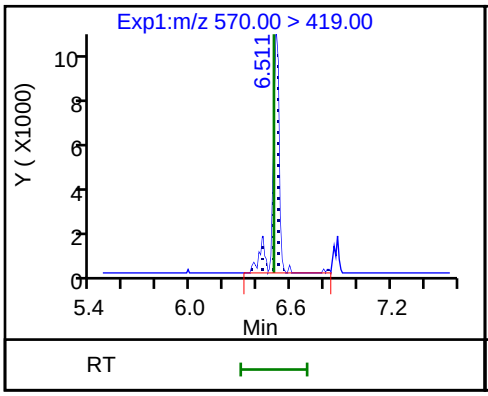
D 59 13C8 FOSA



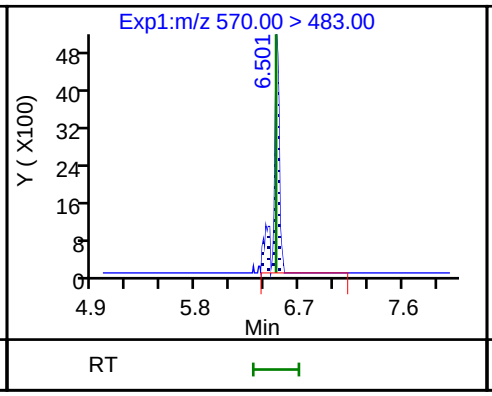
D 61 d3-NMeFOSAA



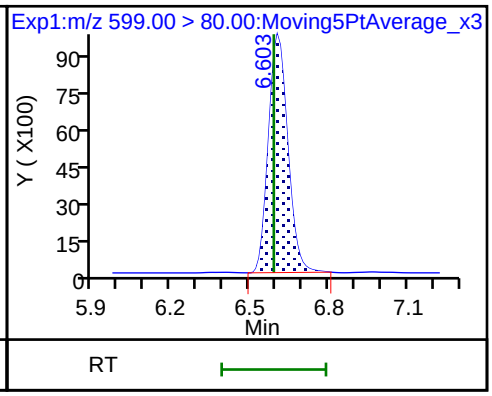
60 NMeFOSAA



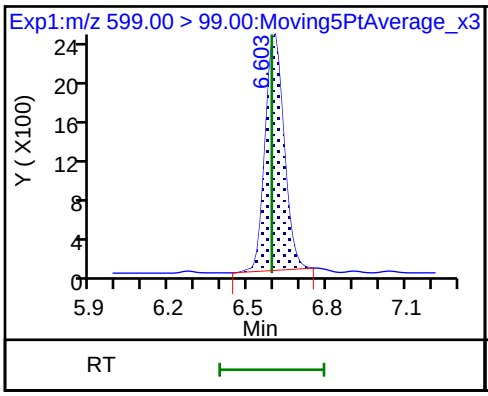
60 NMeFOSAA



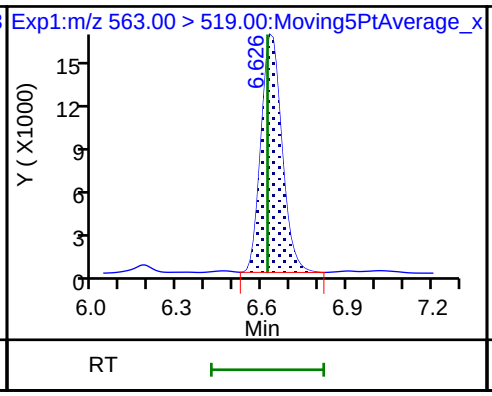
62 Perfluorodecanesulfonic acid



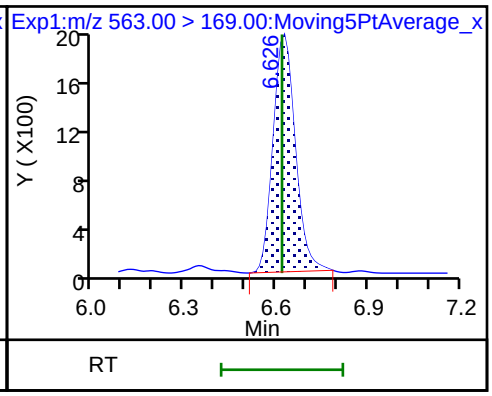
62 Perfluorodecanesulfonic acid



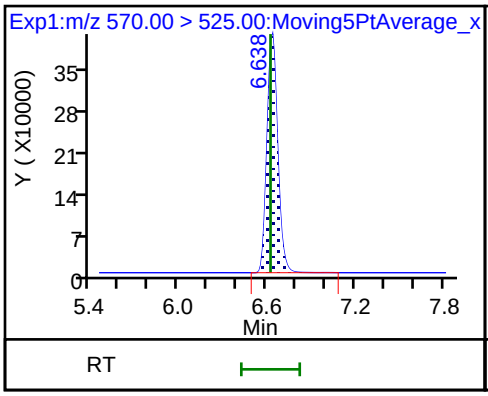
63 Perfluoroundecanoic acid



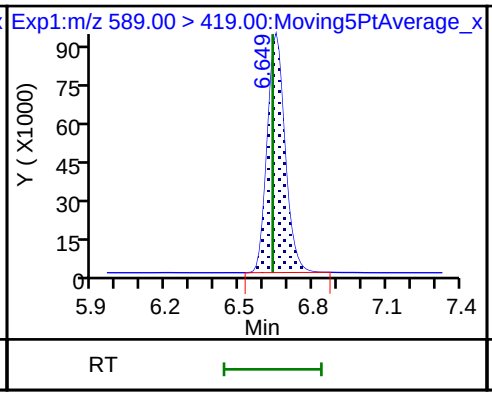
63 Perfluoroundecanoic acid



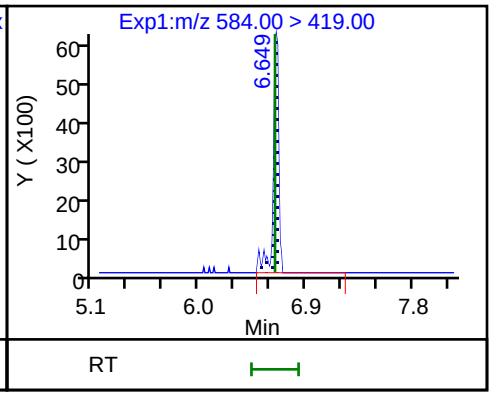
D 65 13C7 PFUnA



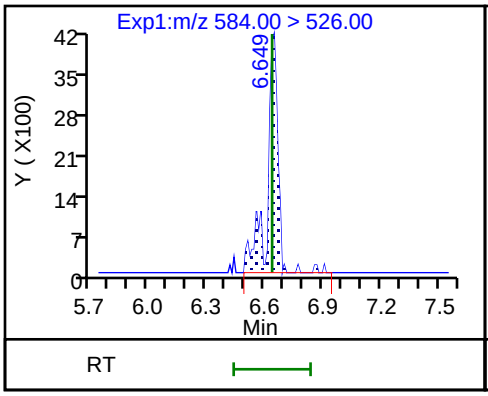
D 66 d5-NEtFOSAA



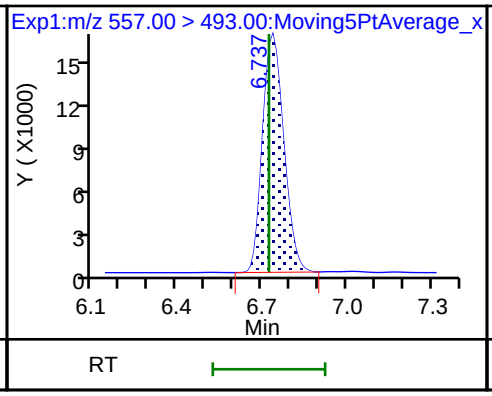
67 NEtFOSAA



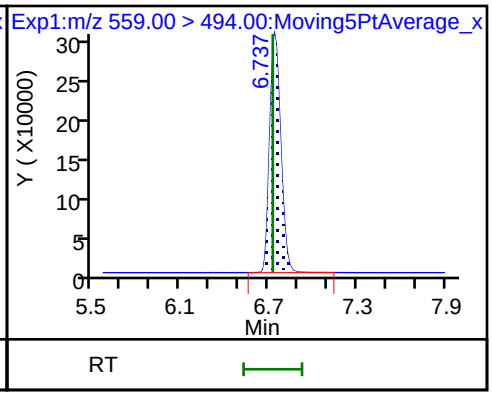
67 NEtFOSAA



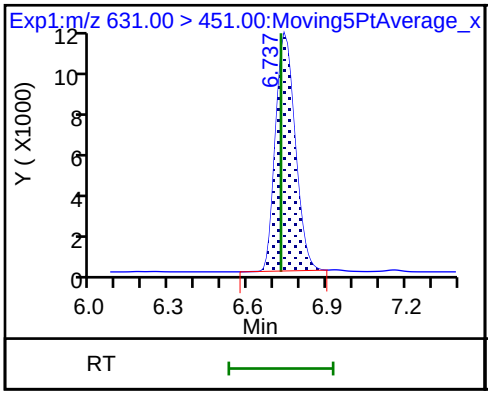
68 10:2 FTUCA



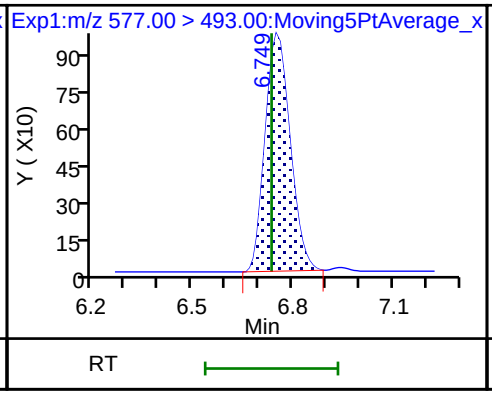
D 70 13C-10:2 FTUCA



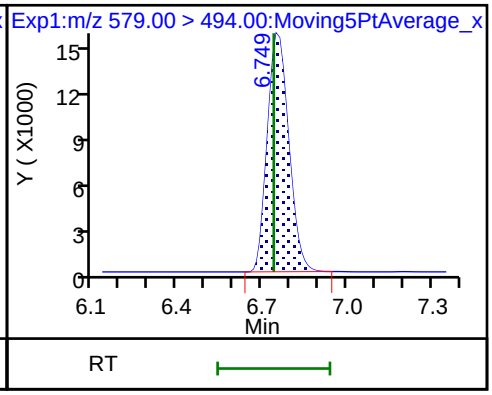
69 11ClFOS



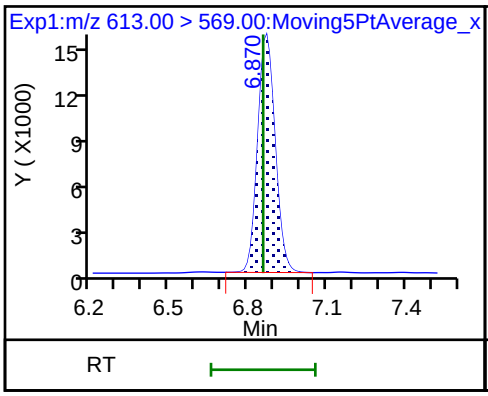
71 10:2 FTCA



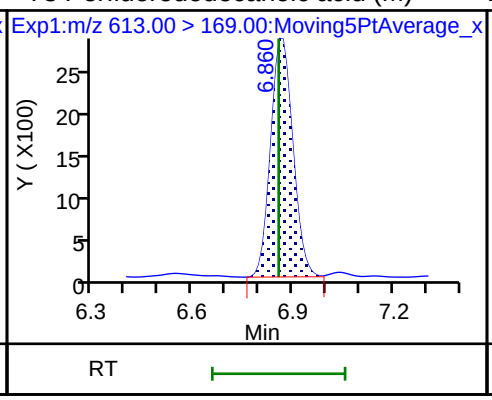
D 72 13C-10:2 FTCA



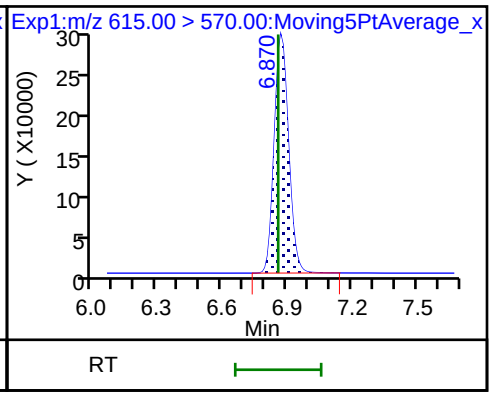
73 Perfluorododecanoic acid



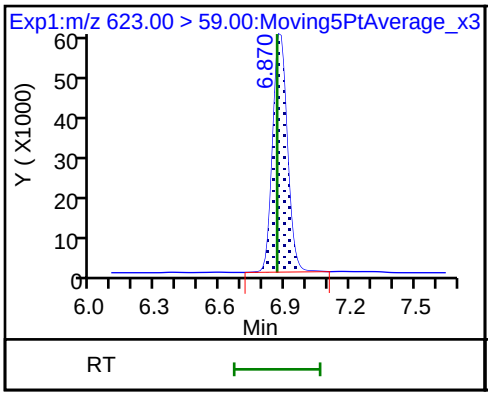
73 Perfluorododecanoic acid (M)



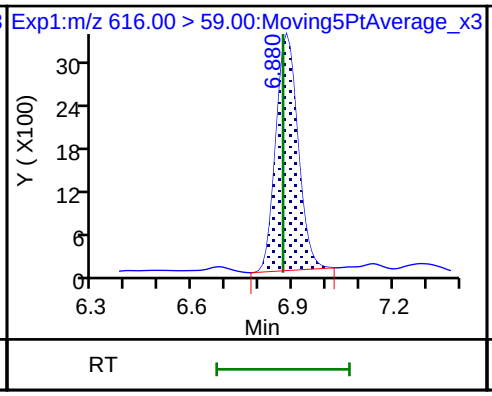
D 74 13C2-PFDoDA



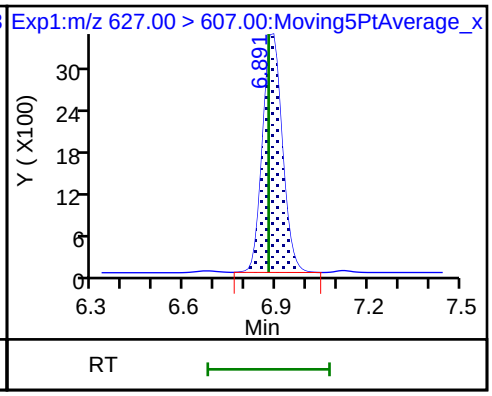
D 76 d7-N-MeFOSE-M



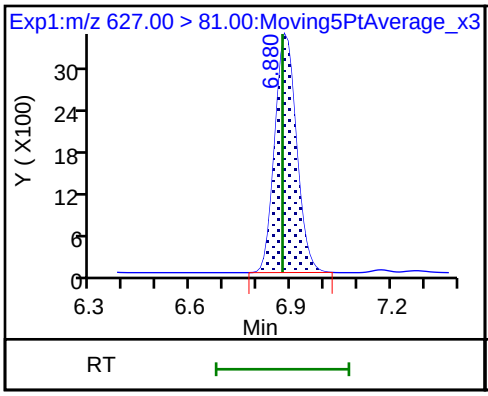
77 N-MeFOSE-M



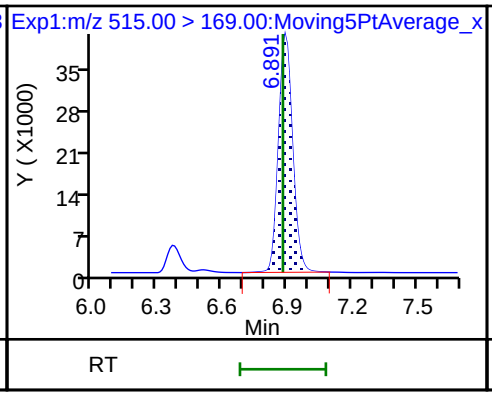
75 10:2 FTS



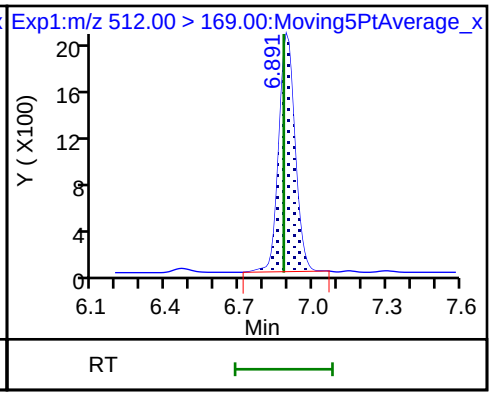
75 10:2 FTS



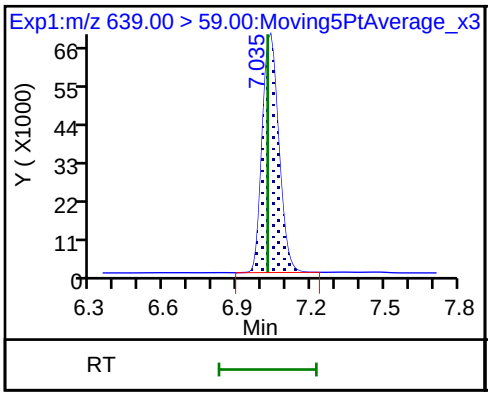
D 79 d3-NMePFOSA



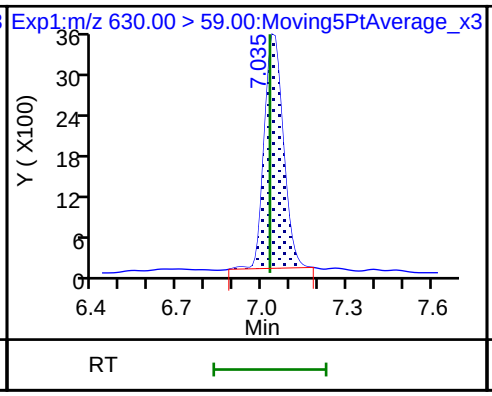
78 NMeFOSA



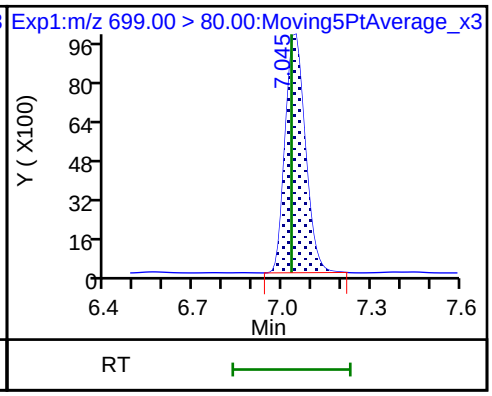
D 81 d9-N-EtFOSE-M



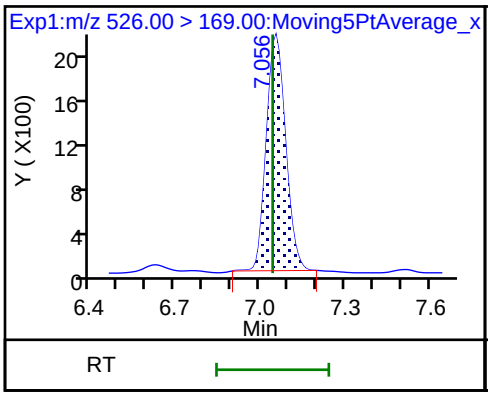
82 N-EtFOSE-M



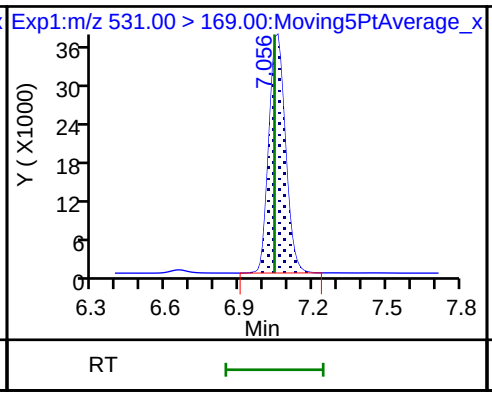
80 PFDoS



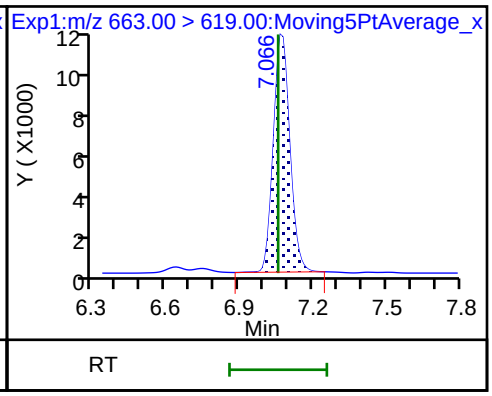
84 N-EtFOSA-M



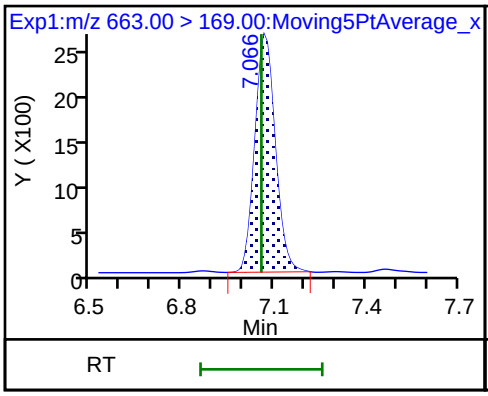
D 83 d5-NEtPFOSA



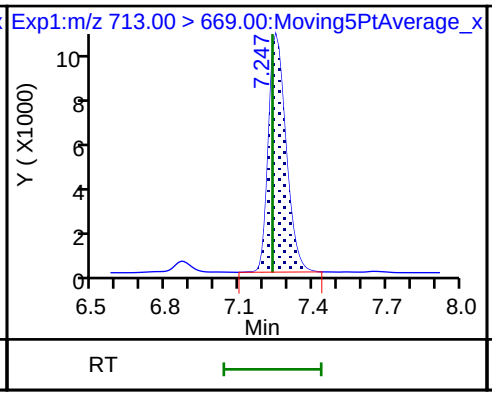
85 Perfluorotridecanoic acid



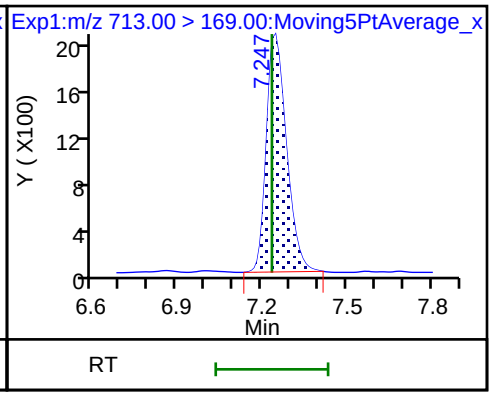
85 Perfluorotridecanoic acid



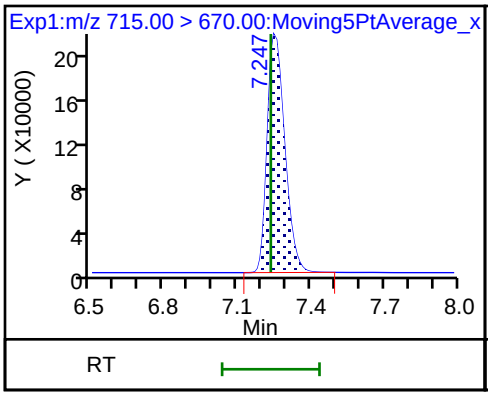
86 Perfluorotetradecanoic acid



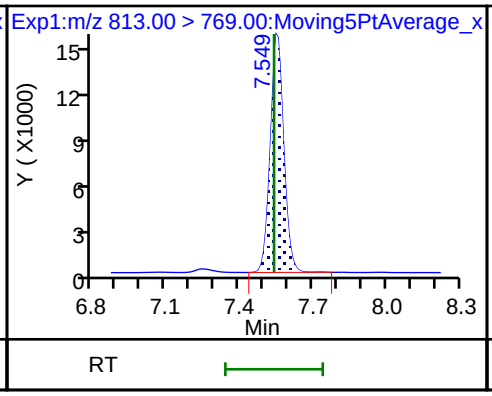
86 Perfluorotetradecanoic acid



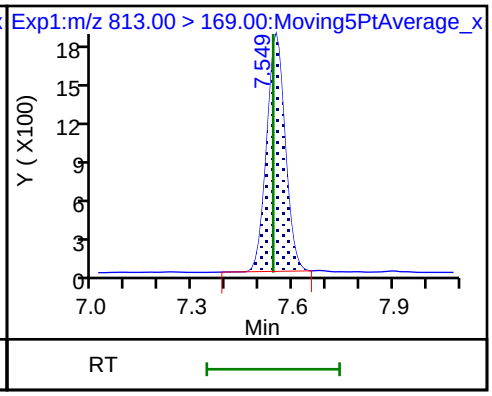
D 87 13C2 PFTeDA



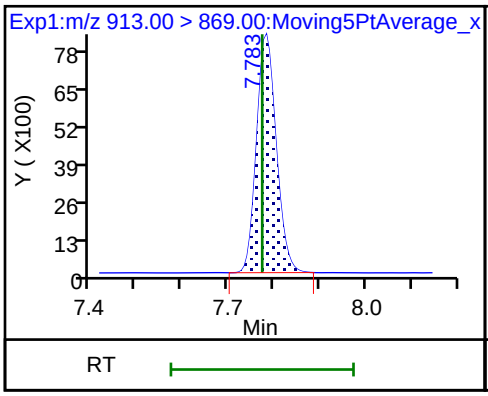
88 Perfluorohexadecanoic acid



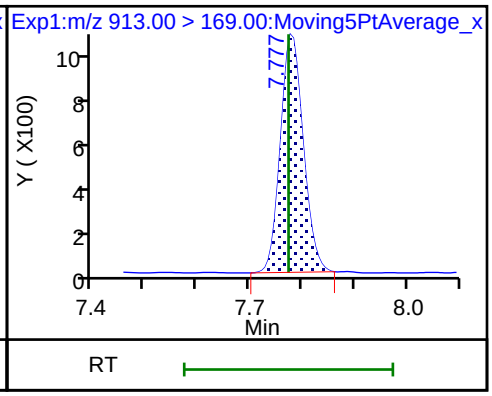
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

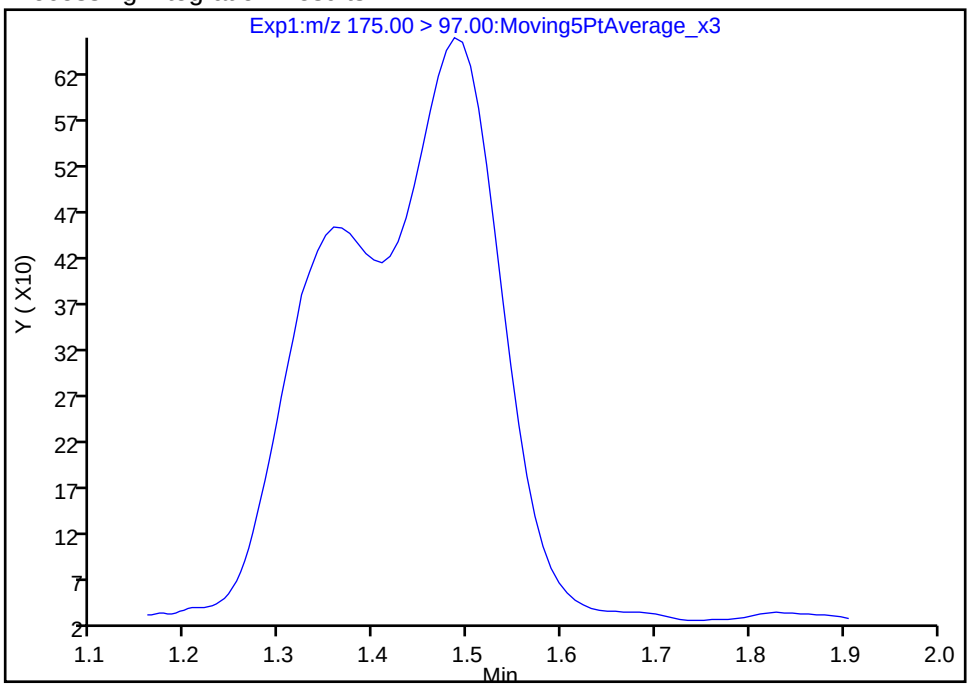
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

107 MTP, CAS: 93449-21-9

Signal: 1

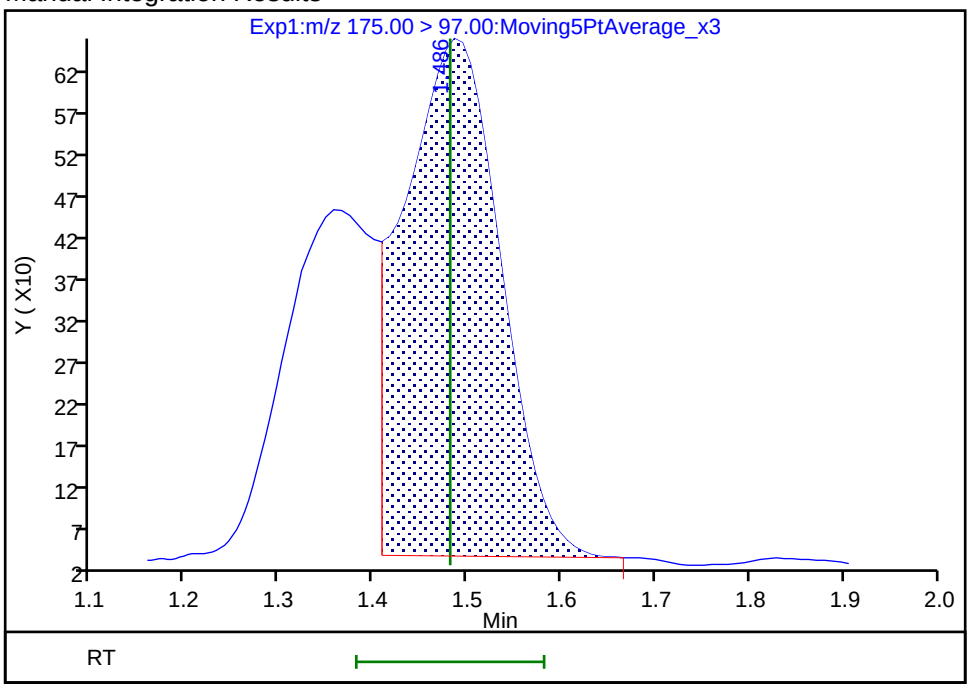
Processing Integration Results

Not Detected
Expected RT: 1.48



Manual Integration Results

RT: 1.49
Area: 4458
Amount: 0.436265
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:33:03
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

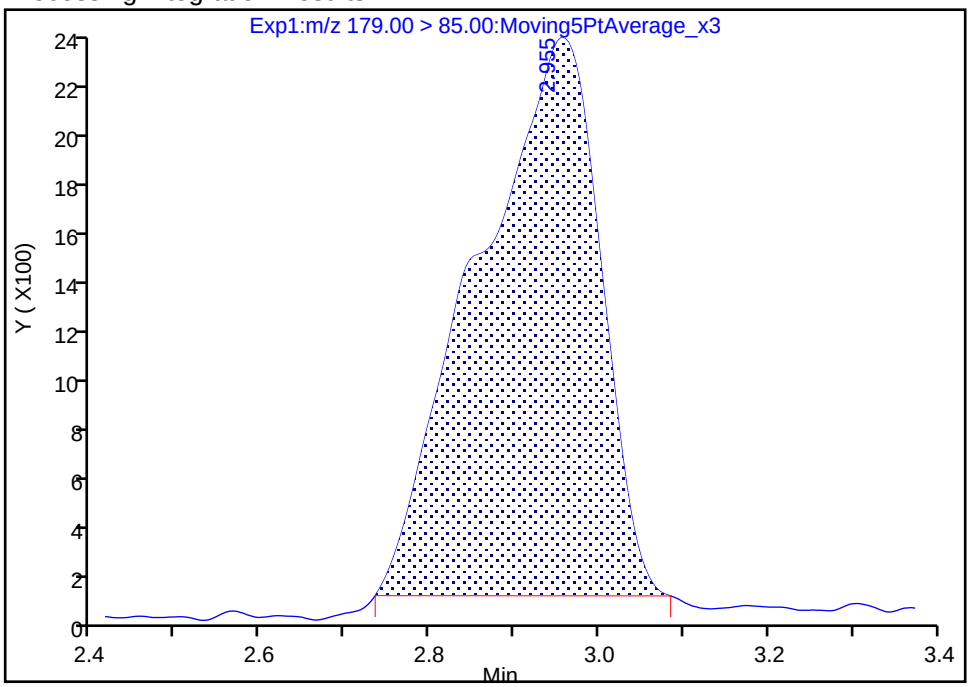
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

96 PFMOAA, CAS: 674-13-5

Signal: 1

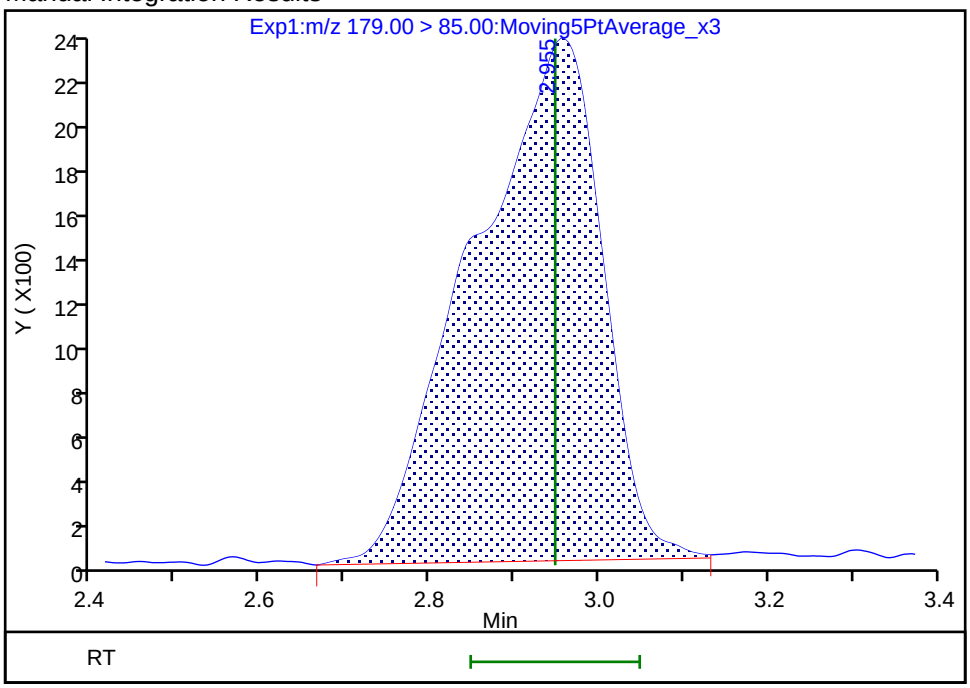
Processing Integration Results

RT: 2.95
Area: 21794
Amount: 0.453971
Amount Units: ng/ml



Manual Integration Results

RT: 2.95
Area: 23637
Amount: 0.471745
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:36:26

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

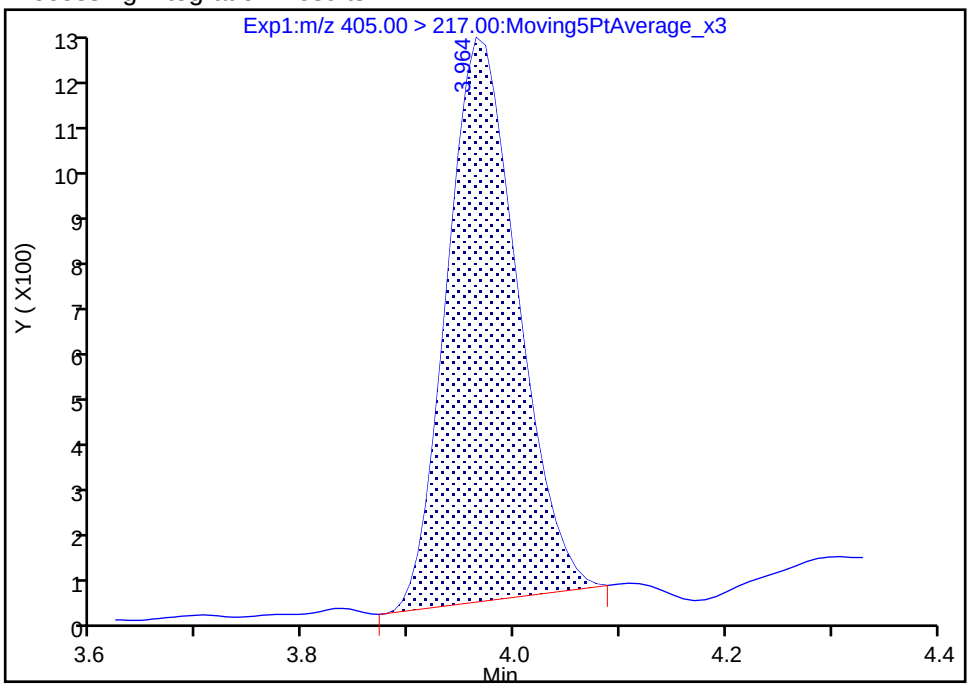
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

99 R-EVE, CAS: 2416366-22-6

Signal: 1

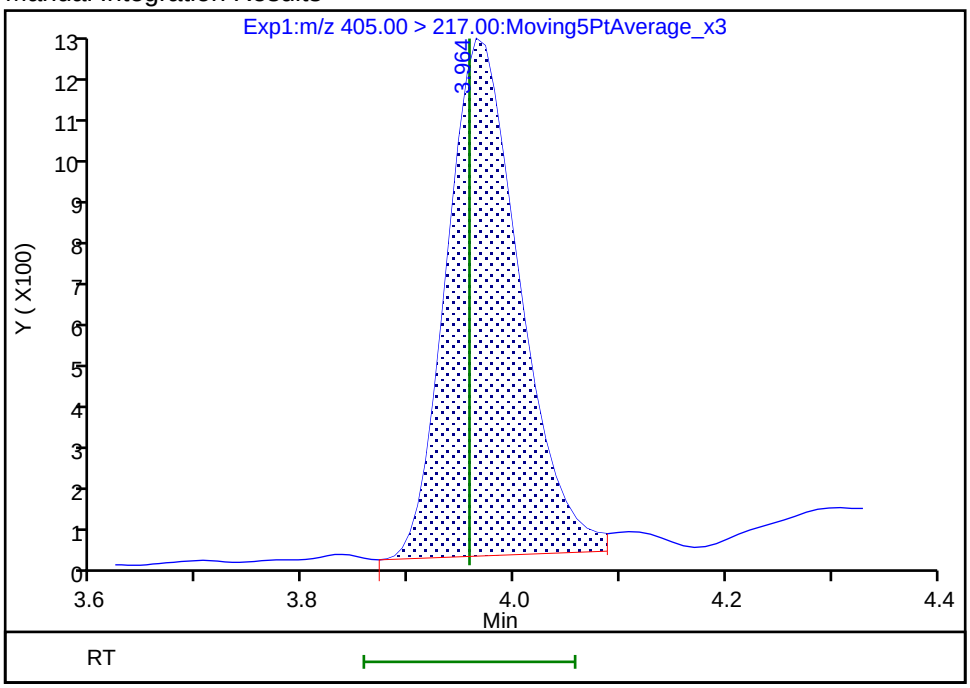
Processing Integration Results

RT: 3.96
Area: 5713
Amount: 0.429380
Amount Units: ng/ml



Manual Integration Results

RT: 3.96
Area: 5985
Amount: 0.465956
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:36:57

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

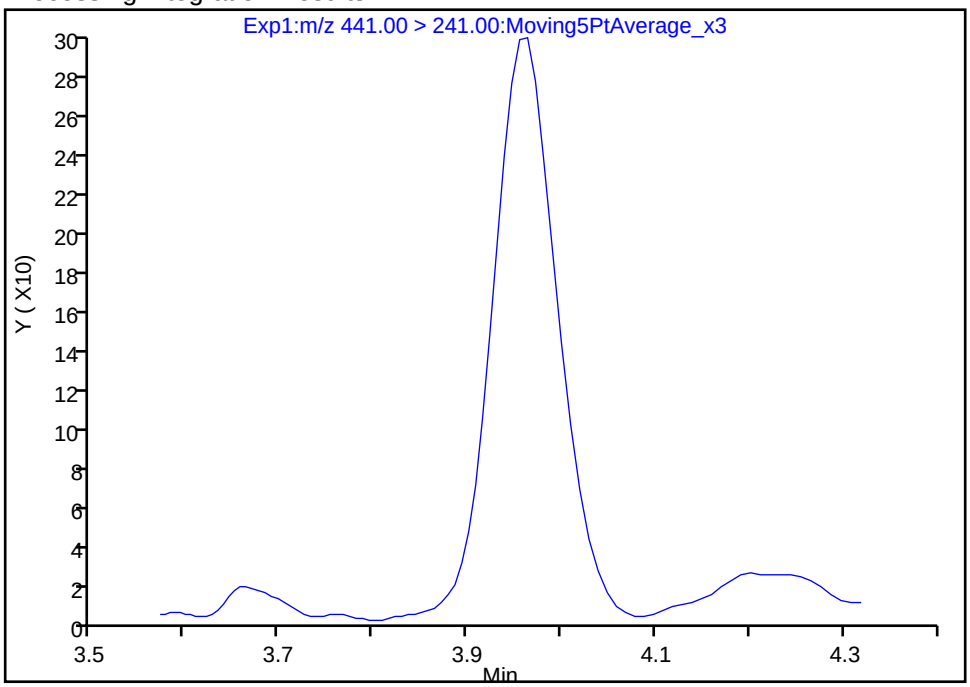
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

100 R-PSDA, CAS: 2416366-18-0

Signal: 1

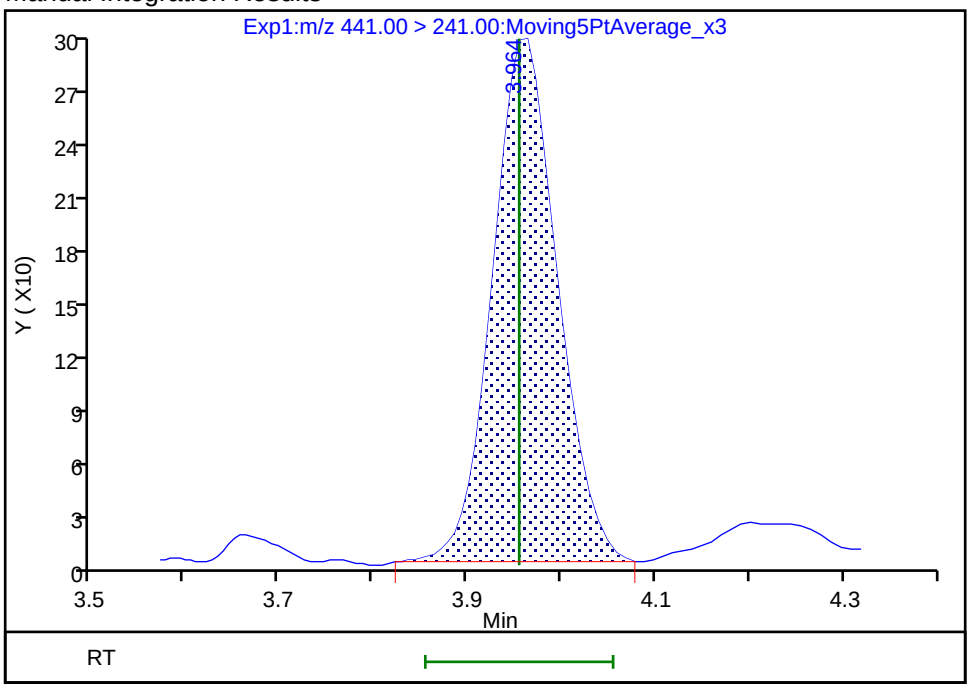
Processing Integration Results

Not Detected
Expected RT: 3.95



Manual Integration Results

RT: 3.96
Area: 1403
Amount: 0.423336
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:33:15
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

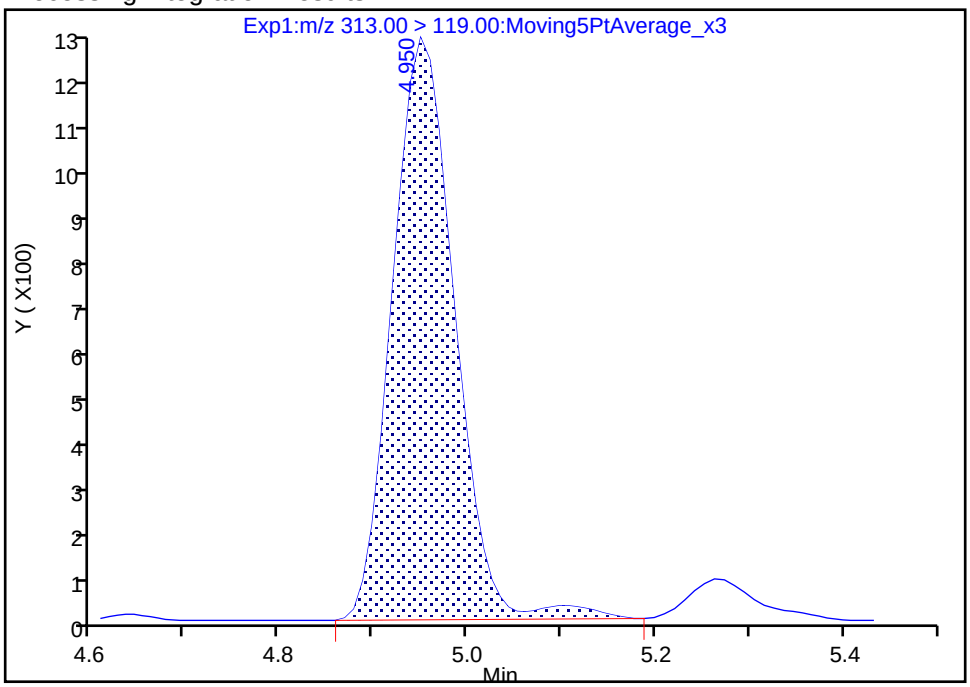
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

17 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

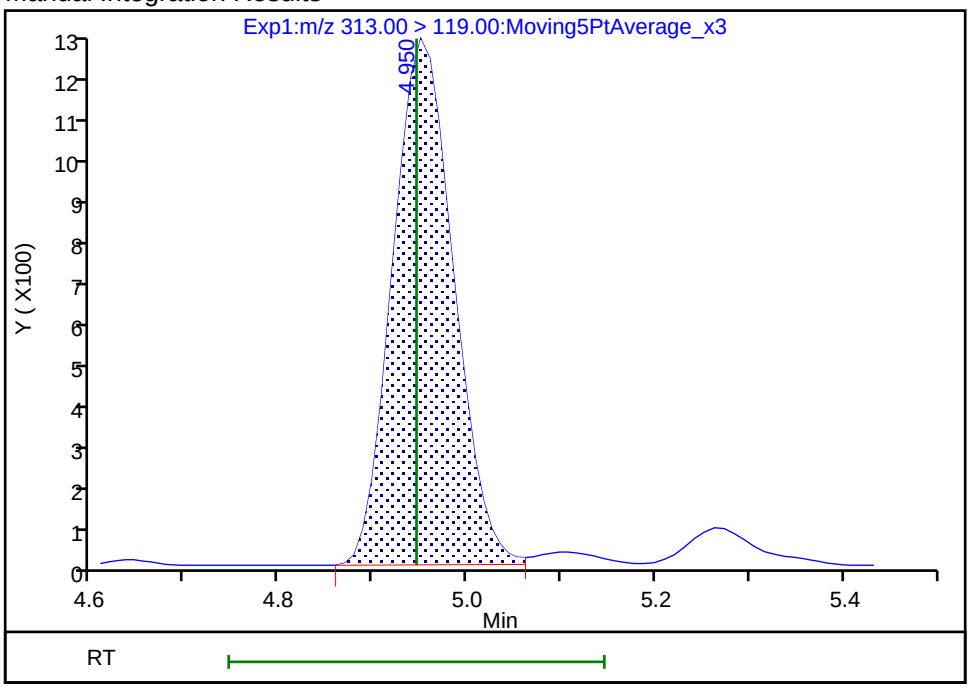
Processing Integration Results

RT: 4.95
Area: 5691
Amount: 0.499236
Amount Units: ng/ml



Manual Integration Results

RT: 4.95
Area: 5571
Amount: 0.520353
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:39:08

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

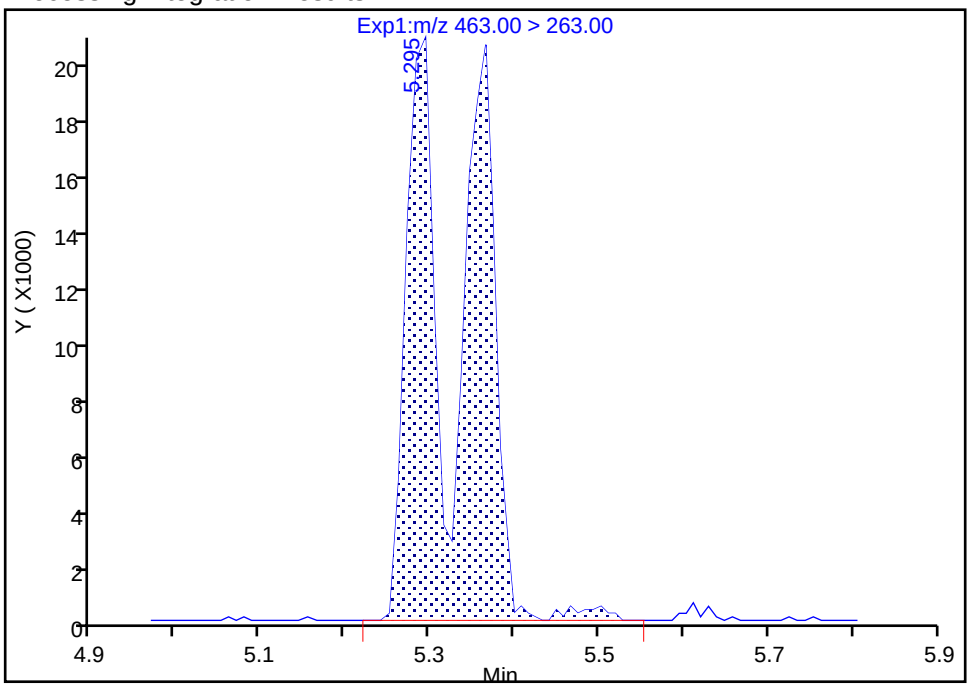
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

106 Hydro-PS Acid, CAS: 749836-20-2

Signal: 1

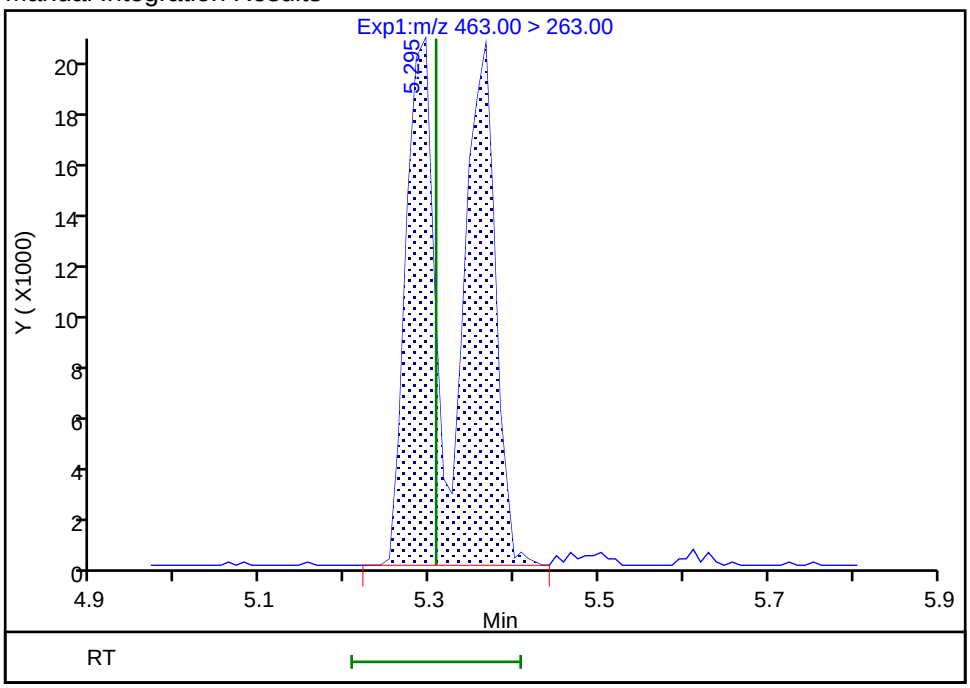
Processing Integration Results

RT: 5.29
Area: 97383
Amount: 0.500256
Amount Units: ng/ml



Manual Integration Results

RT: 5.29
Area: 95837
Amount: 0.479141
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:39:15

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

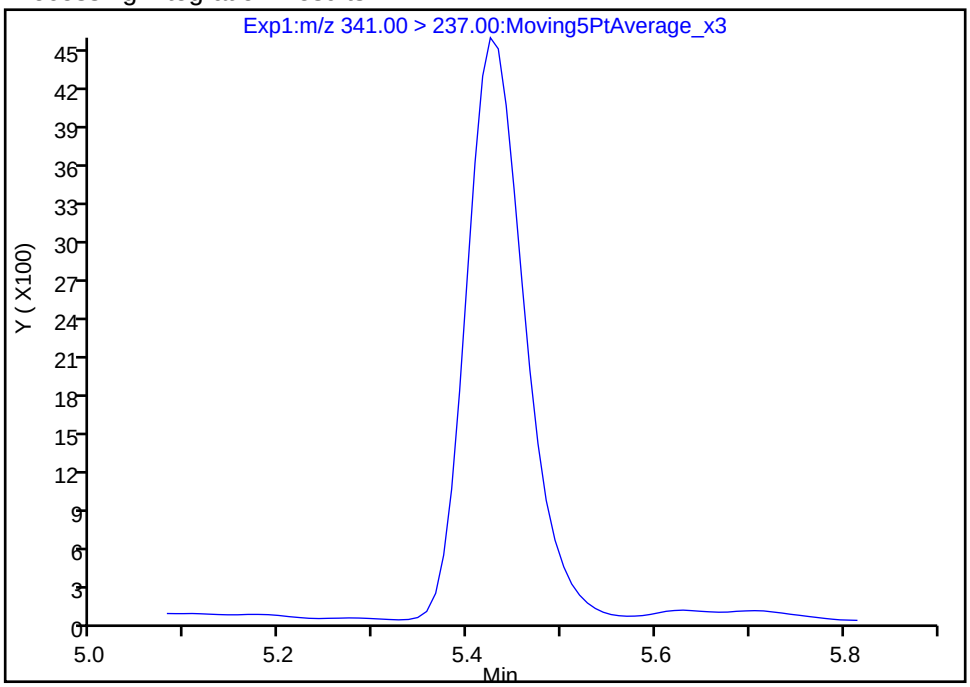
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

28 5:3 FTCA, CAS: 914637-49-3

Signal: 1

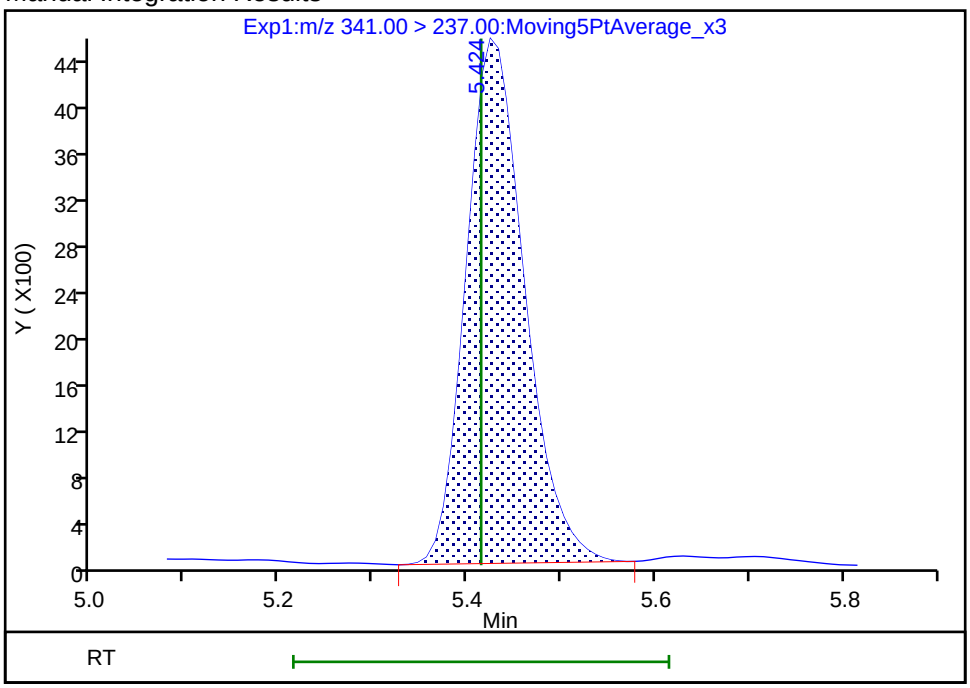
Processing Integration Results

Not Detected
Expected RT: 5.41



Manual Integration Results

RT: 5.42
Area: 19346
Amount: 0.473784
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:33:26
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

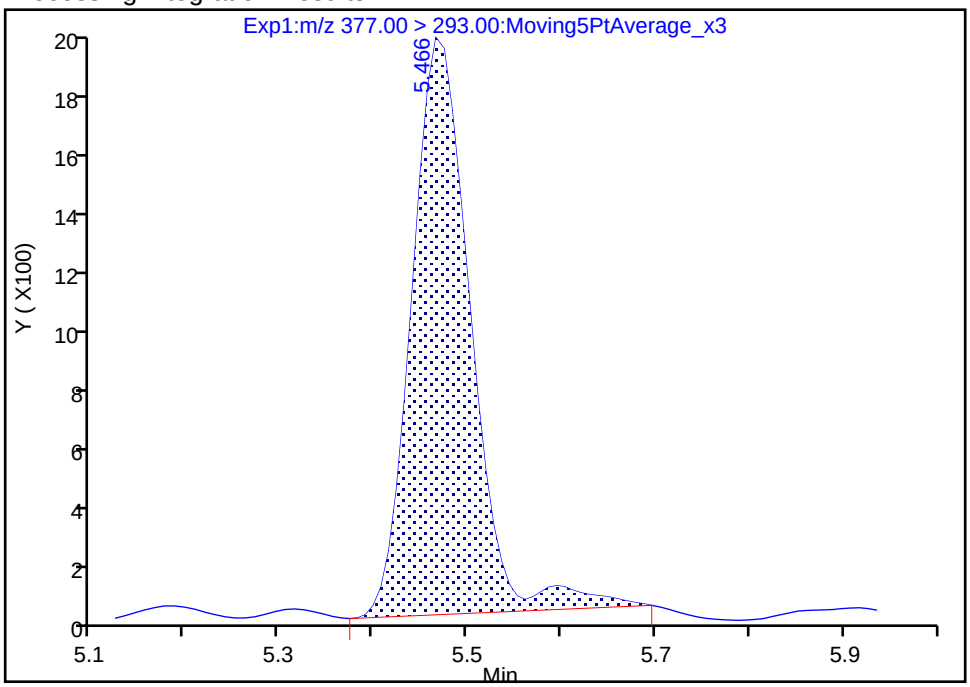
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

32 6:2 FTCA, CAS: 53826-12-3

Signal: 1

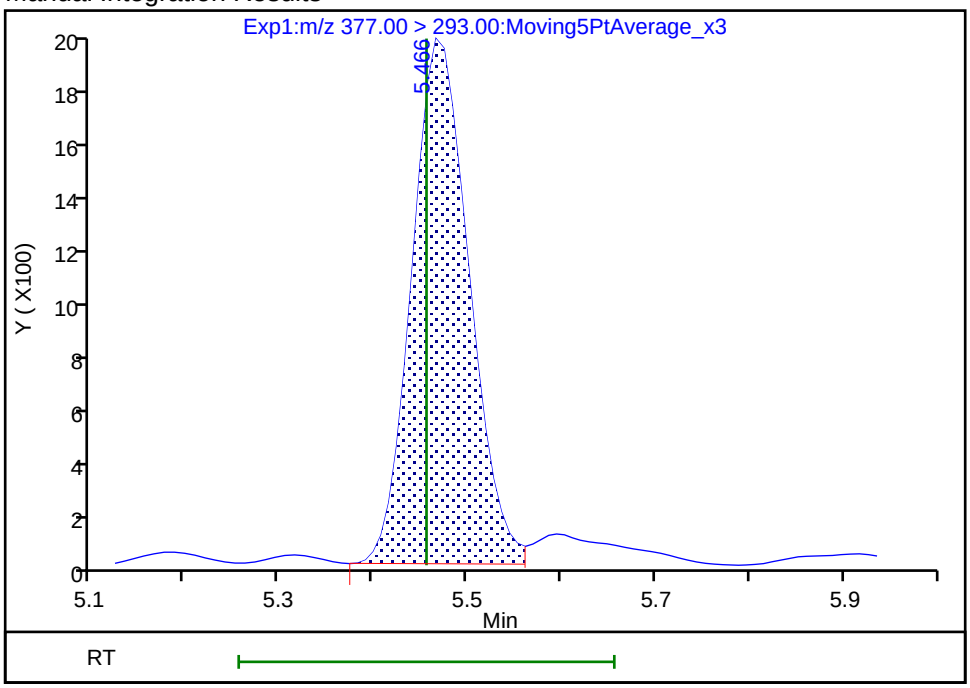
Processing Integration Results

RT: 5.47
Area: 8373
Amount: 0.495019
Amount Units: ng/ml



Manual Integration Results

RT: 5.47
Area: 8177
Amount: 0.514285
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:39:36

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

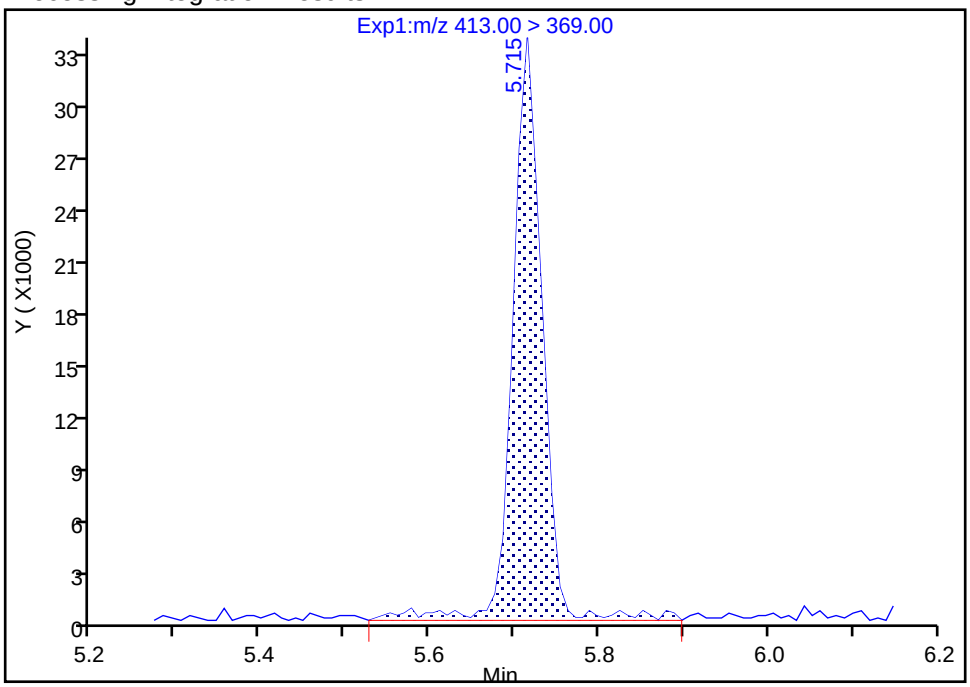
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

40 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

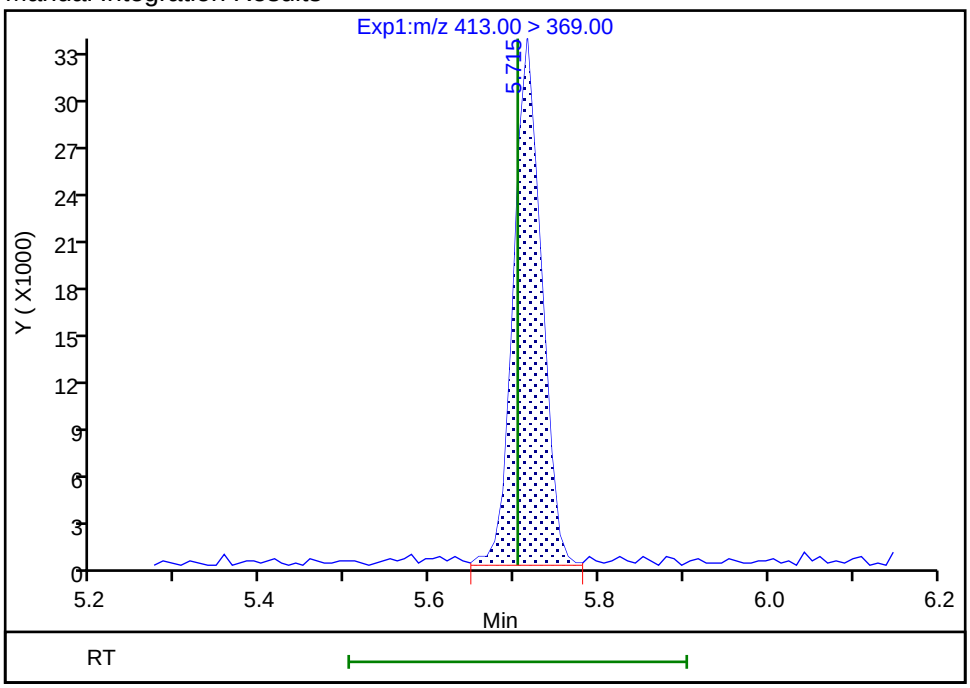
Processing Integration Results

RT: 5.72
Area: 82308
Amount: 0.489973
Amount Units: ng/ml



Manual Integration Results

RT: 5.72
Area: 77536
Amount: 0.466987
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:39:59

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

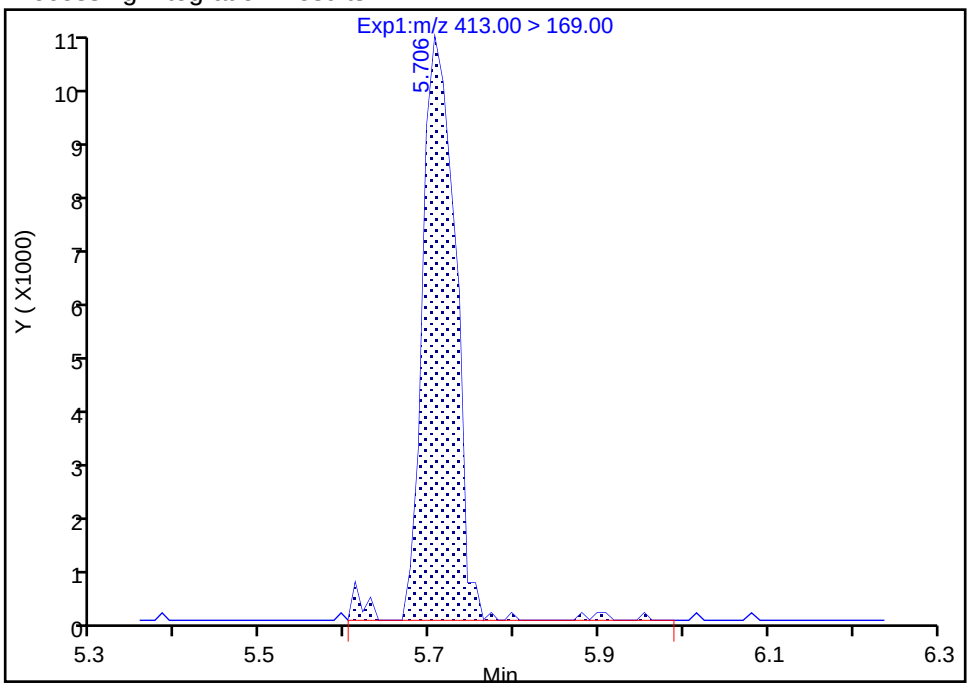
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

40 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

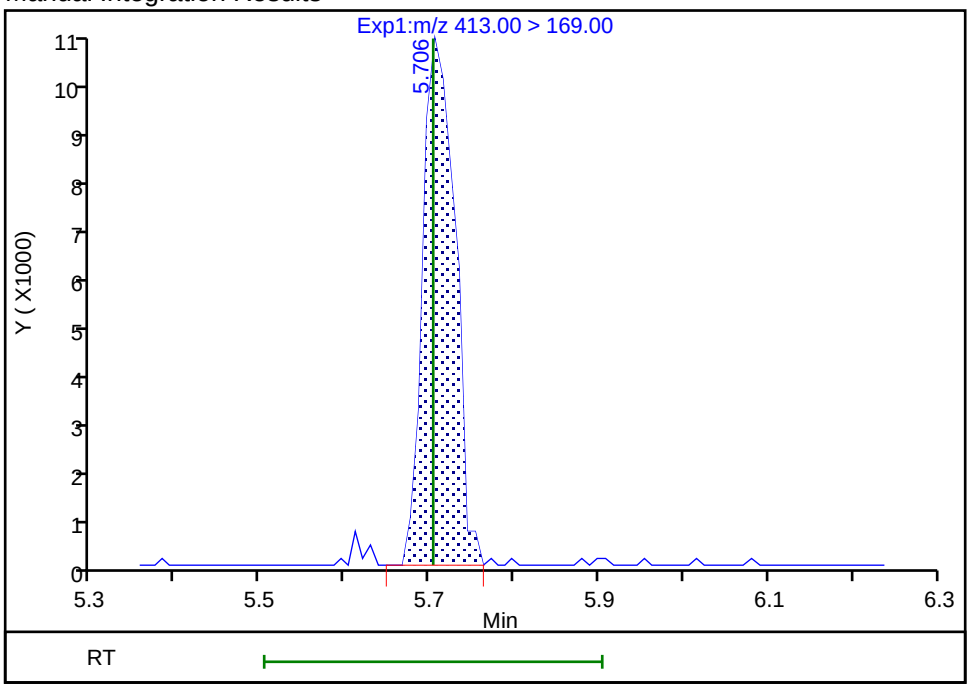
Processing Integration Results

RT: 5.71
Area: 29766
Amount: 0.489973
Amount Units: ng/ml



Manual Integration Results

RT: 5.71
Area: 28646
Amount: 0.466987
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:40:06

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

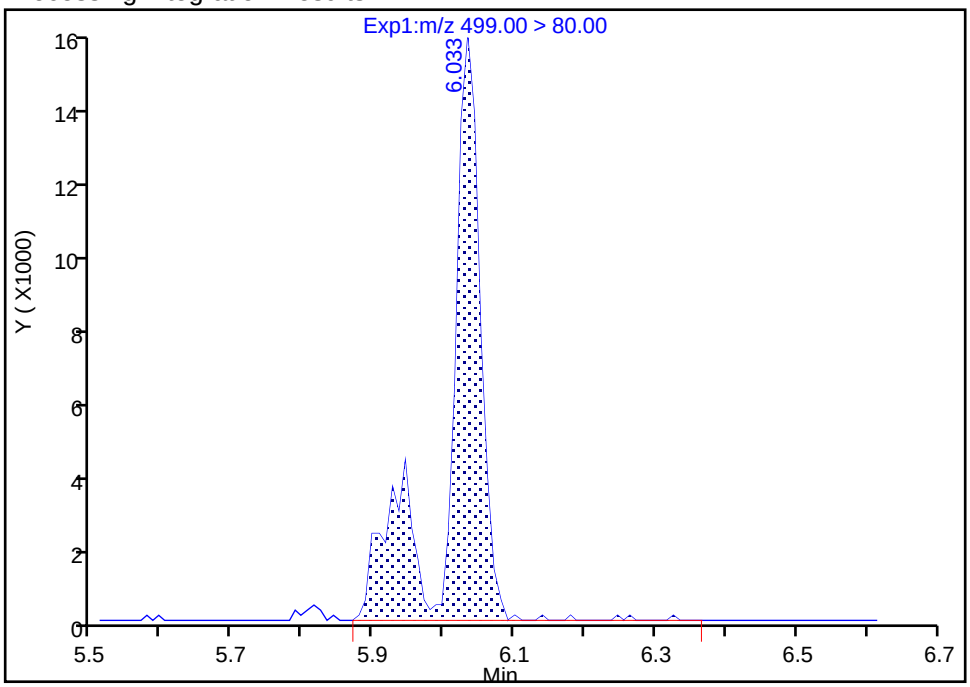
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

43 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

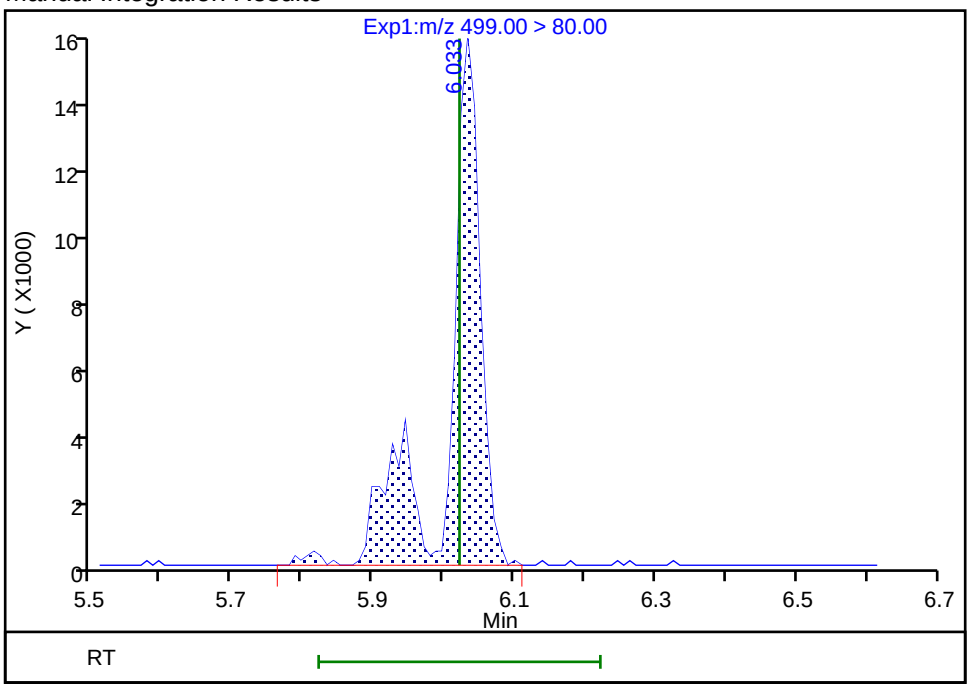
Processing Integration Results

RT: 6.03
Area: 48963
Amount: 0.429539
Amount Units: ng/ml



Manual Integration Results

RT: 6.03
Area: 49421
Amount: 0.443583
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:40:15

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

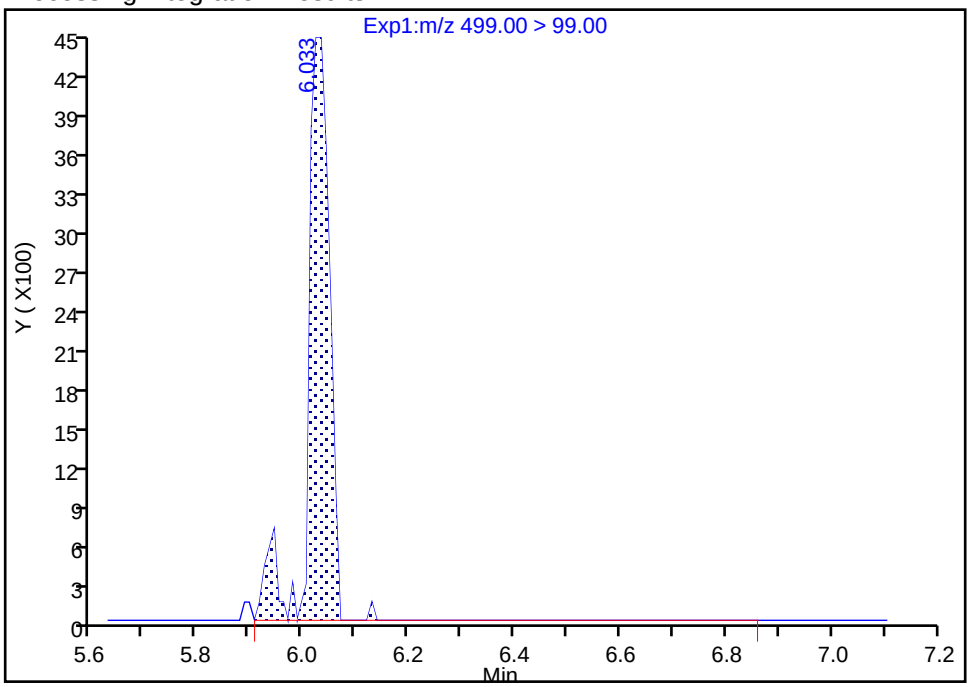
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

43 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

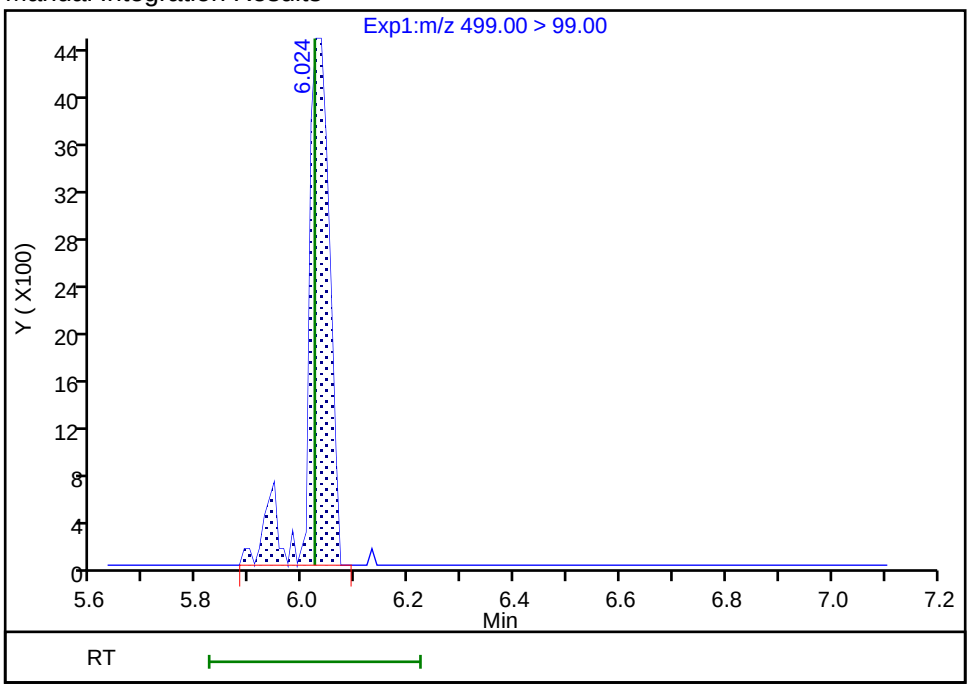
Processing Integration Results

RT: 6.03
Area: 12473
Amount: 0.429539
Amount Units: ng/ml



Manual Integration Results

RT: 6.02
Area: 12549
Amount: 0.443583
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:40:19

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

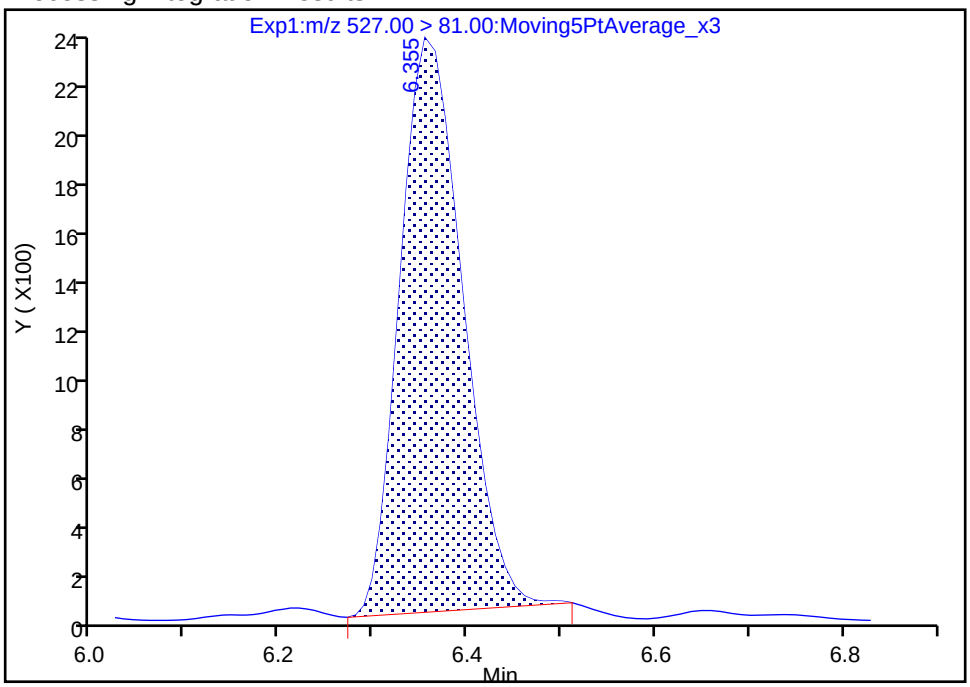
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

56 8:2 FTS, CAS: 39108-34-4

Signal: 2

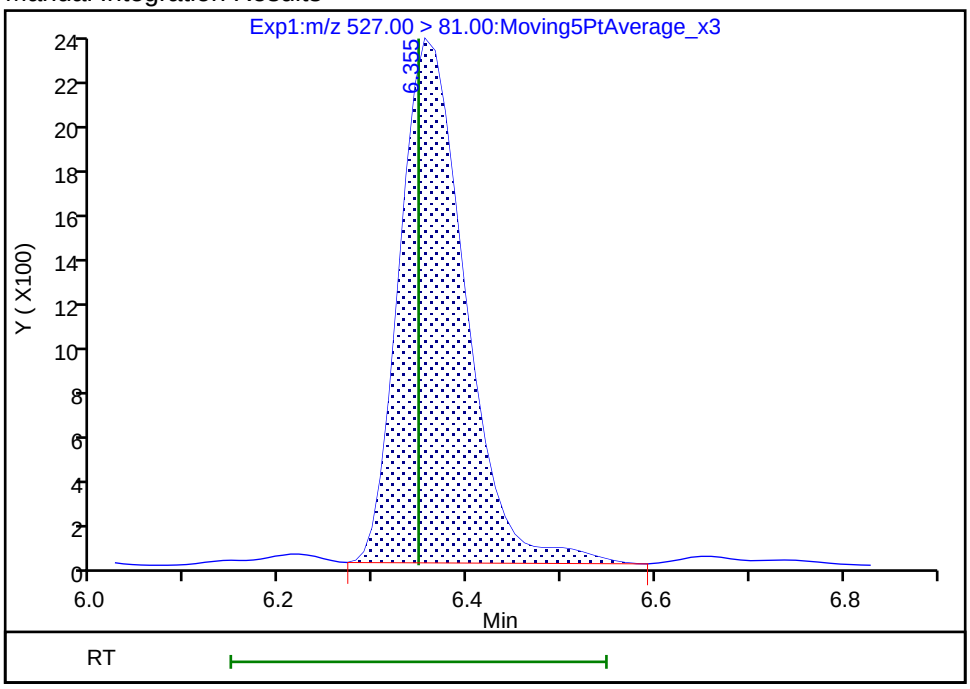
Processing Integration Results

RT: 6.35
Area: 10603
Amount: 0.458379
Amount Units: ng/ml



Manual Integration Results

RT: 6.35
Area: 11160
Amount: 0.458320
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:42:53

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

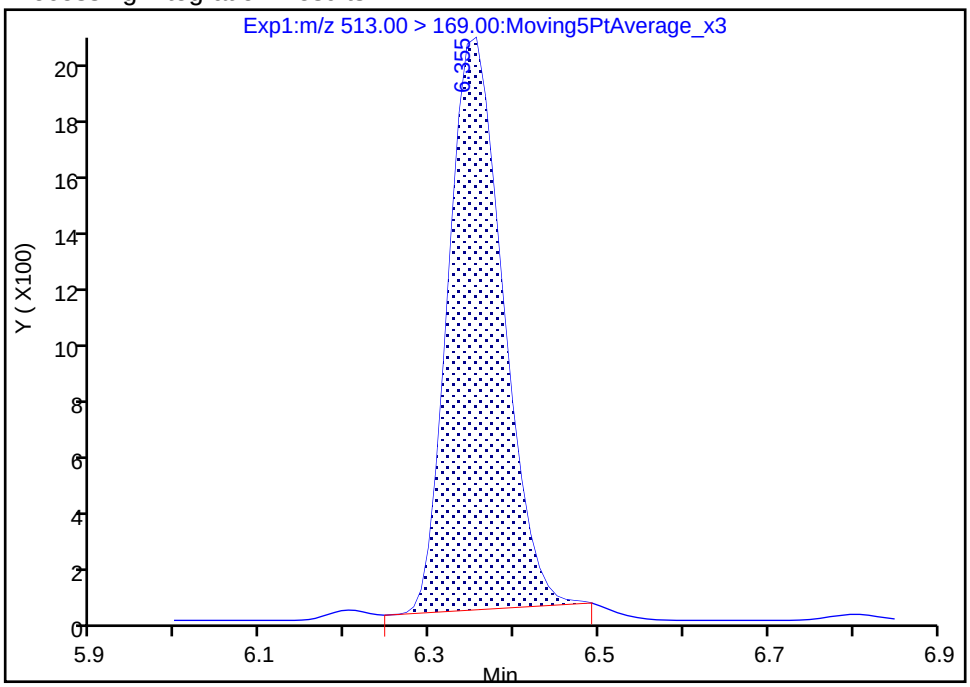
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

53 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

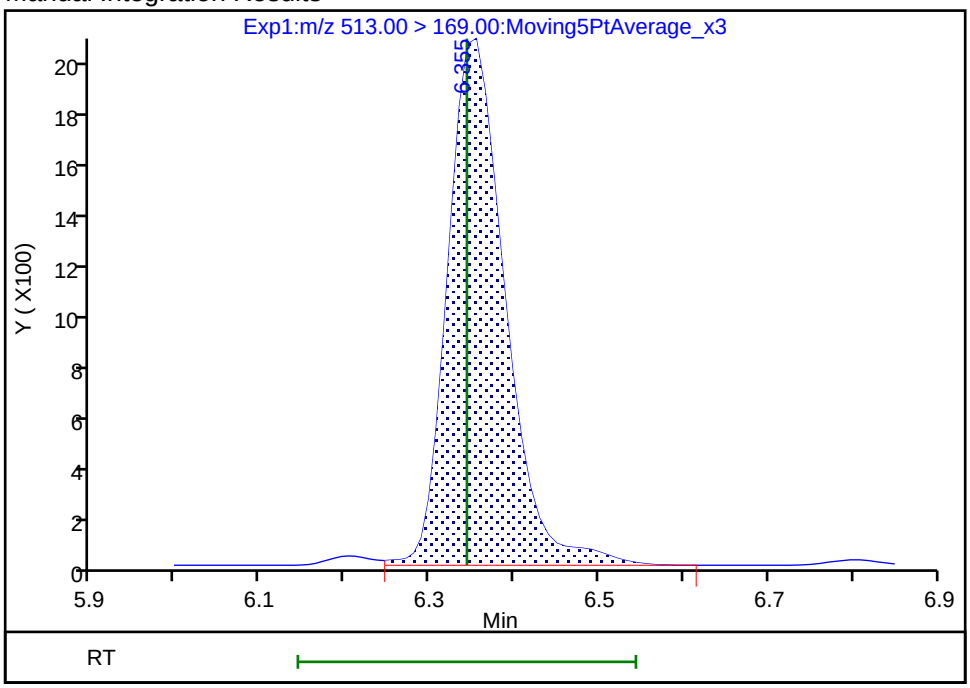
Processing Integration Results

RT: 6.35
Area: 8968
Amount: 0.490138
Amount Units: ng/ml



Manual Integration Results

RT: 6.35
Area: 9664
Amount: 0.541105
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:42:43

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

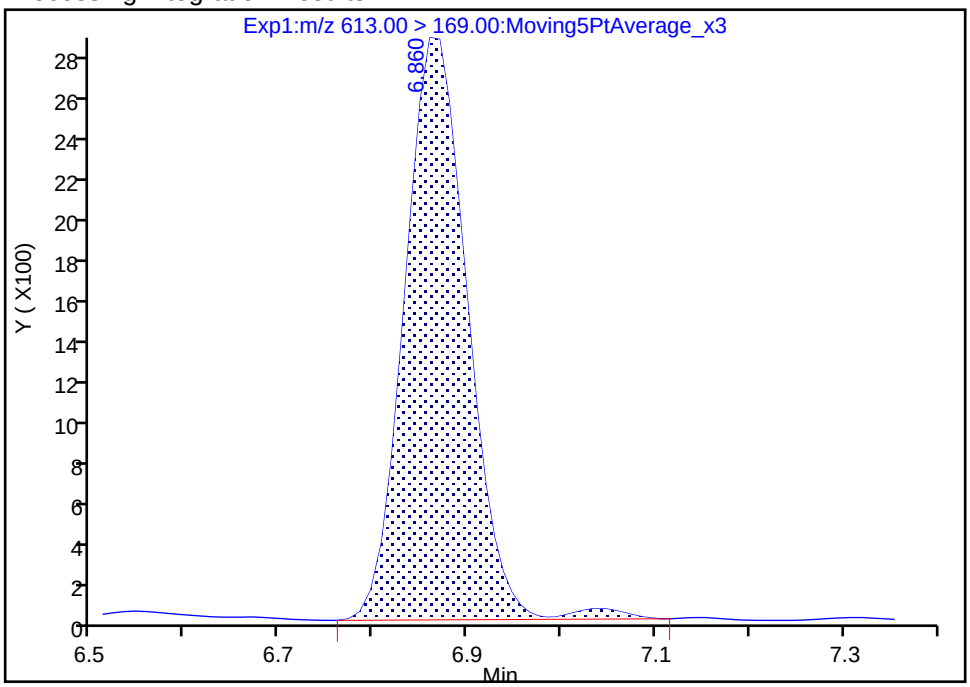
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-02.d				
Injection Date:	22-Feb-2022 15:23:09	Instrument ID:	30733		
Lims ID:	IC CAL2				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20003	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

73 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

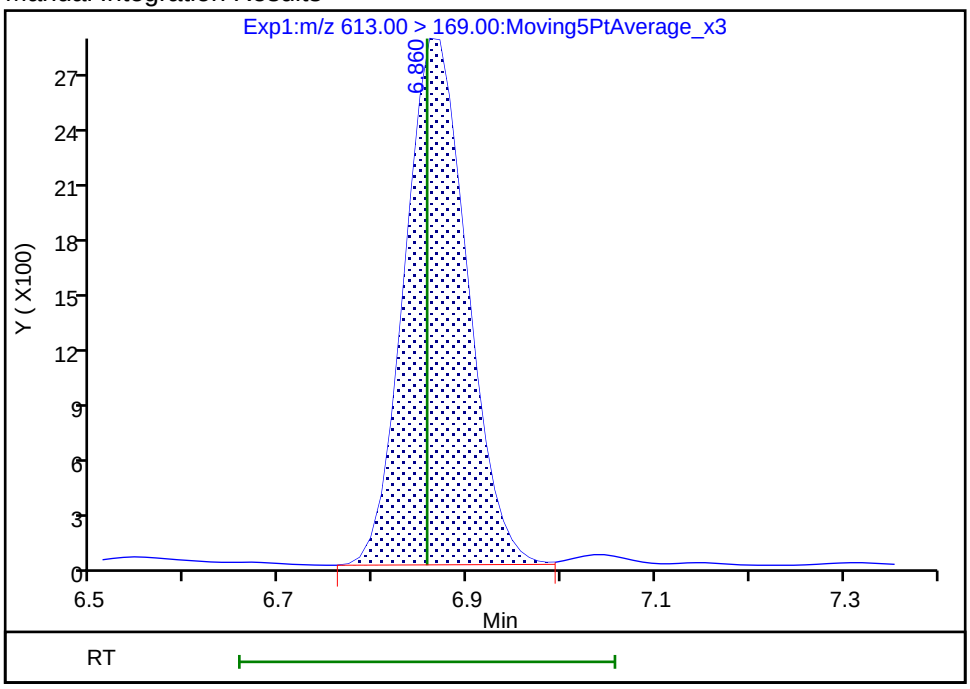
Processing Integration Results

RT: 6.86
Area: 13491
Amount: 0.500036
Amount Units: ng/ml



Manual Integration Results

RT: 6.86
Area: 13296
Amount: 0.513024
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:45:30

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-03.d
Lims ID: IC CAL3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 22-Feb-2022 15:34:15 ALS Bottle#: 20004 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL3
Misc. Info.: Plate: 1 Rack: 1 410-0050930-003
Operator ID: US19_USR_INS20260 Instrument ID: 30733
Sublist: chrom-PFAS_30733_XList_2*sub1

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 10:05:20 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1604

First Level Reviewer: fellenbauma Date: 22-Feb-2022 20:48:43
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										M
175.00 > 97.00	1.477	1.481	-0.004	0.372	20942	2.07		103	237	M
1 PPF Acid										
163.00 > 119.00	1.837	1.838	-0.001	0.463	159687	1.97		98.3	1876	
96 PFMOAA										
179.00 > 85.00	2.942	2.948	-0.006	0.741	95982	1.93		96.7	1035	
100 R-PSDA										
441.00 > 241.00	3.955	3.955	0.0	0.863	6825	1.99		99.6	496	
99 R-EVE										
405.00 > 217.00	3.955	3.957	-0.002	0.996	24809	1.95		97.5	1323	
105 Hydrolyzed PSDA										
439.00 > 343.00	3.972	3.972	0.0	0.867	35249	2.05		102	2262	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.972	3.977	-0.005	1.000	320295	2.06		103	6559	
D 3 13C4 PFBA										
217.00 > 172.00	3.972	3.977	-0.005	0.998	1648826	10.4		104	91849	
* 4 13C3-PFBA										
216.00 > 172.00	3.981	3.979	0.002		714023	5.00			1766	
102 PMPA										
229.00 > 185.00	4.108	4.105	0.003	1.034	137874	1.92		95.9	2683	
5 PFPrS										
249.00 > 99.00	4.160	4.165	-0.005	1.047	72161	1.91		104	5021	
103 NVHOS										
297.00 > 135.00	4.201	4.199	0.002	0.917	67216	2.14		107	4736	
6 PFECA F										
229.00 > 85.00	4.223	4.225	-0.002	1.063	328963	2.22		111	24453	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 PFO2HxA										
245.00 > 85.00	4.413	4.411	0.002	1.111	99699	2.00		99.9	6841	
7 Perfluoropentanoic acid										
263.00 > 219.00	4.524	4.522	0.002	1.000	317677	2.17		108	10218	
9 3:3 FTCA										
241.00 > 177.00	4.524	4.525	-0.001	1.000	18656	1.97		98.7	1364	
D 8 13C5 PFPeA										
268.00 > 223.00	4.524	4.529	-0.005	1.137	1410804	10.3		103	79393	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.572	4.579	-0.007	0.998	217953	1.84	Target=3.22	104	16462	
299.00 > 99.00	4.572	4.579	-0.007	0.998	65273		3.34(1.61-4.83)	104	4998	
D 11 13C3 PFBS										
302.00 > 80.00	4.581	4.580	0.001	1.151	1027896	9.46		101	78514	
91 PEPA										
279.00 > 235.00	4.636	4.635	0.001	1.167	60121	1.99		99.3	2340	
12 PFECA A										
279.00 > 85.00	4.653	4.658	-0.005	1.016	223415	2.13		106	18250	
13 PES										
315.00 > 135.00	4.747	4.746	0.001	1.036	670801	1.84		103	55618	
14 PFECA B										
201.00 > 85.00	4.879	4.877	0.002	1.065	268526	2.08	Target=1.44	104	3611	
295.00 > 201.00	4.870	4.877	-0.007	1.063	185955		1.44(0.72-2.15)	104	13381	
15 4:2 FTS										
327.00 > 307.00	4.909	4.907	0.002	1.000	138992	1.97	Target=1.53	105	10019	
327.00 > 81.00	4.899	4.907	-0.008	0.998	79238		1.75(0.77-2.30)	105	5563	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.909	4.907	0.002	0.860	212074	9.86		106	15280	
D 19 13C5 PFHxA										
318.00 > 273.00	4.950	4.948	0.002	0.868	1772970	10.6		106	94715	
17 Perfluorohexanoic acid										
313.00 > 269.00	4.940	4.946	-0.006	0.998	285838	1.92	Target=16.07	96.1	10209	
313.00 > 119.00	4.940	4.946	-0.006	0.998	17415		16.41(8.04-24.11)	96.1	1238	
$ 18 13C2 PFHxA										
315.00 > 270.00	4.950	4.948	0.002	0.868	1371583	NC			98298	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.960	4.961	-0.001	1.083	209177	2.02	Target=3.46	107	15241	
349.00 > 99.00	4.960	4.961	-0.001	1.083	60673		3.45(1.73-5.19)	107	4459	
93 PFO3OA										
311.00 > 85.00	5.000	5.005	-0.005	1.259	91788	1.95		97.4	6918	
21 HFPO-DA										
329.00 > 285.00	5.071	5.074	-0.003	1.000	94885	2.10		105	5452	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.071	5.077	-0.006	0.889	236517	9.60		96.0	18320	
97 Hydro-EVE Acid										
427.00 > 283.00	5.284	5.286	-0.002	1.330	402277	1.93		96.5	839	
94 R-PSDCA										
397.00 > 217.00	5.284	5.289	-0.005	1.153	517231	1.98		98.9	36015	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
106 Hydro-PS Acid										M
463.00 > 263.00	5.274	5.307	-0.033	1.151	428050	2.07		104	99738	M
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.337	5.335	0.002	1.000	436096	2.21	Target=3.65	110	15863	
363.00 > 169.00	5.337	5.335	0.002	1.000	110677		3.94(1.82-5.47)	110	7956	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.337	5.335	0.002	1.000	222396	1.96	Target=3.59	107	617	
399.00 > 99.00	5.337	5.335	0.002	1.000	61039		3.64(1.79-5.38)	107	110	
D 25 13C3 PFHxS										
402.00 > 80.00	5.337	5.335	0.002	0.935	988880	9.55		101	72268	
D 24 13C4 PFHpA										
367.00 > 322.00	5.337	5.336	0.001	0.935	1953952	10.5		105	85647	
27 DONA										
377.00 > 251.00	5.383	5.381	0.002	1.009	500852	2.01		106	39530	
98 PFECA G										
379.00 > 185.00	5.400	5.399	0.001	1.359	498299	2.09		104	40402	
28 5:3 FTCA										M
341.00 > 237.00	5.416	5.414	0.002	1.015	83656	2.12	Target=50.84	106	6590	M
339.00 > 295.00	5.412	5.414	-0.002	0.000	0		0.00(25.42-76.26)	106		
29 6:2 FTUCA										
357.00 > 293.00	5.433	5.438	-0.005	0.998	488458	1.98		99.1	28945	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.442	5.439	0.003	0.954	1813180	11.3		113	109249	
32 6:2 FTCA										
377.00 > 293.00	5.458	5.456	0.002	1.000	31119	1.83		91.3	2456	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.458	5.456	0.002	0.957	161624	10.9		109	12755	
95 PFO4DA										
377.00 > 85.00	5.511	5.513	-0.002	1.387	105572	1.93		96.7	742	
104 PS Acid										
443.00 > 147.00	5.553	5.552	0.001	1.212	148852	2.27		113	12164	
90 EVE Acid										
407.00 > 263.00	5.570	5.573	-0.003	1.402	340440	2.14		107	27357	
33 PFECHS										
461.00 > 381.00	5.639	5.640	-0.001	1.057	350215	1.89	Target=1.94	102	25876	
461.00 > 99.00	5.639	5.640	-0.001	1.057	184340		1.90(0.97-2.91)	102	13699	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.687	5.685	0.002	1.066	219197	2.07	Target=3.50	108	16393	
449.00 > 99.00	5.687	5.685	0.002	1.066	58162		3.77(1.75-5.24)	108	4288	
34 6:2 FTS										
427.00 > 407.00	5.687	5.685	0.002	1.000	82211	1.96	Target=1.31	104	5975	
427.00 > 81.00	5.687	5.685	0.002	1.000	60403		1.36(0.65-1.96)	104	4316	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.687	5.686	0.001	0.997	88256	9.92		104	6390	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.706	5.704	0.002	1.000	351645	2.16	Target=2.48	108	76419	
413.00 > 169.00	5.706	5.704	0.002	1.000	135493		2.60(1.24-3.72)	108	422	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 38 13C2 PFOA										
415.00 > 370.00	5.706	5.704	0.002		774810	5.00			57084	
D 37 13C8 PFOA										
421.00 > 376.00	5.706	5.704	0.002	1.000	2127092	10.4		104	117466	
$ 39 13C4 PFOA										
417.00 > 372.00	5.706	5.704	0.002	1.000	2030097	NC			112696	
101 TAF										
443.00 > 85.00	5.945	5.947	-0.002	1.497	93380	1.92		95.9	7272	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00	6.025	6.022	0.003	1.000	195331	1.72	Target=4.38	93.1	155	
499.00 > 99.00	6.015	6.022	-0.007	0.998	44867		4.35(2.19-6.57)	93.1	123	
* 42 13C4 PFOS										
503.00 > 80.00	6.025	6.023	0.002		489615	4.78			37278	
D 41 13C8 PFOS										
507.00 > 80.00	6.025	6.023	0.002	1.000	1016763	9.84		103	33067	
44 Perfluorononanoic acid										
463.00 > 419.00	6.043	6.041	0.002	1.000	337948	2.10	Target=4.84	105	12698	
463.00 > 169.00	6.034	6.041	-0.007	0.998	63432		5.33(2.42-7.25)	105	3650	
D 45 13C9 PFNA										
472.00 > 427.00	6.043	6.041	0.002	1.003	1741409	10.1		101	98123	
46 7:3 FTCA										
441.00 > 337.00	6.147	6.144	0.003	1.126	99902	1.88		93.8	7763	
47 8:2 FTUCA										
457.00 > 393.00	6.147	6.150	-0.003	0.999	490632	2.14		107	39210	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.156	6.155	0.001	0.970	2147770	9.46		94.6	102209	
49 8:2 FTCA										
477.00 > 393.00	6.171	6.169	0.002	1.000	31964	2.23		111	2580	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.171	6.169	0.002	0.973	152908	10.1		101	12534	
51 9ClFOS										
531.00 > 351.00	6.194	6.193	0.001	1.028	372077	1.92		103	23286	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.325	6.321	0.004	1.050	210281	1.98	Target=4.28	103	15575	
549.00 > 99.00	6.315	6.321	-0.006	1.048	49434		4.25(2.14-6.42)	103	3641	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.344	6.344	0.0	0.998	382286	1.98	Target=10.44	99.2	16484	
513.00 > 169.00	6.344	6.344	0.0	0.998	35131		10.88(5.22-15.66)	99.2	2536	
56 8:2 FTS										
527.00 > 507.00	6.354	6.348	0.006	1.000	83961	1.90	Target=1.54	99.1	5916	
527.00 > 81.00	6.344	6.348	-0.004	0.998	51359		1.63(0.77-2.31)	99.1	3641	
* 55 13C2 PFDA										
515.00 > 470.00	6.344	6.346	-0.002		1029387	5.00			54781	
D 54 13C6 PFDA										
519.00 > 474.00	6.354	6.348	0.006	1.002	1968353	9.60		96.0	104381	
D 57 M2-8:2 FTS										
529.00 > 81.00	6.354	6.354	0.0	1.002	54799	9.81		102	3888	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.418	6.419	-0.001	0.998	361967	1.93		96.4	24872	
D 59 13C8 FOSA										
506.00 > 78.00	6.428	6.425	0.003	1.013	1868144	9.64		96.4	130325	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.500	6.494	0.006	1.025	665897	9.63		96.3	45074	
60 NMeFOSAA										M
570.00 > 419.00	6.500	6.497	0.003	1.000	113025	2.06	Target=1.64	103	41680	M
570.00 > 483.00	6.500	6.497	0.003	1.000	68073		1.66(0.82-2.46)	103	153	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.591	6.590	0.001	1.094	206289	1.87	Target=4.07	97.0	13246	
599.00 > 99.00	6.591	6.590	0.001	1.094	51363		4.02(2.03-6.10)	97.0	3285	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.614	6.618	-0.004	0.998	356096	2.10	Target=8.63	105	11682	
563.00 > 169.00	6.614	6.618	-0.004	0.998	40069		8.89(4.31-12.94)	105	2637	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.626	6.623	0.003	1.161	1691700	NC			83849	
D 65 13C7 PFUnA										
570.00 > 525.00	6.626	6.623	0.003	1.044	1922140	9.65		96.5	94576	
67 NEtFOSAA										
584.00 > 419.00	6.637	6.638	-0.001	1.000	84977	2.14	Target=1.31	107	191	
584.00 > 526.00	6.637	6.638	-0.001	1.000	65313		1.30(0.66-1.97)	107	114	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.637	6.635	0.002	1.046	446354	9.23		92.3	22056	
68 10:2 FTUCA										
557.00 > 493.00	6.724	6.723	0.001	1.000	358901	2.09		104	23158	
69 11ClFOS										
631.00 > 451.00	6.724	6.725	-0.001	1.116	265409	1.87		101	17197	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.724	6.725	-0.001	1.060	1681798	9.80		98.0	108500	
71 10:2 FTCA										
577.00 > 493.00	6.736	6.735	0.001	1.000	17060	2.12		106	1094	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.736	6.741	-0.005	1.062	84182	9.92		99.2	5348	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.859	6.857	0.002	1.000	298352	2.11	Target=5.13	105	16067	
613.00 > 169.00	6.848	6.857	-0.009	0.999	55374		5.39(2.56-7.69)	105	3970	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.859	6.863	-0.004	1.081	288660	9.40		94.0	12327	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.859	6.858	0.001	1.081	1391002	9.42		94.2	99387	
77 N-MeFOSE-M										
616.00 > 59.00	6.869	6.870	-0.001	1.001	65237	2.11		106	3545	
75 10:2 FTS										
627.00 > 607.00	6.869	6.874	-0.005	1.081	51227	1.75	Target=0.83	90.6	3649	
627.00 > 81.00	6.869	6.874	-0.005	1.081	65108		0.79(0.42-1.25)	90.6	4709	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
78 NMeFOSA										
512.00 > 169.00	6.879	6.880	-0.001	1.000	40785	1.89		94.6	2976	
D 79 d3-NMePFOSA										
515.00 > 169.00	6.879	6.880	-0.001	1.084	191975	9.72		97.2	4205	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.023	7.022	0.001	1.107	340043	9.69		96.9	12206	
82 N-EtFOSE-M										
630.00 > 59.00	7.023	7.027	-0.004	1.000	76761	2.17		108	5491	
80 PFDoS										
699.00 > 80.00	7.023	7.030	-0.007	1.166	202090	1.99		103	14374	
84 N-EtFOSA-M										
526.00 > 169.00	7.045	7.044	0.001	1.002	37558	1.91		95.7	2725	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.034	7.042	-0.008	1.109	185252	9.83		98.3	9818	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.055	7.057	-0.002	1.029	222948	2.15	Target=4.34	107	9674	
663.00 > 169.00	7.055	7.057	-0.002	1.029	49321		4.52(2.17-6.51)	107	3549	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.234	7.234	0.0	1.000	230284	2.25	Target=5.08	112	9714	
713.00 > 169.00	7.234	7.234	0.0	1.000	43406		5.31(2.54-7.61)	112	3057	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.234	7.235	-0.001	1.140	1115535	8.94		89.4	58037	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.541	7.540	0.001	1.042	242281	2.12	Target=9.01	106	15575	
813.00 > 169.00	7.533	7.540	-0.007	1.041	25933		9.34(4.50-13.51)	106	2203	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.769	7.773	-0.004	1.074	102826	2.16	Target=7.79	108	11481	
913.00 > 169.00	7.769	7.773	-0.004	1.074	13438		7.65(3.89-11.68)	108	1502	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD3_00014 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 10:05:22 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-03.d

Injection Date: 22-Feb-2022 15:34:15 Instrument ID: 30733

Lims ID: IC CAL3

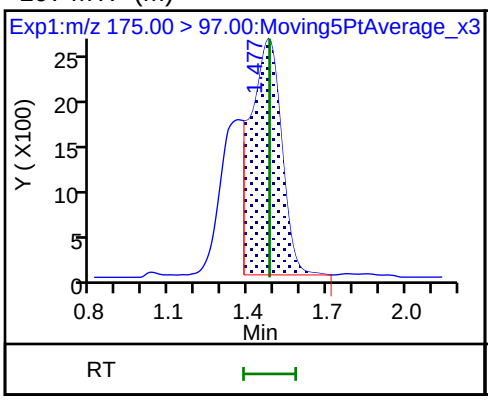
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20004 Worklist Smp#: 3

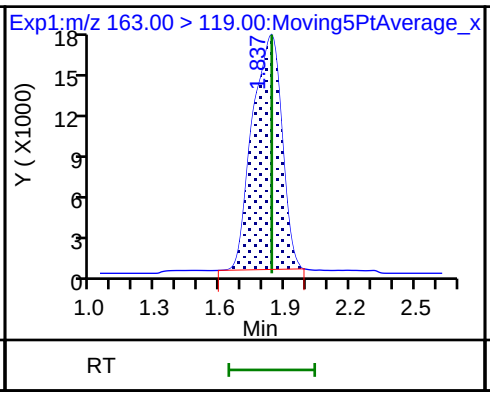
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

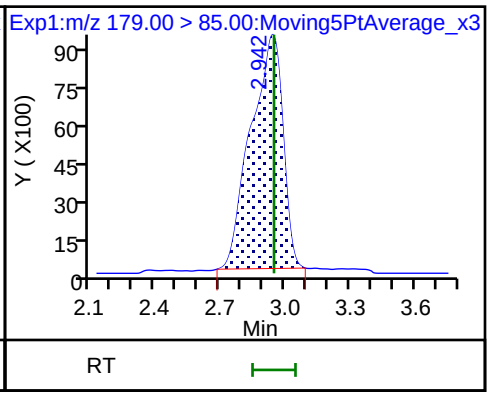
107 MTP (M)



1 PPF Acid



96 PFMOAA



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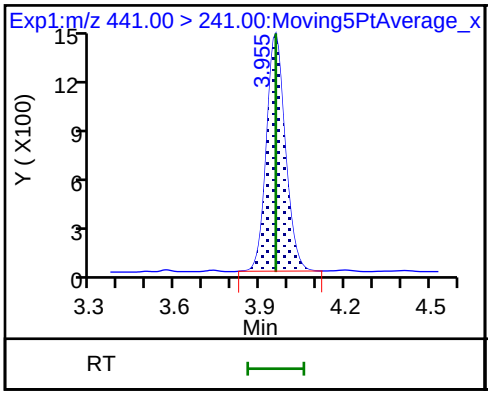

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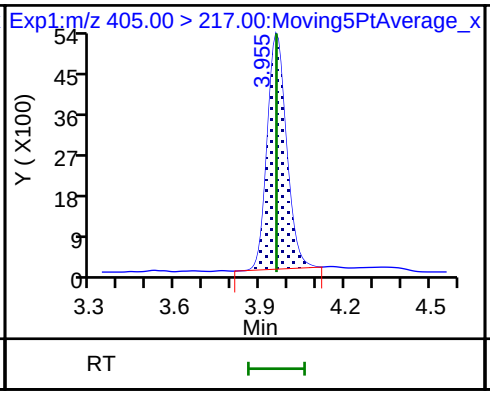
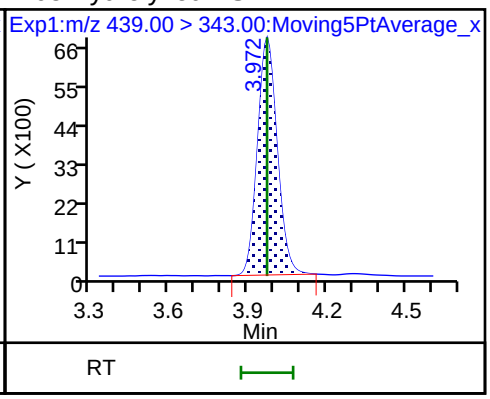
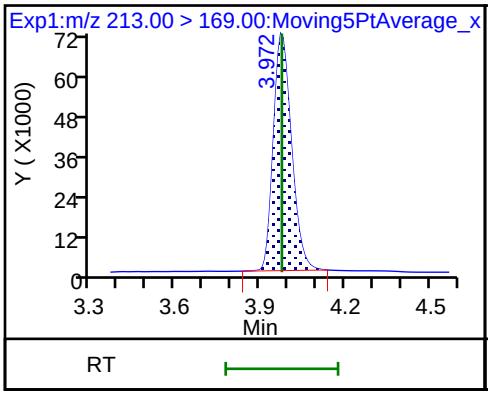


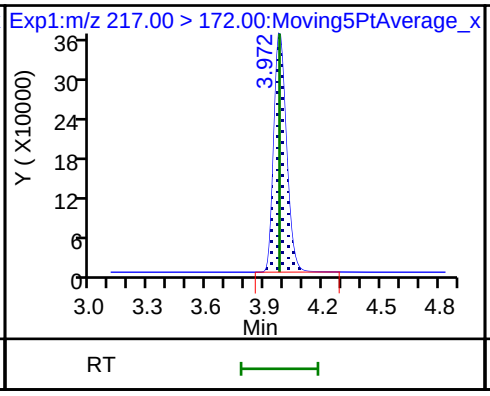
105 Hydrolyzed PSDA



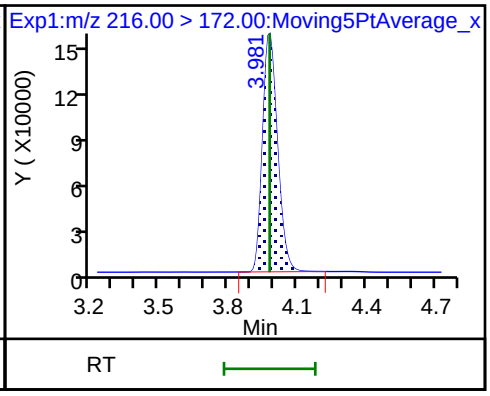
2 Perfluorobutanoic acid



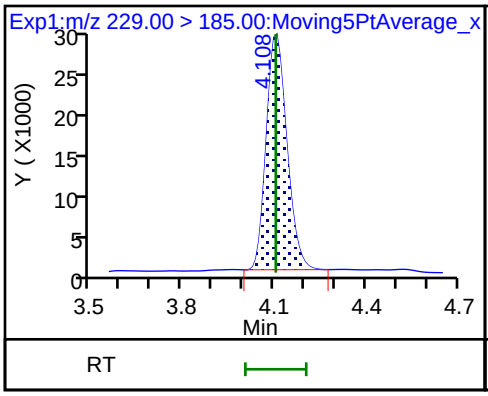
D 3 13C4 PFBA



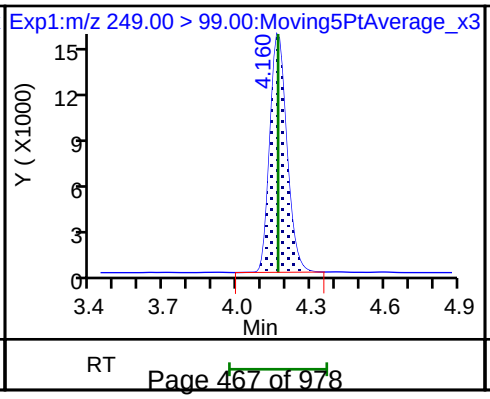
* 4 13C3-PFBA



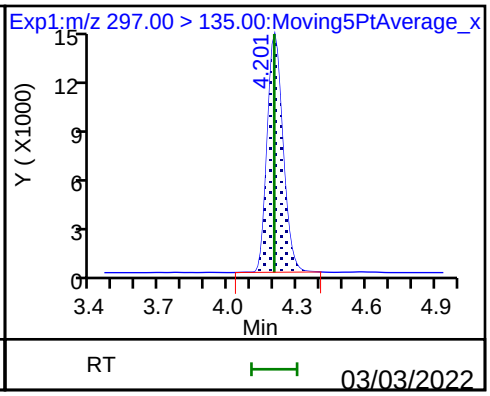
102 PMPA



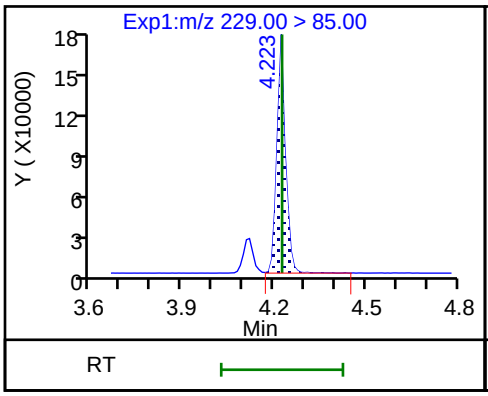
5 PFPrS



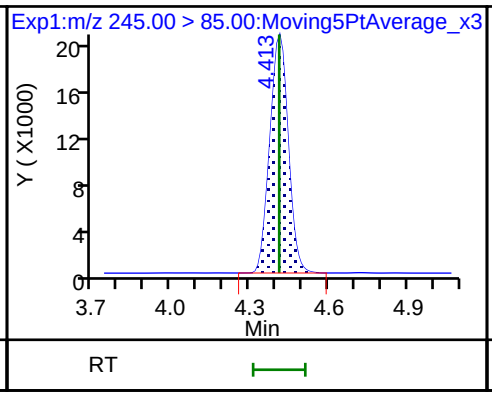
103 NVHOS



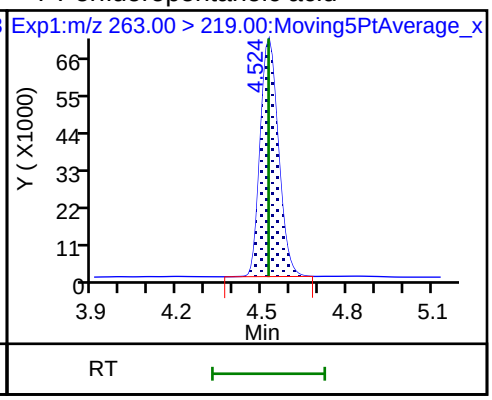
6 PFECA F



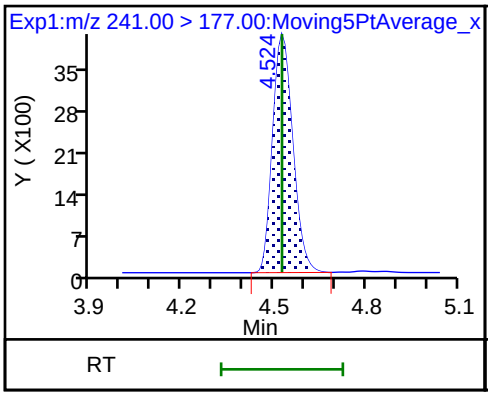
92 PFO2HxA



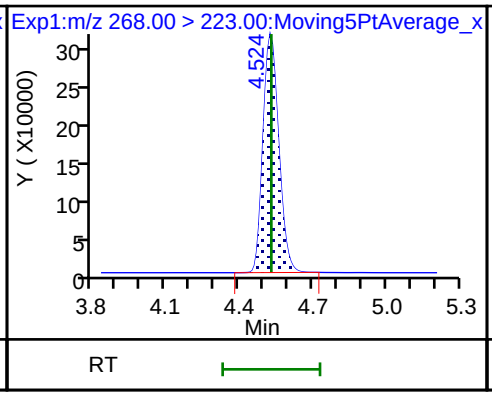
7 Perfluoropentanoic acid



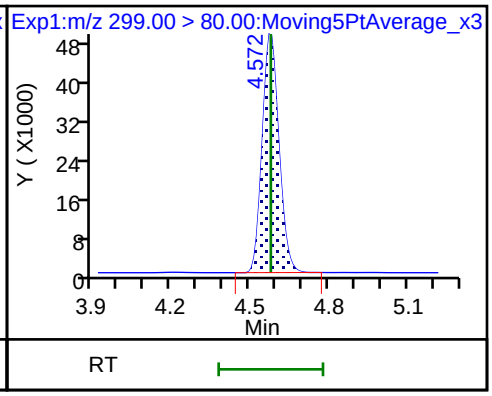
9 3:3 FTCA



D 8 13C5 PFPeA



10 Perfluorobutanesulfonic acid



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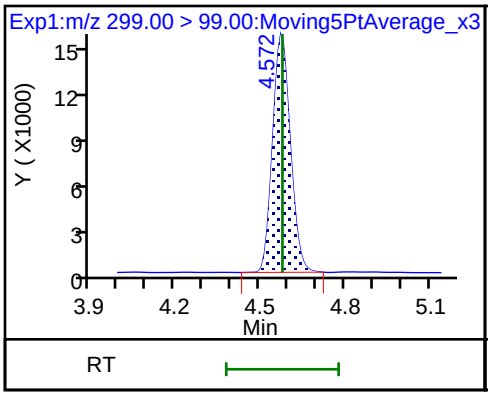

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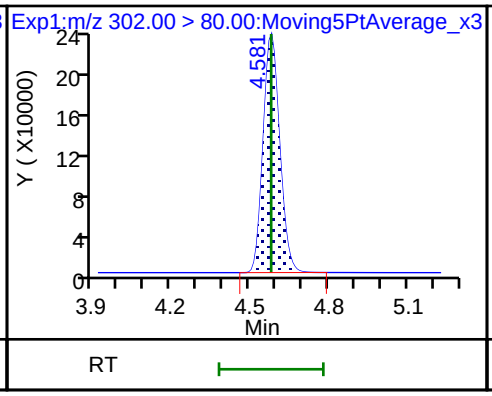

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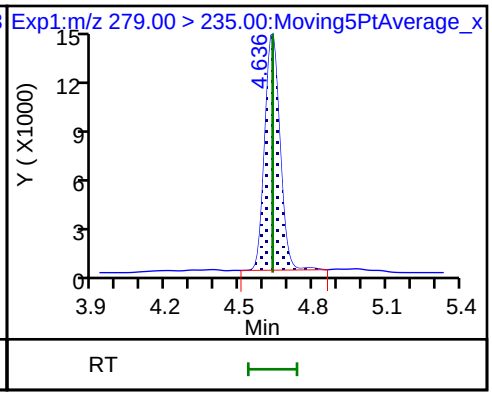
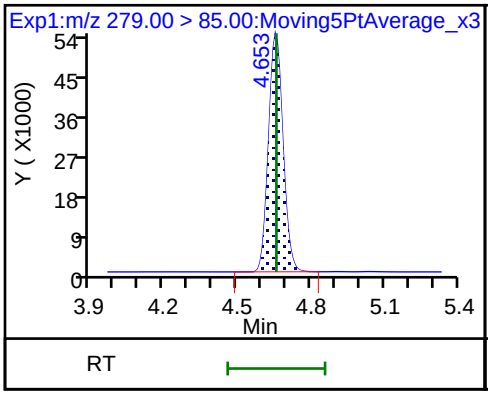
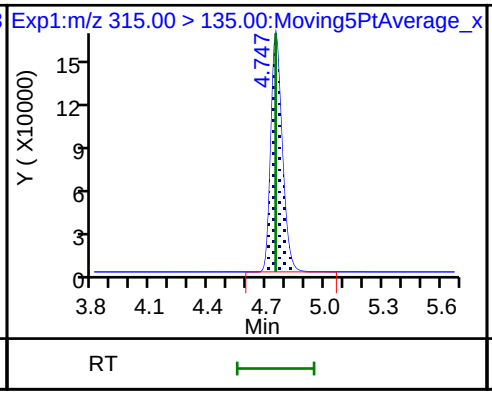


12 PFECA A



13 PES



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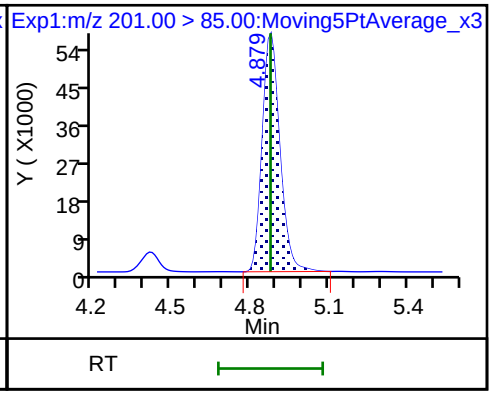
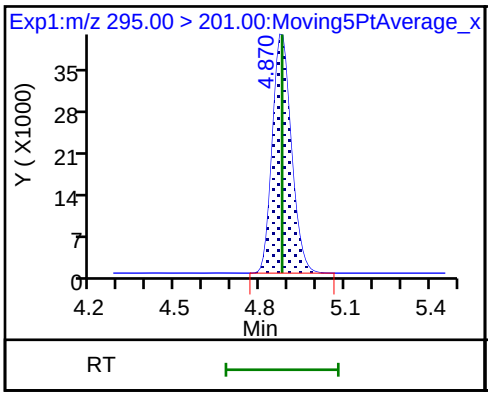
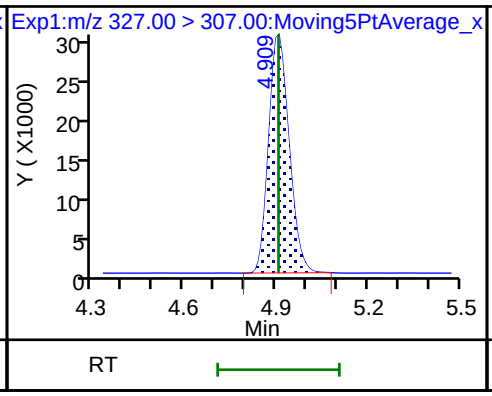


14 PFECA B



15 4:2 FTS



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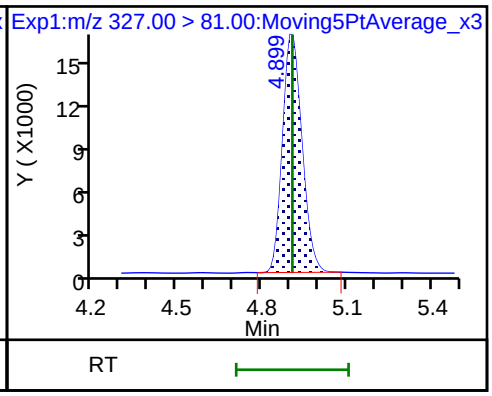
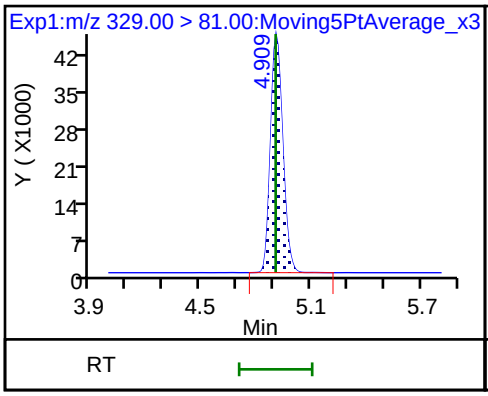
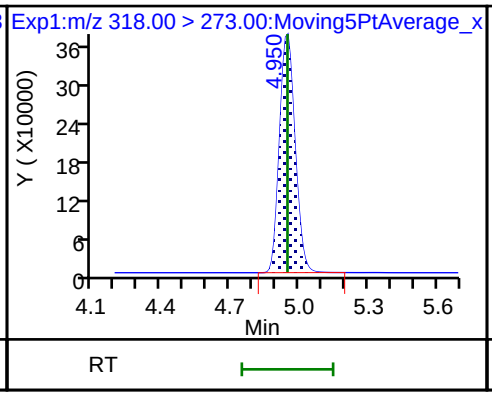


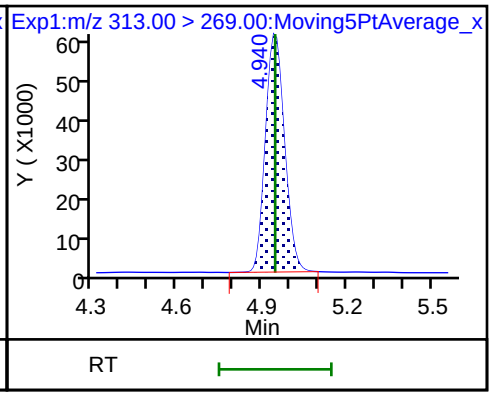
D 16 M2-4:2 FTS



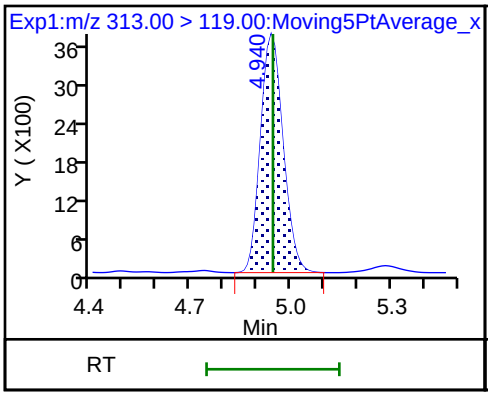
D 19 13C5 PFHxA



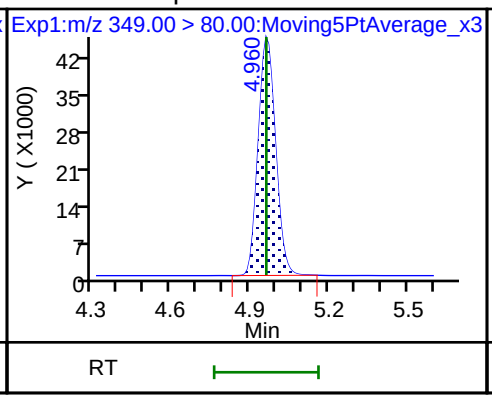
17 Perfluorohexanoic acid



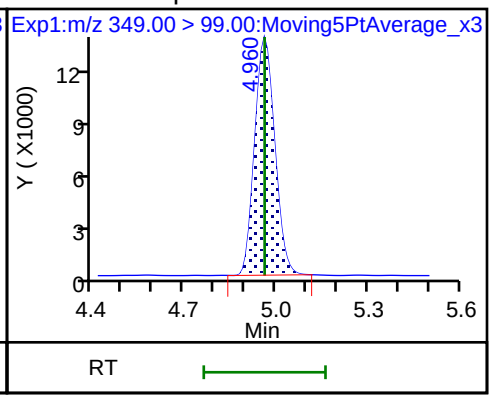
17 Perfluorohexanoic acid



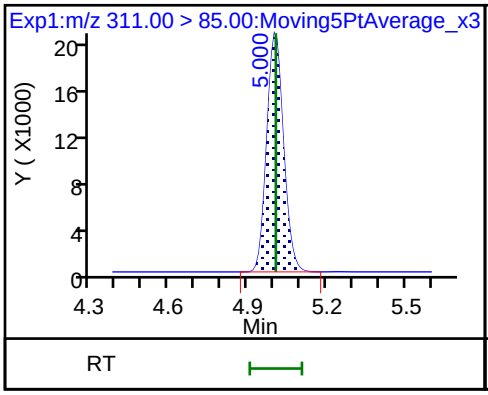
20 Perfluoropentanesulfonic acid



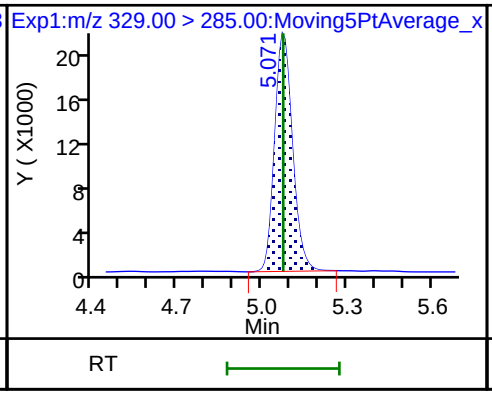
20 Perfluoropentanesulfonic acid



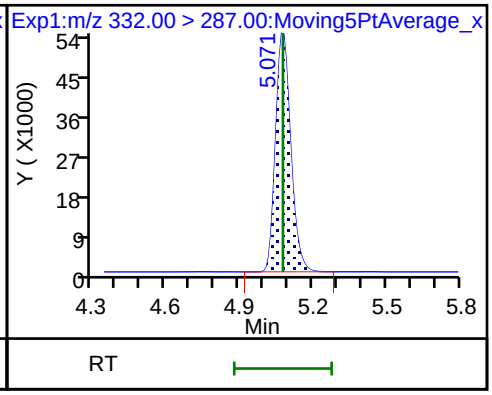
93 PFO3OA



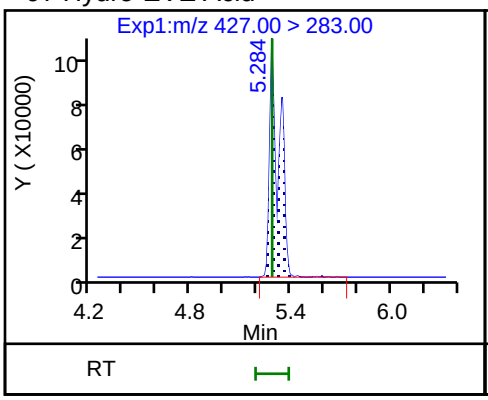
21 HFPO-DA



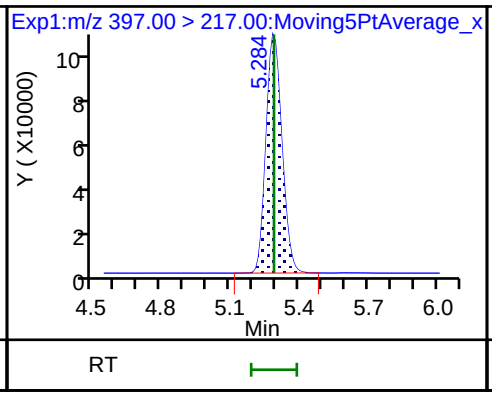
D 22 13C3 HFPO-DA



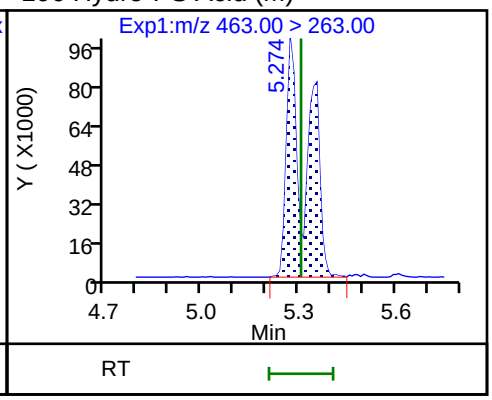
97 Hydro-EVE Acid



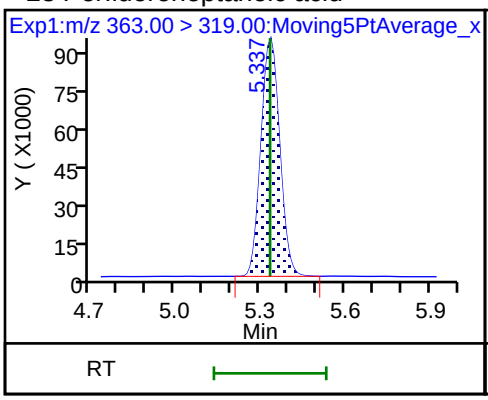
94 R-PSDCA



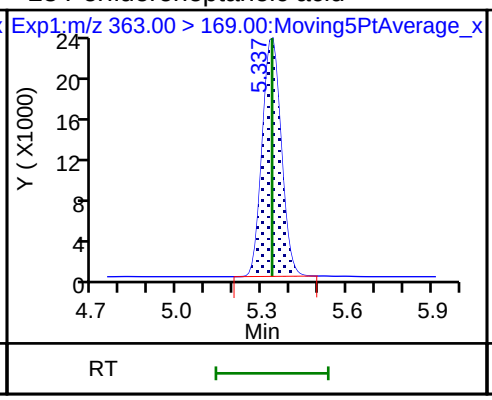
106 Hydro-PS Acid (M)



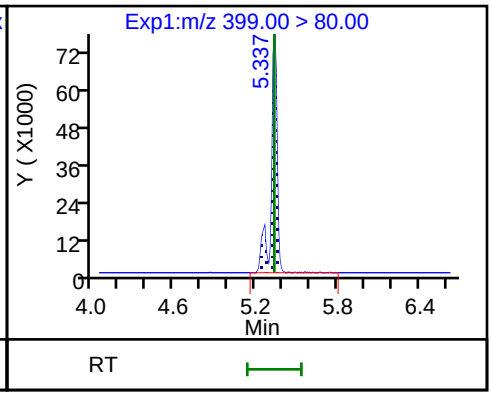
23 Perfluoroheptanoic acid



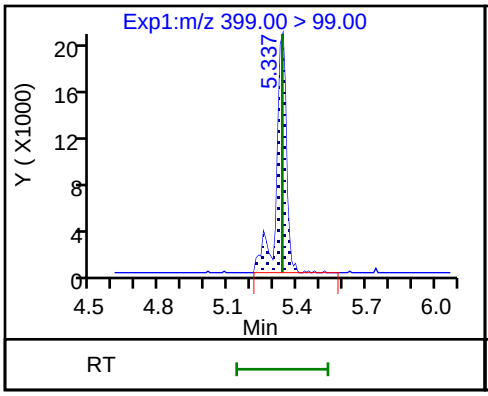
23 Perfluoroheptanoic acid



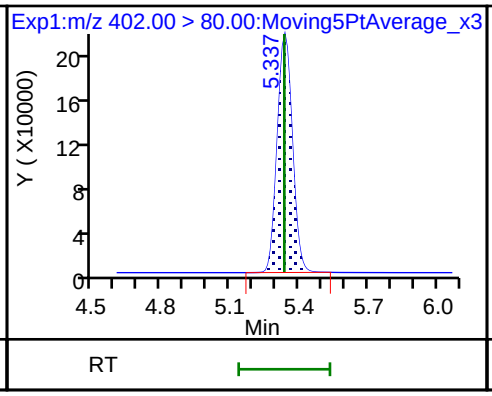
26 Perfluorohexanesulfonic acid



26 Perfluorohexanesulfonic acid



D 25 13C3 PFHxS



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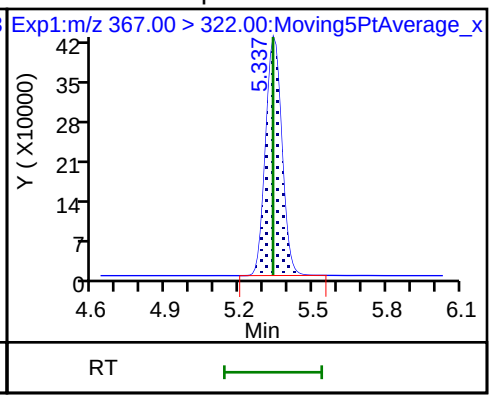
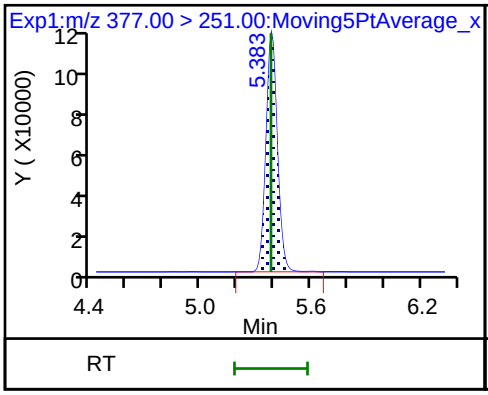
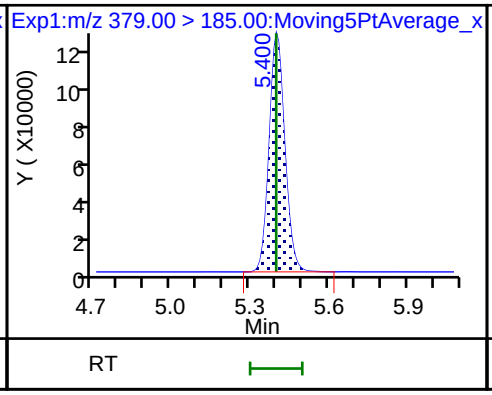


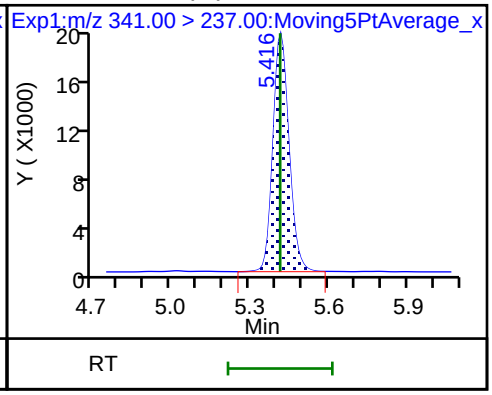
27 DONA



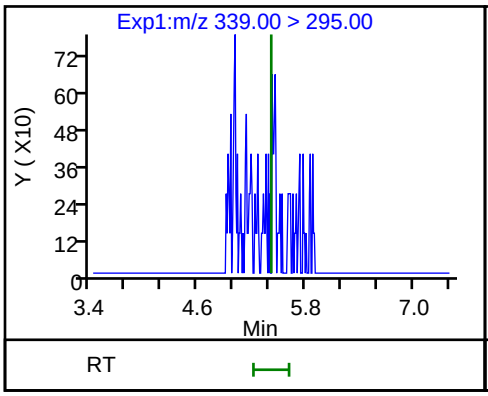
98 PFECA G



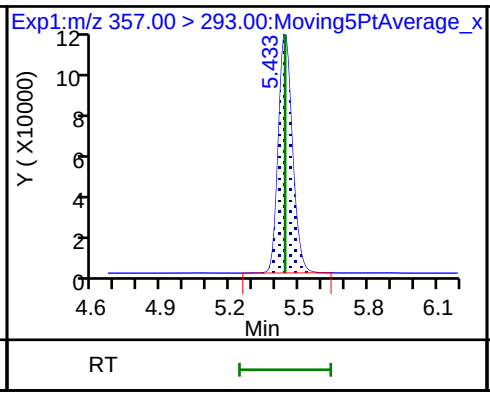
28 5:3 FTCA (M)



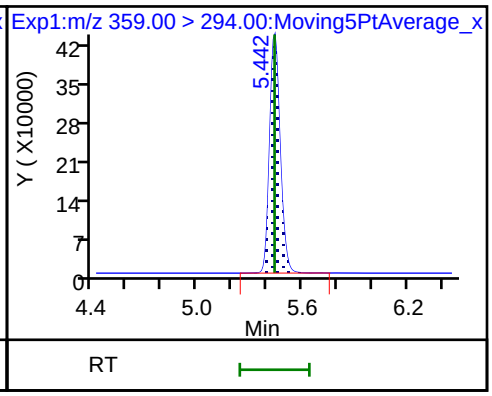
28 5:3 FTCA



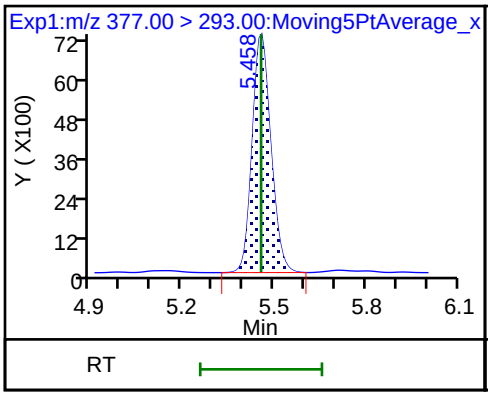
29 6:2 FTUCA



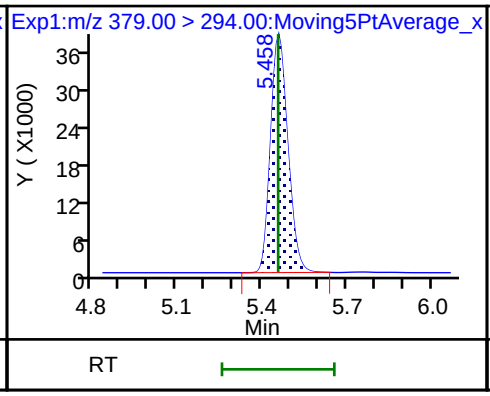
D 30 13C-6:2 FTUCA



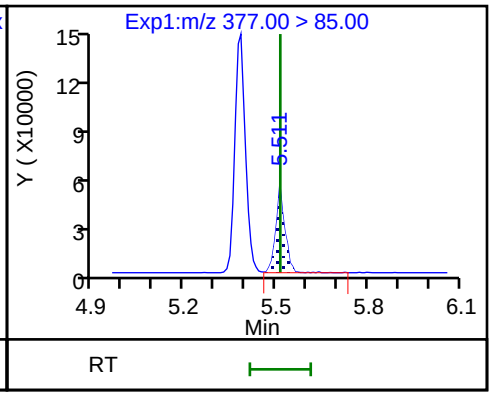
32 6:2 FTCA



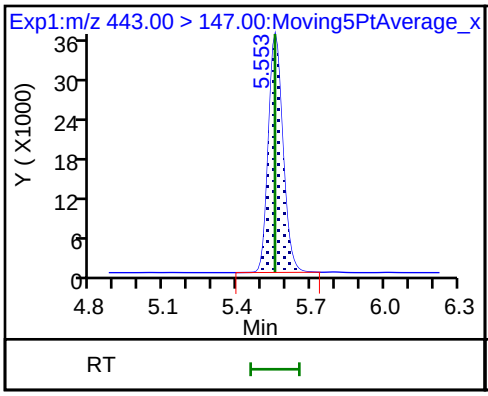
D 31 13C-6:2 FTCA



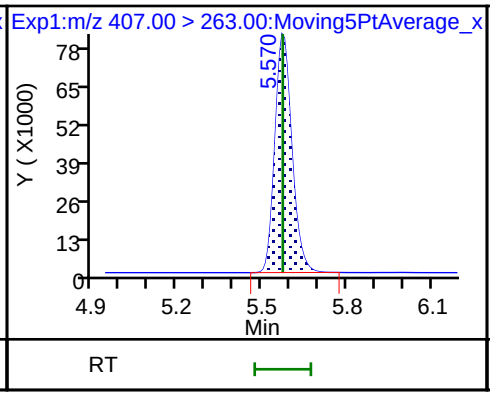
95 PFO4DA



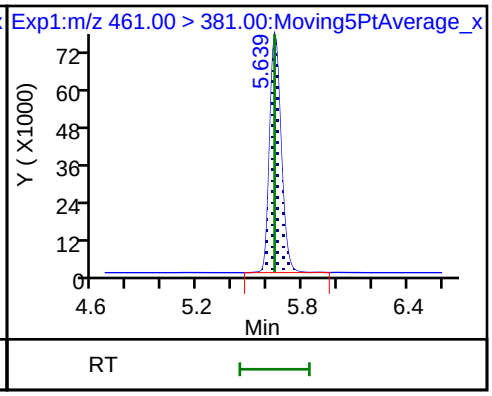
104 PS Acid



90 EVE Acid



33 PFECHS



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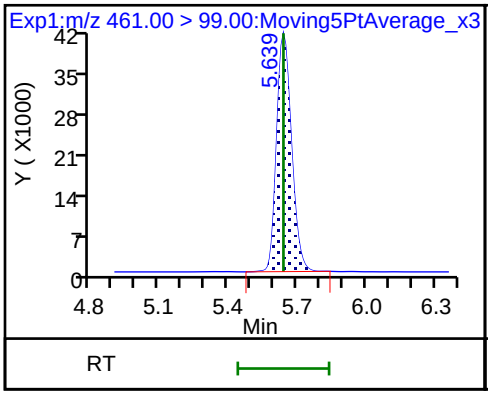
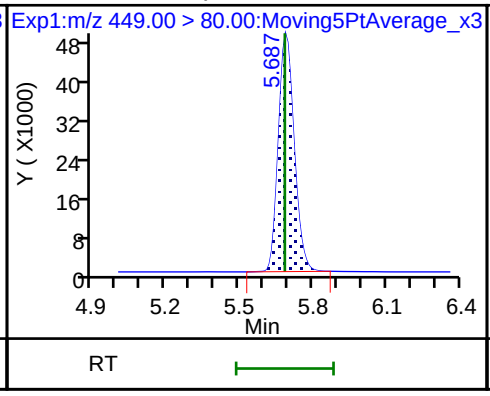
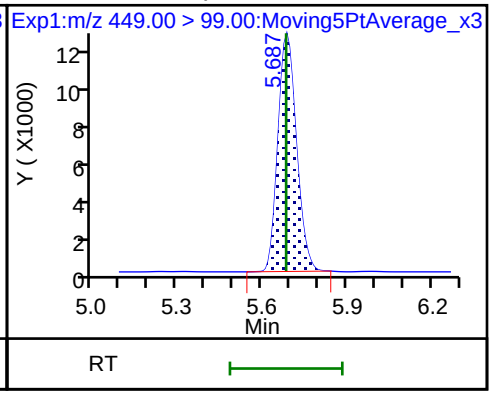


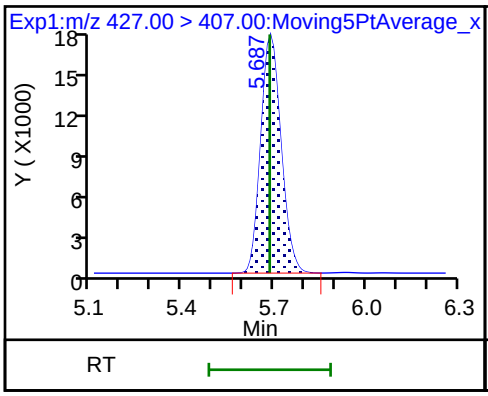
36 Perfluoroheptanesulfonic acid



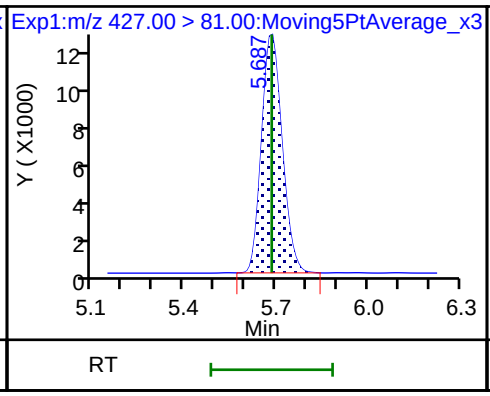
36 Perfluoroheptanesulfonic acid



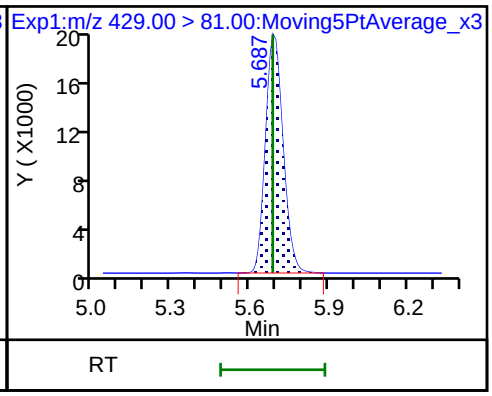
34 6:2 FTS



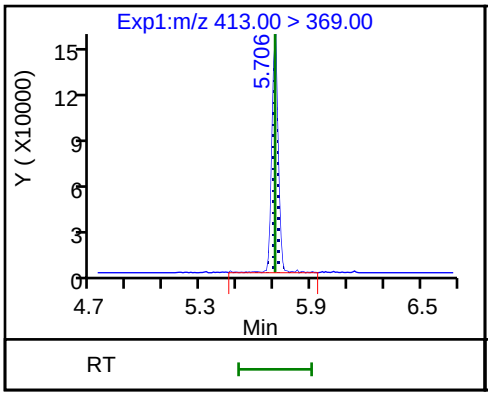
34 6:2 FTS



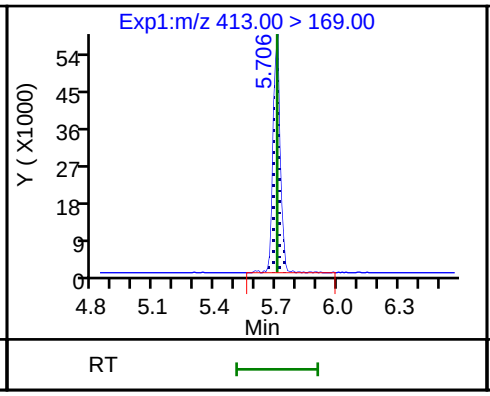
D 35 M2-6:2 FTS



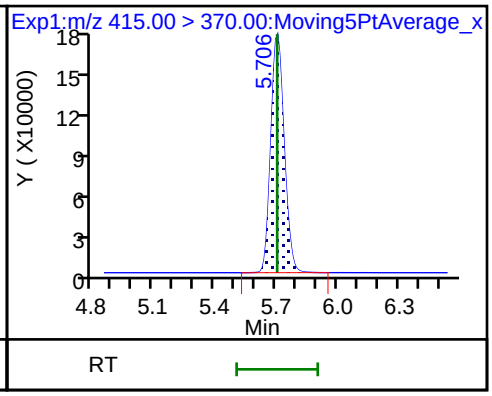
40 Perfluorooctanoic acid



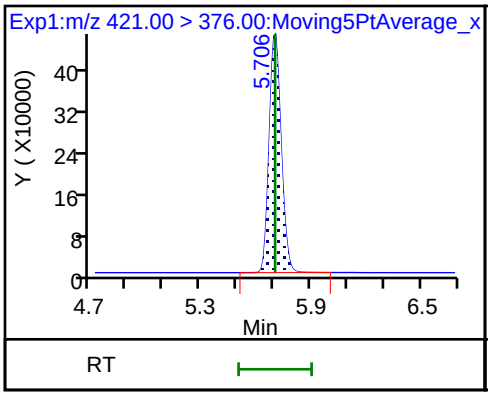
40 Perfluorooctanoic acid



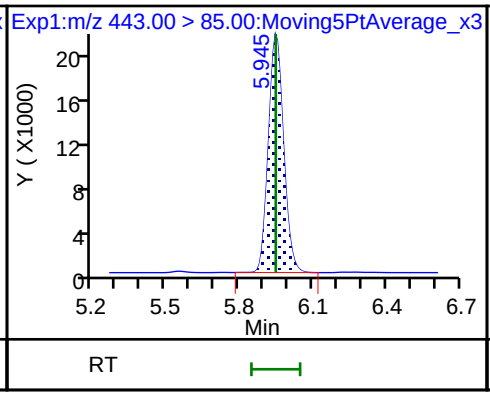
* 38 13C2 PFOA



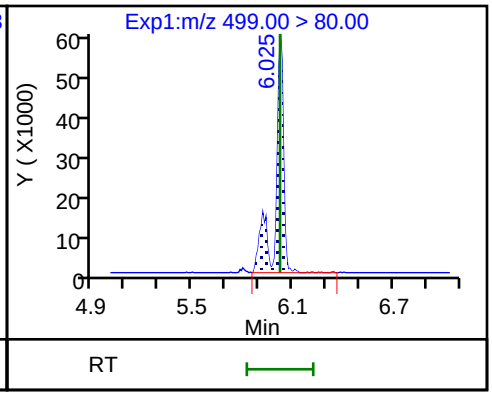
D 37 13C8 PFOA



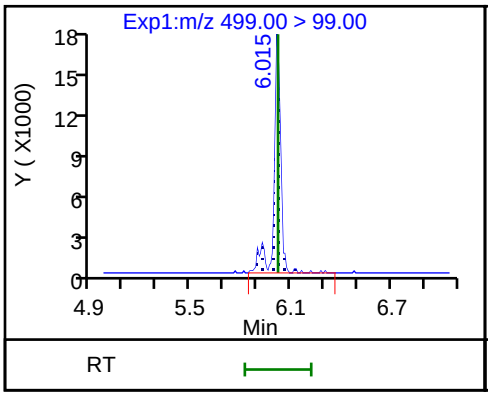
101 TAF



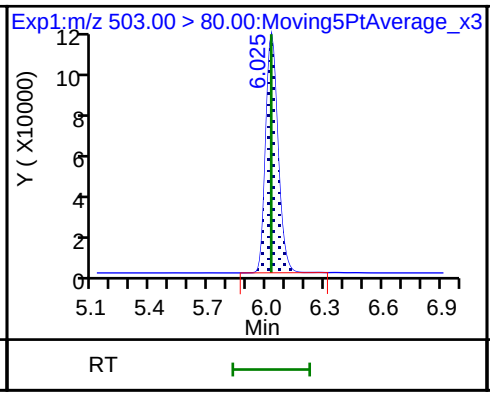
43 Perfluorooctanesulfonic acid



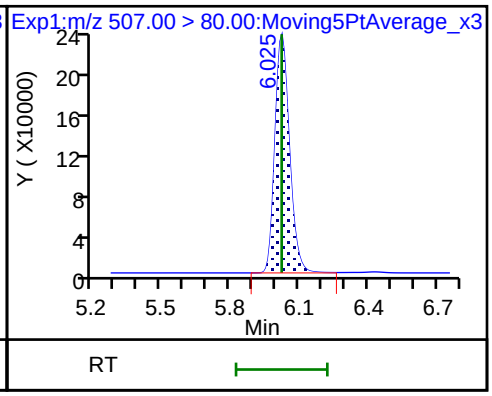
43 Perfluorooctanesulfonic acid



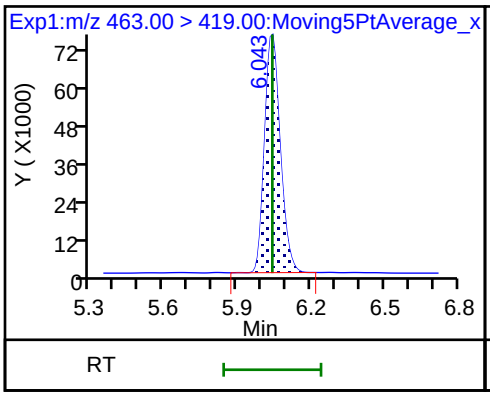
* 42 13C4 PFOS



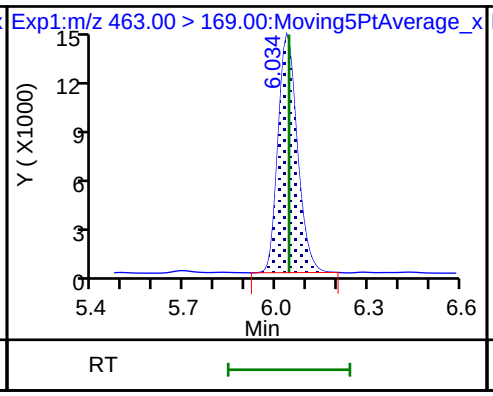
D 41 13C8 PFOS



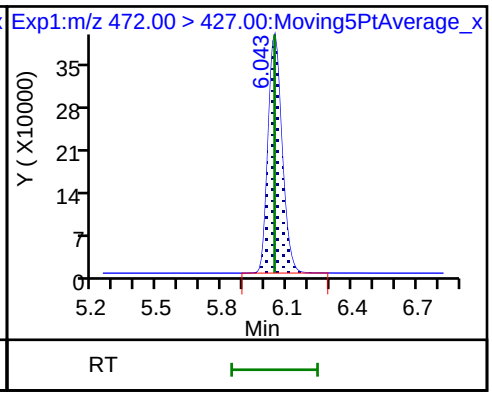
44 Perfluorononanoic acid



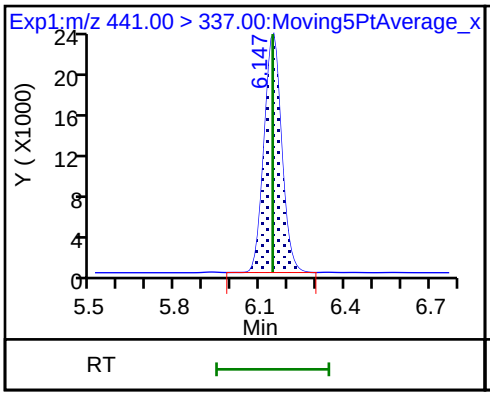
44 Perfluorononanoic acid



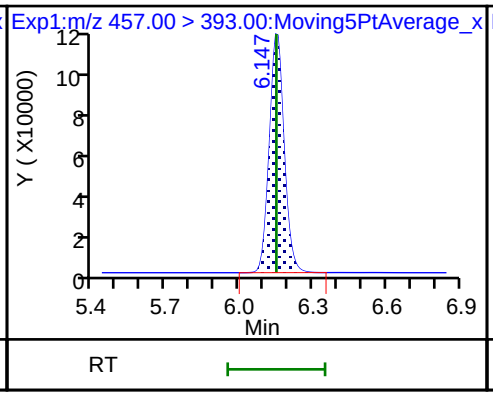
D 45 13C9 PFNA



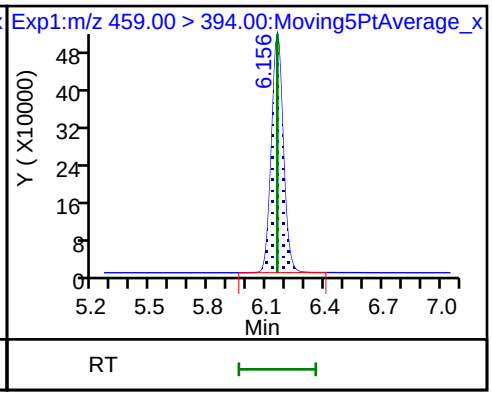
46 7:3 FTCA



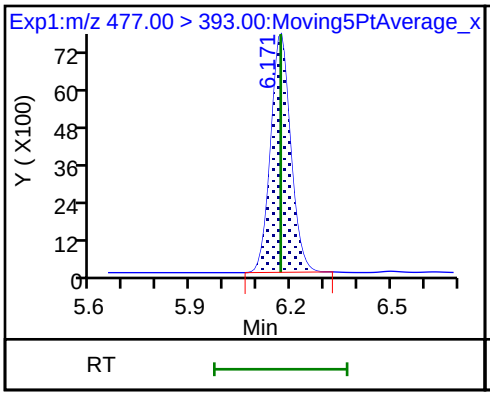
47 8:2 FTUCA



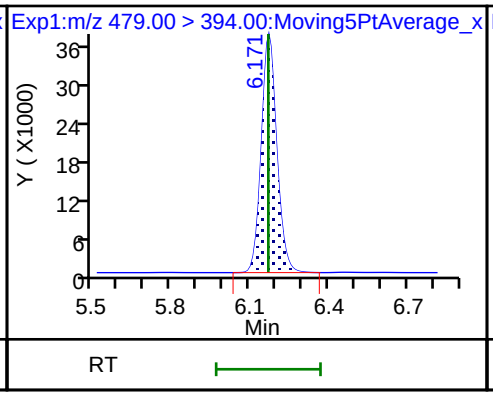
D 48 13C-8:2 FTUCA



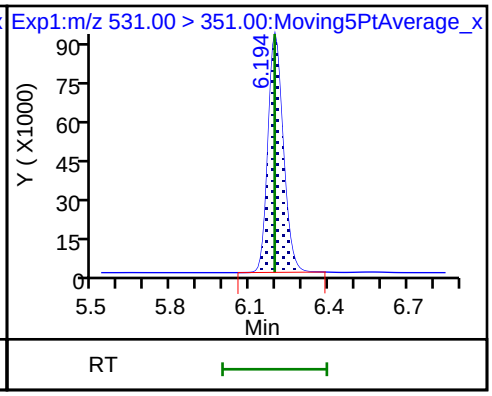
49 8:2 FTCA



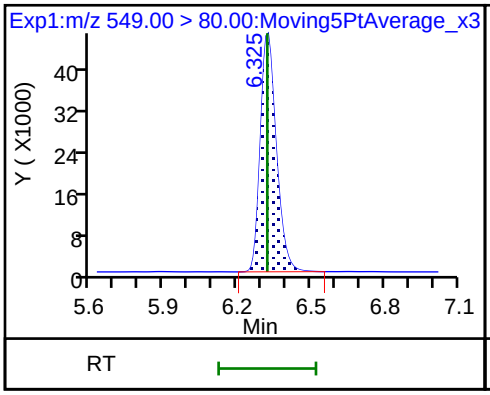
D 50 13C-8:2 FTCA



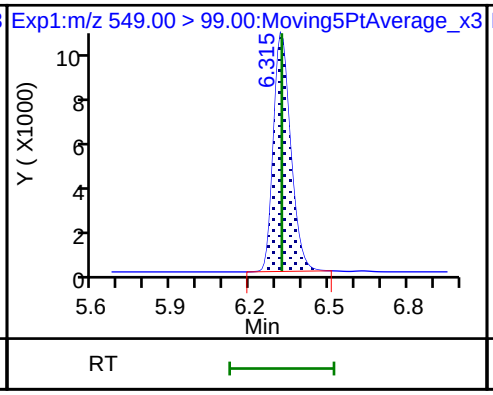
51 9ClFOS



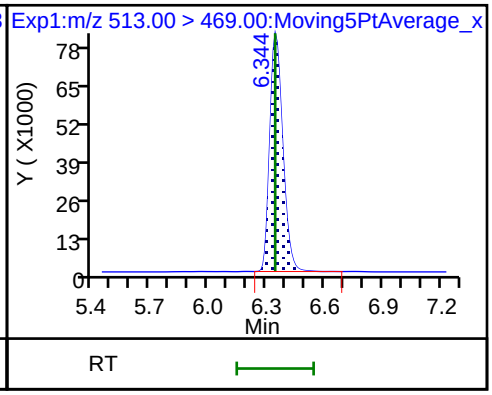
52 Perfluorononanesulfonic acid



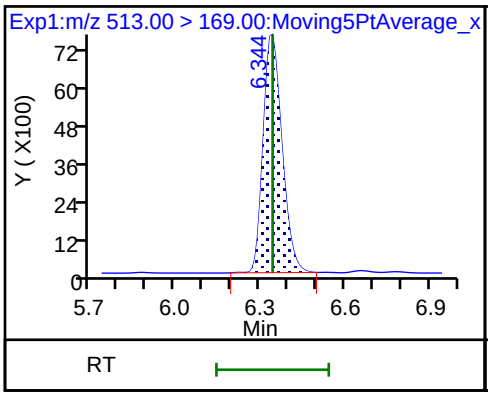
52 Perfluorononanesulfonic acid



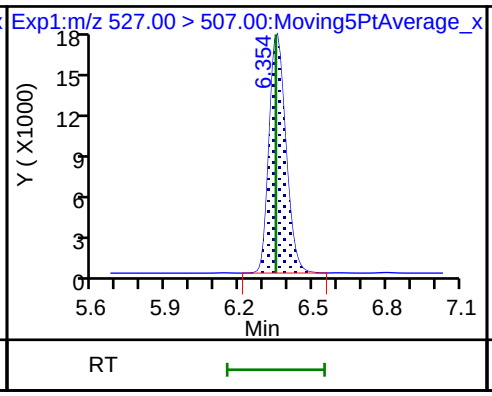
53 Perfluorodecanoic acid



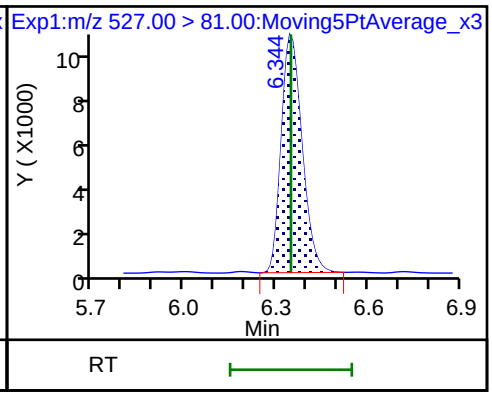
53 Perfluorodecanoic acid



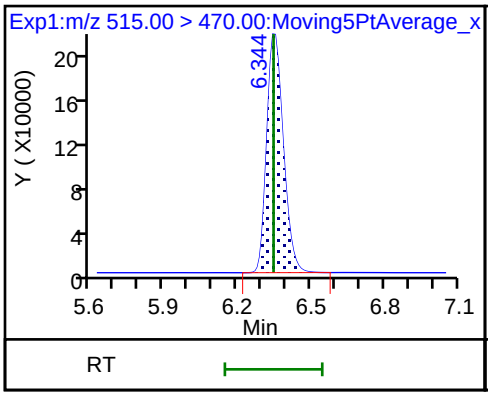
56 8:2 FTS



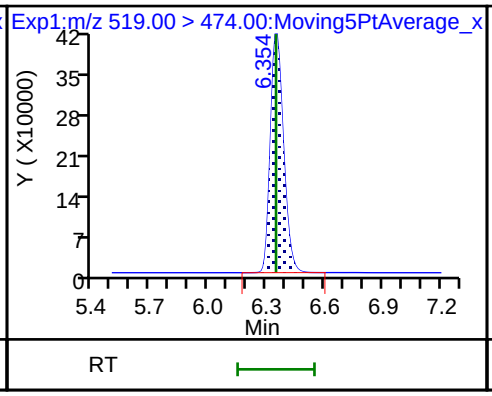
56 8:2 FTS



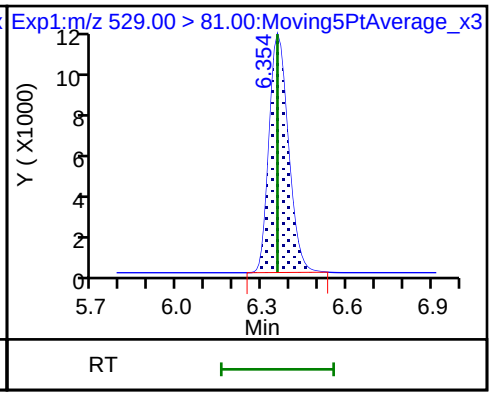
* 55 13C2 PFDA



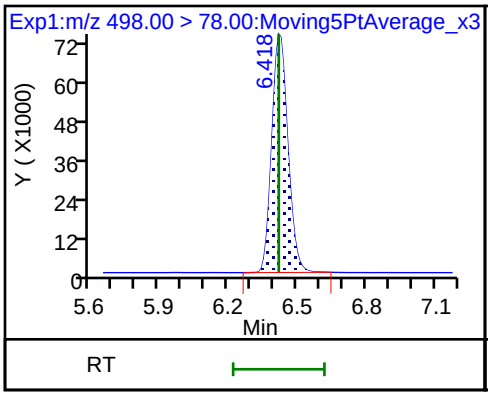
D 54 13C6 PFDA



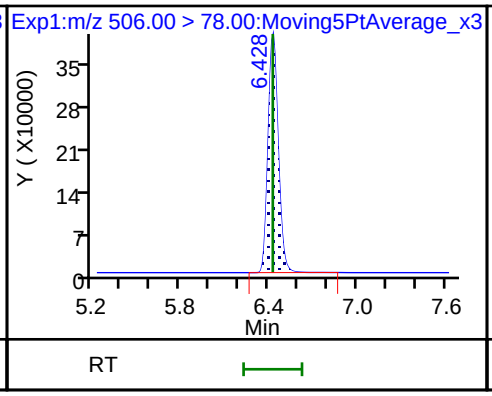
D 57 M2-8:2 FTS



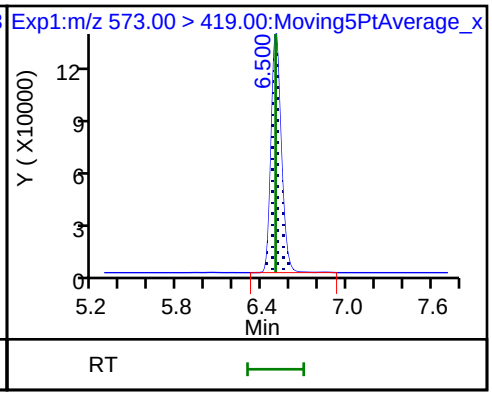
58 Perfluorooctanesulfonamide



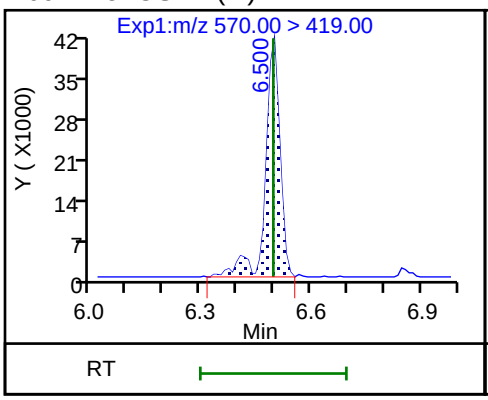
D 59 13C8 FOSA



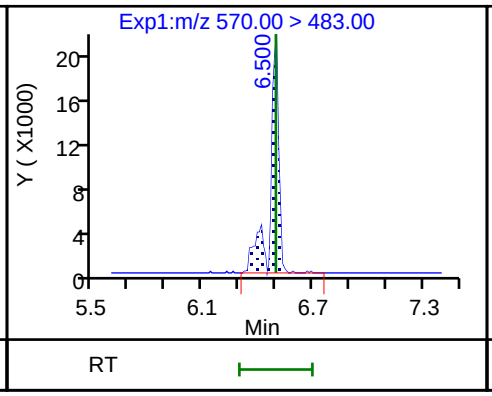
D 61 d3-NMeFOSAA



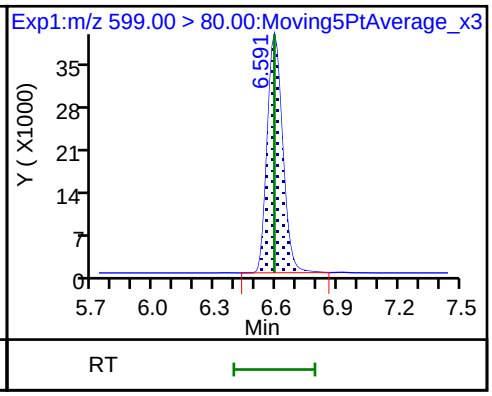
60 NMeFOSAA (M)



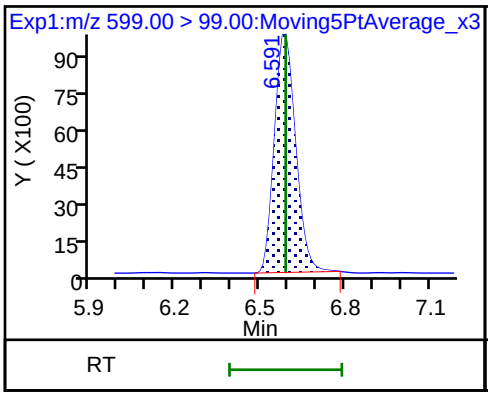
60 NMeFOSAA



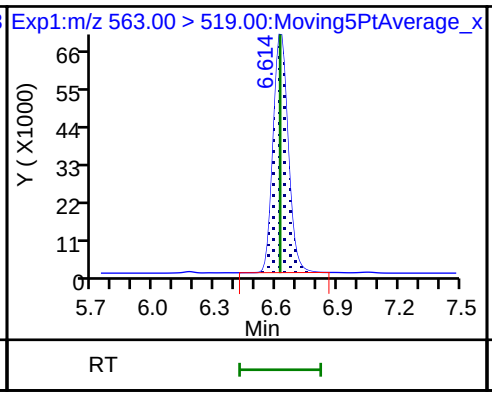
62 Perfluorodecanesulfonic acid



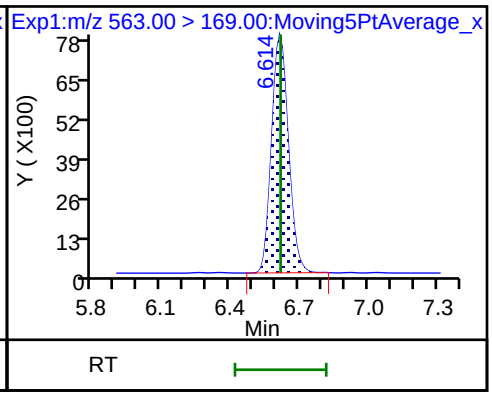
62 Perfluorodecanesulfonic acid



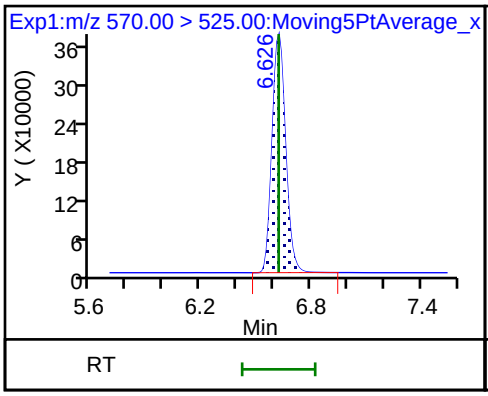
63 Perfluoroundecanoic acid



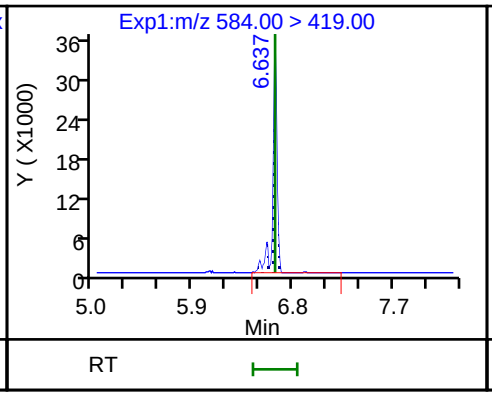
63 Perfluoroundecanoic acid



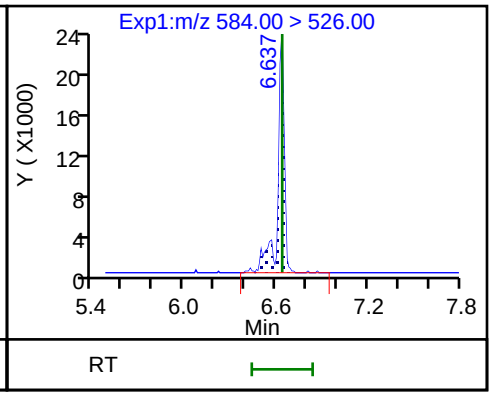
D 65 13C7 PFUnA



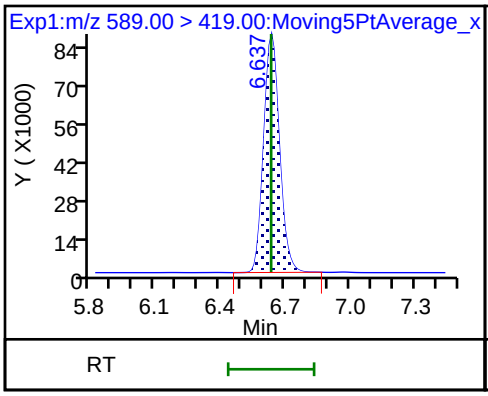
67 NEtFOSAA



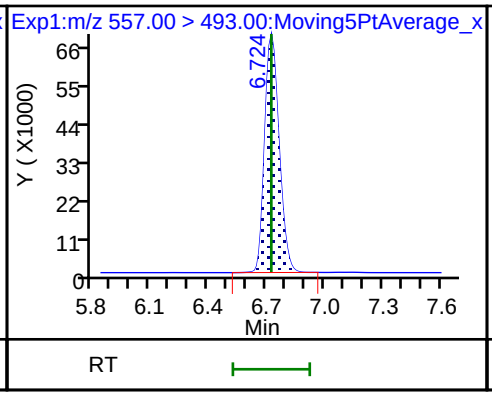
67 NEtFOSAA



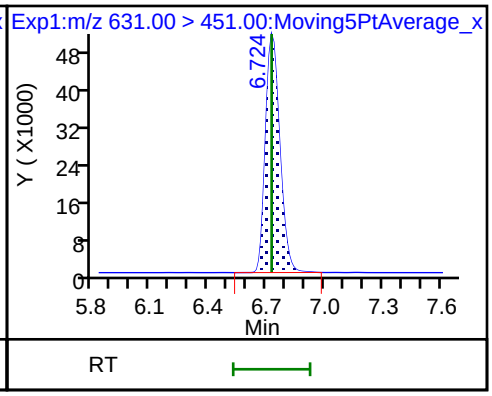
D 66 d5-NEtFOSAA



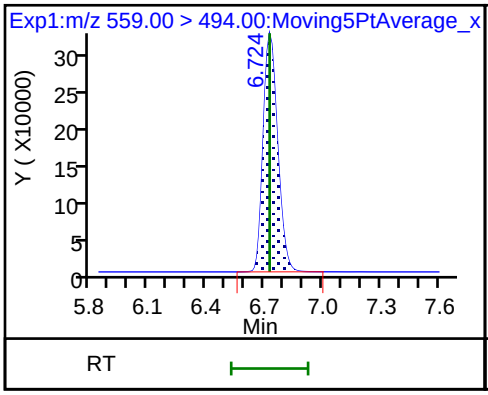
68 10:2 FTUCA



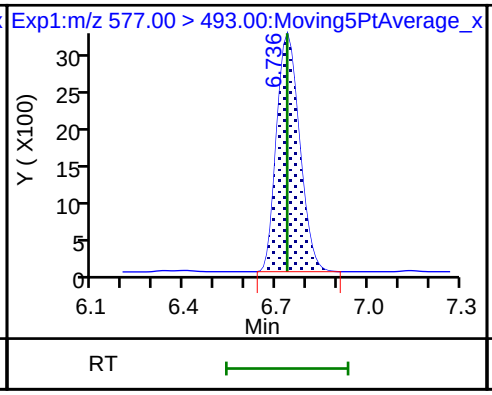
69 11ClFOS



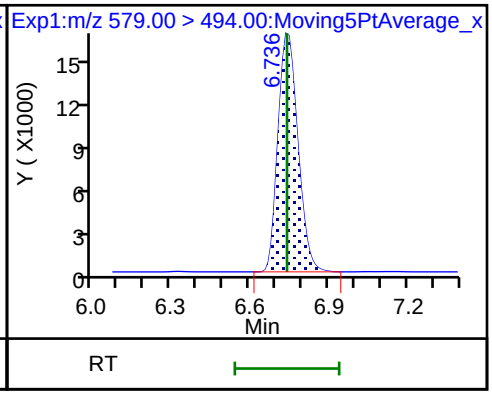
D 70 13C-10:2 FTUCA



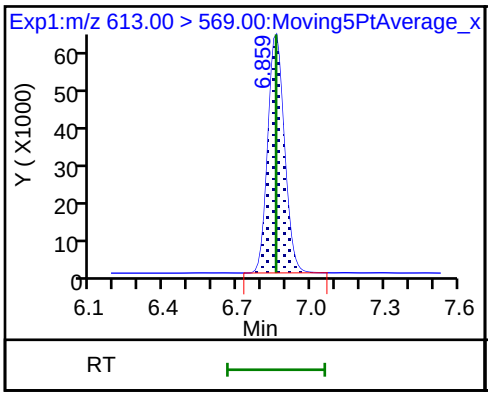
71 10:2 FTCA



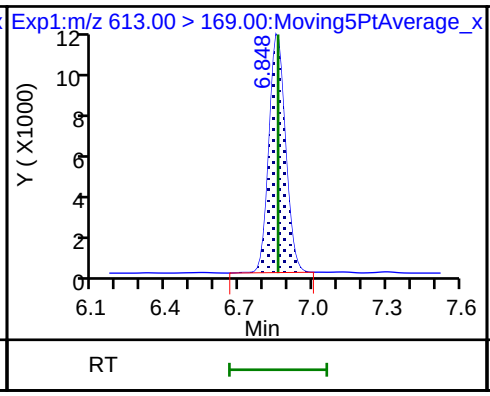
D 72 13C-10:2 FTCA



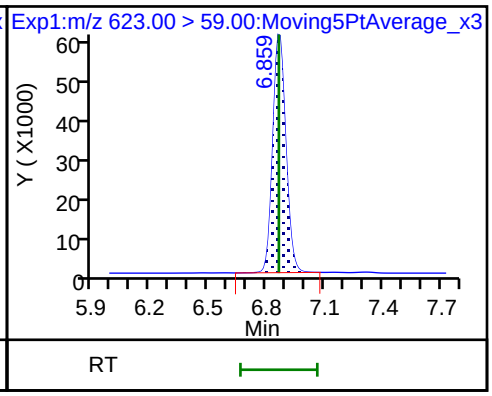
73 Perfluorododecanoic acid



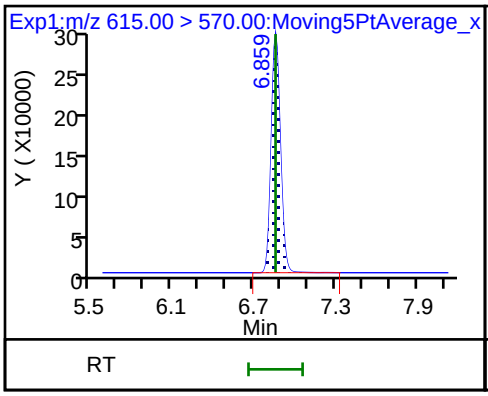
73 Perfluorododecanoic acid



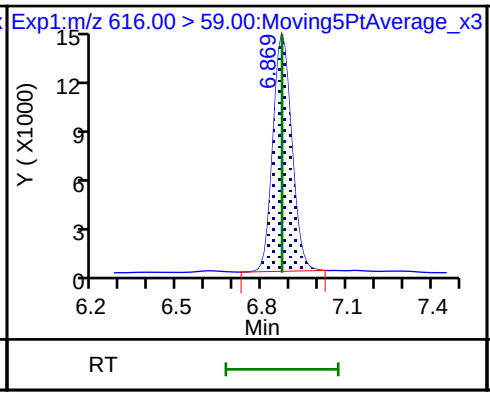
D 76 d7-N-MeFOSE-M



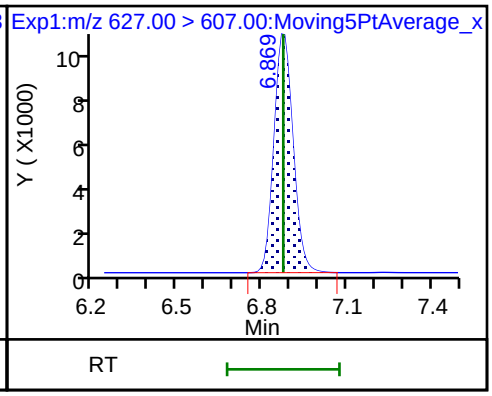
D 74 13C2-PFDoDA



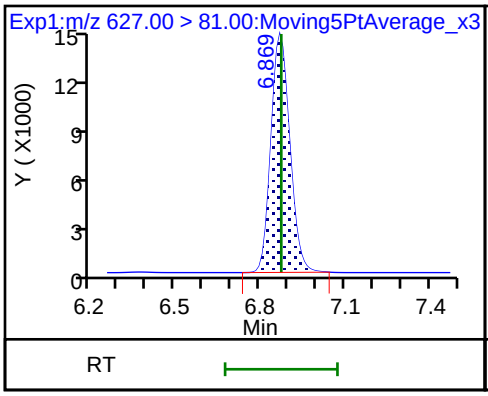
77 N-MeFOSE-M



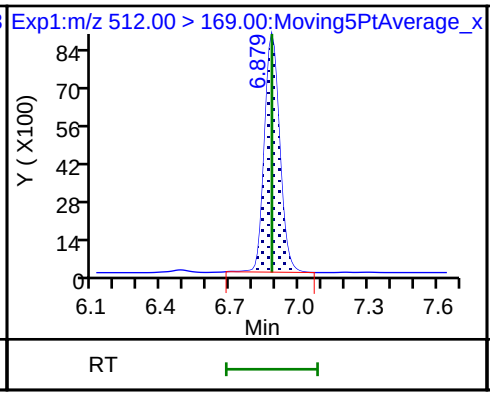
75 10:2 FTS



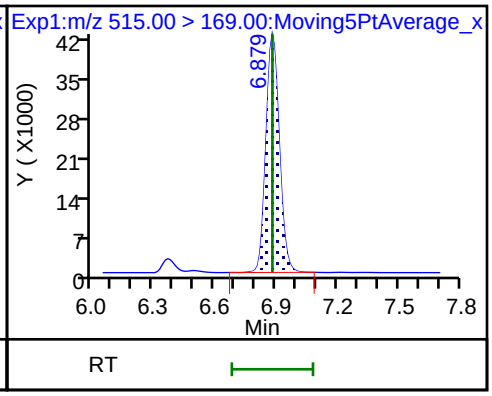
75 10:2 FTS



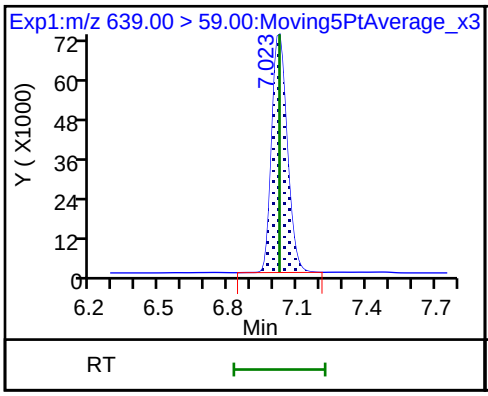
78 NMeFOSA



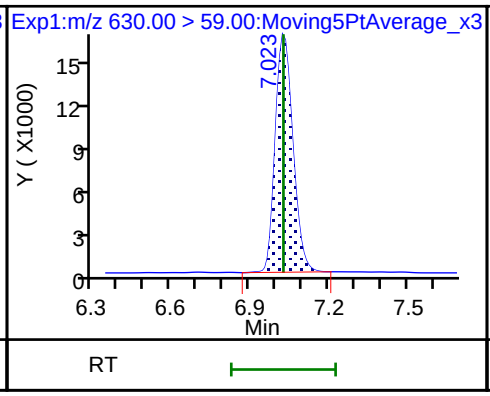
D 79 d3-NMePFOSA



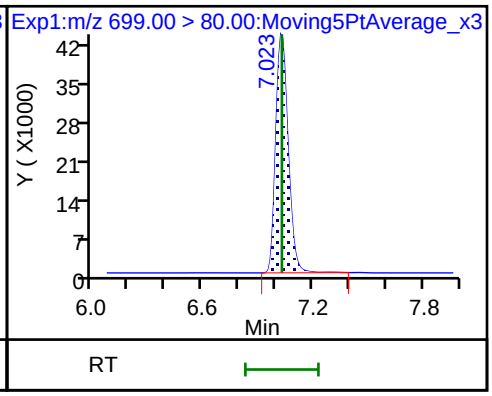
D 81 d9-N-EtFOSE-M



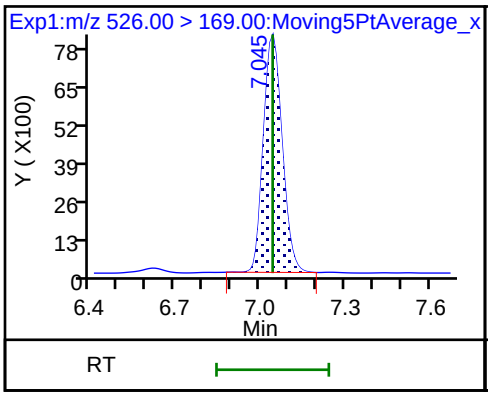
82 N-EtFOSE-M



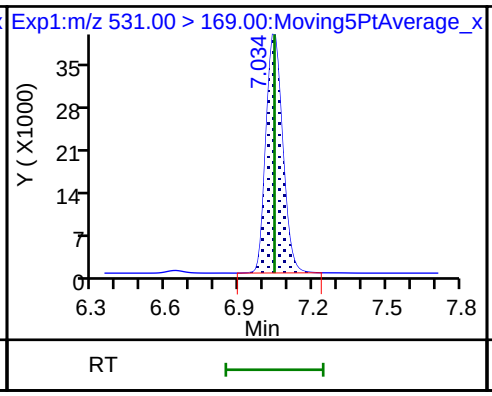
80 PFDoS



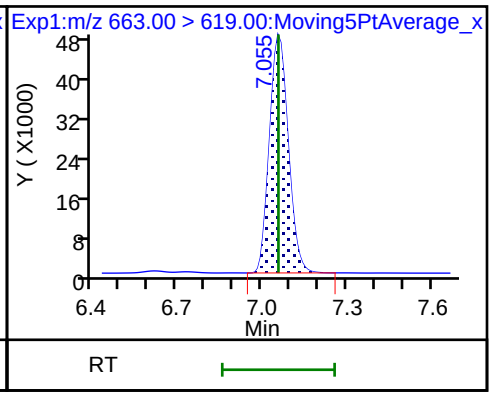
84 N-EtFOSA-M



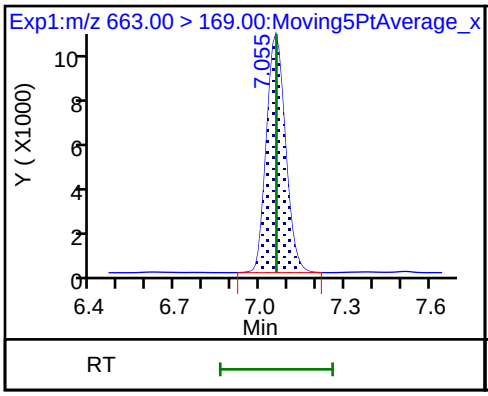
D 83 d5-NEtPFOSA



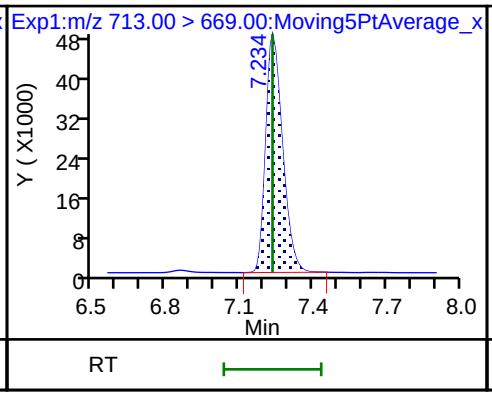
85 Perfluorotridecanoic acid



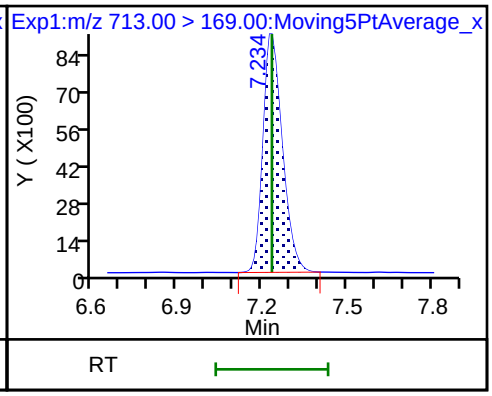
85 Perfluorotridecanoic acid



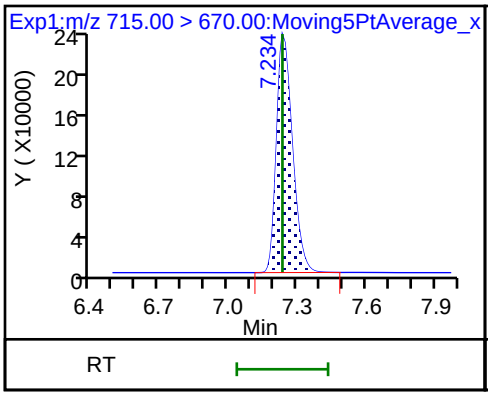
86 Perfluorotetradecanoic acid



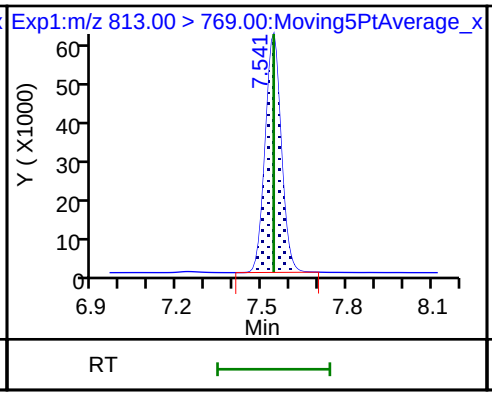
86 Perfluorotetradecanoic acid



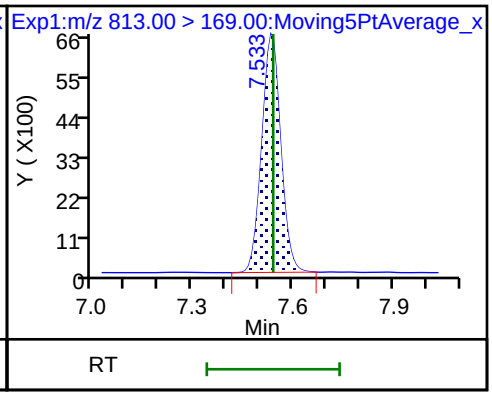
D 87 13C2 PFTeDA



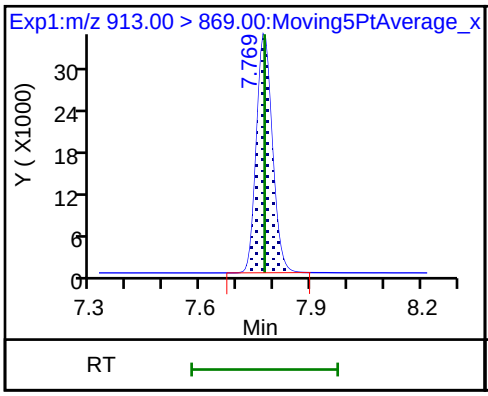
88 Perfluorohexadecanoic acid



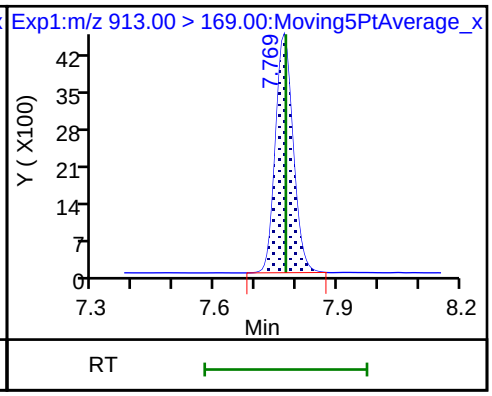
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

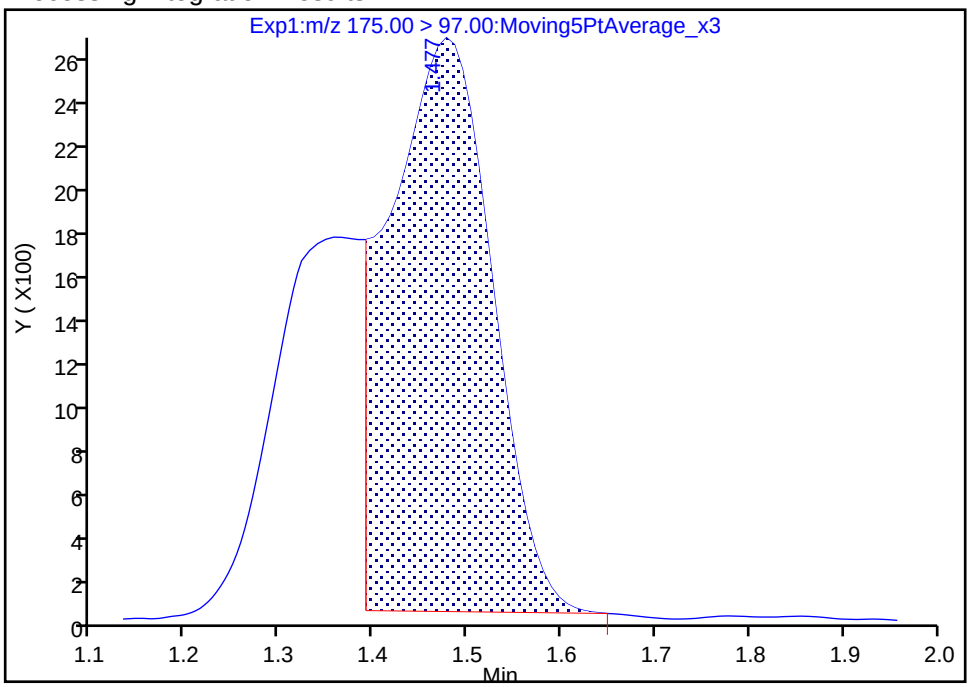
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-03.d				
Injection Date:	22-Feb-2022 15:34:15	Instrument ID:	30733		
Lims ID:	IC CAL3				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20004	Worklist Smp#:	3
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

107 MTP, CAS: 93449-21-9

Signal: 1

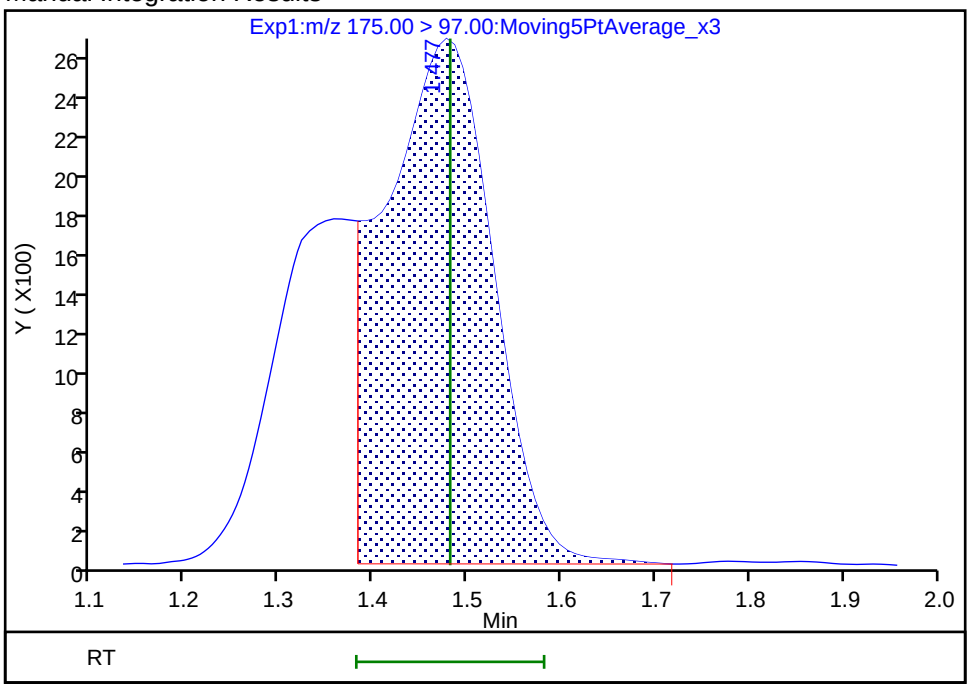
Processing Integration Results

RT: 1.48
Area: 19539
Amount: 1.997783
Amount Units: ng/ml



Manual Integration Results

RT: 1.48
Area: 20942
Amount: 2.069986
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:47:49

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

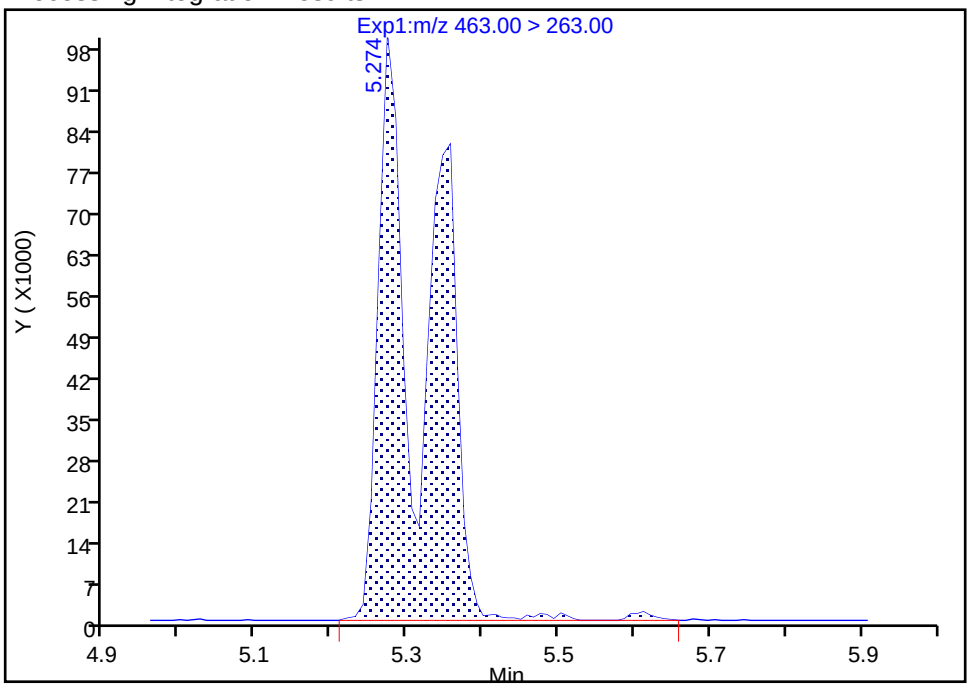
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-03.d				
Injection Date:	22-Feb-2022 15:34:15	Instrument ID:	30733		
Lims ID:	IC CAL3				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20004	Worklist Smp#:	3
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

106 Hydro-PS Acid, CAS: 749836-20-2

Signal: 1

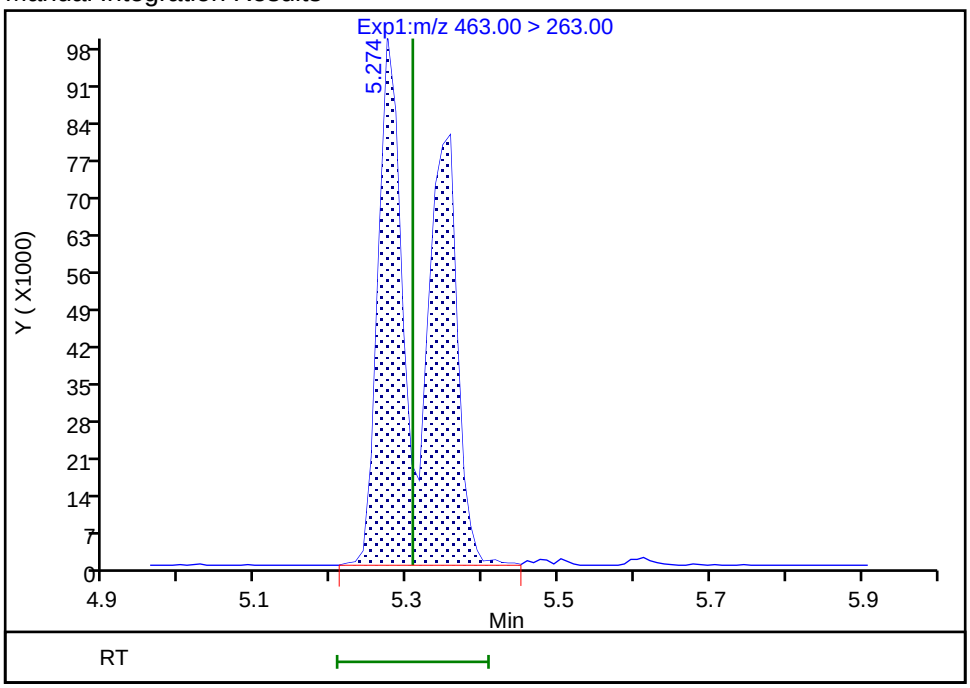
Processing Integration Results

RT: 5.27
Area: 434111
Amount: 2.124437
Amount Units: ng/ml



Manual Integration Results

RT: 5.27
Area: 428050
Amount: 2.070877
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:48:27

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

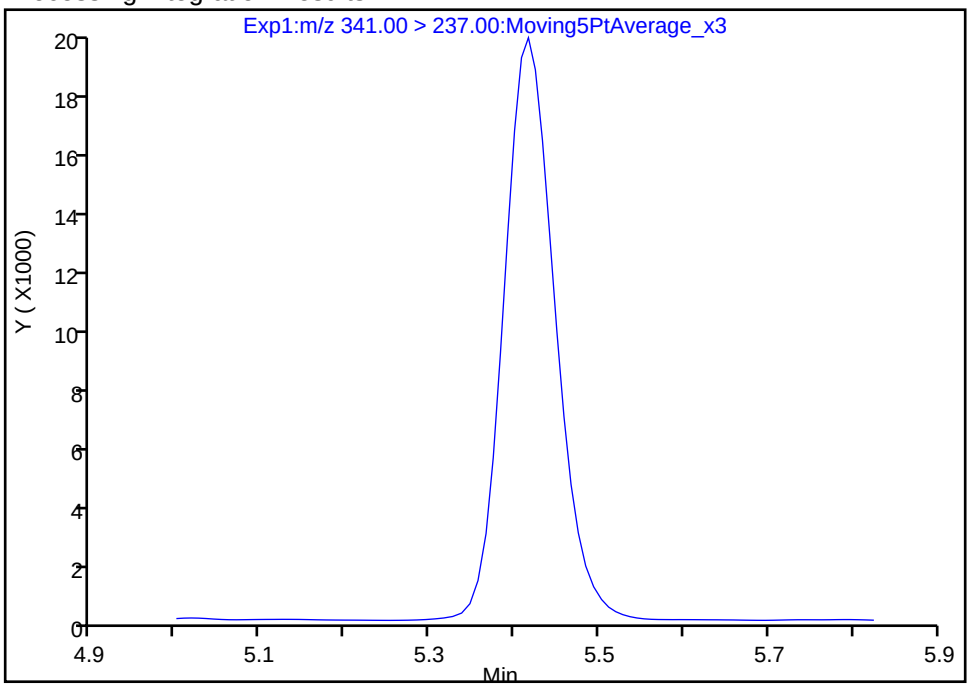
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-03.d				
Injection Date:	22-Feb-2022 15:34:15	Instrument ID:	30733		
Lims ID:	IC CAL3				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20004	Worklist Smp#:	3
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

28 5:3 FTCA, CAS: 914637-49-3

Signal: 1

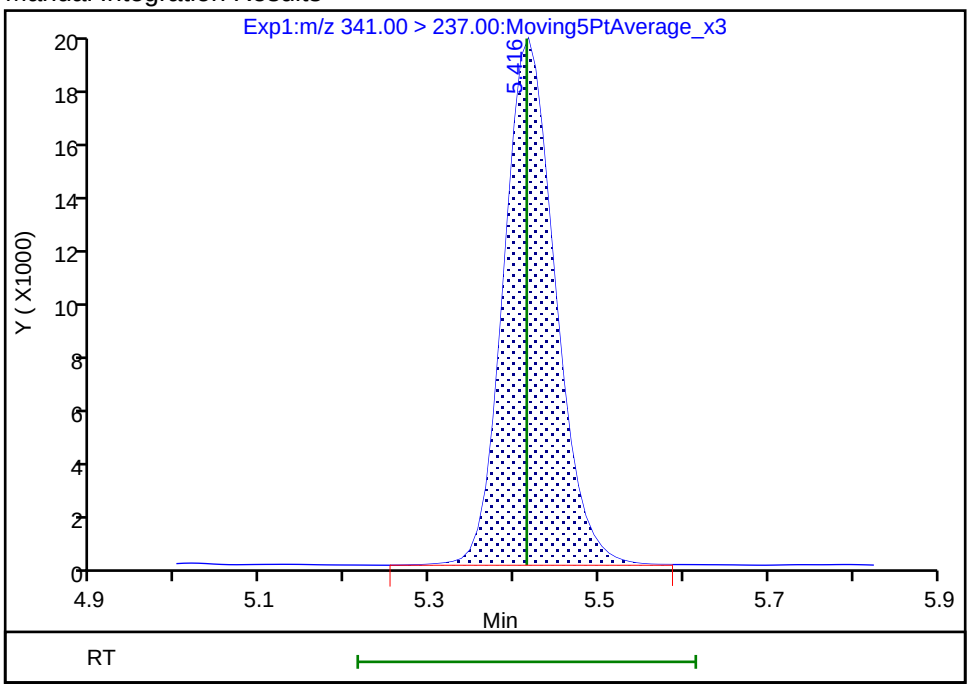
Processing Integration Results

Not Detected
Expected RT: 5.41



Manual Integration Results

RT: 5.42
Area: 83656
Amount: 2.123947
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:48:17
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

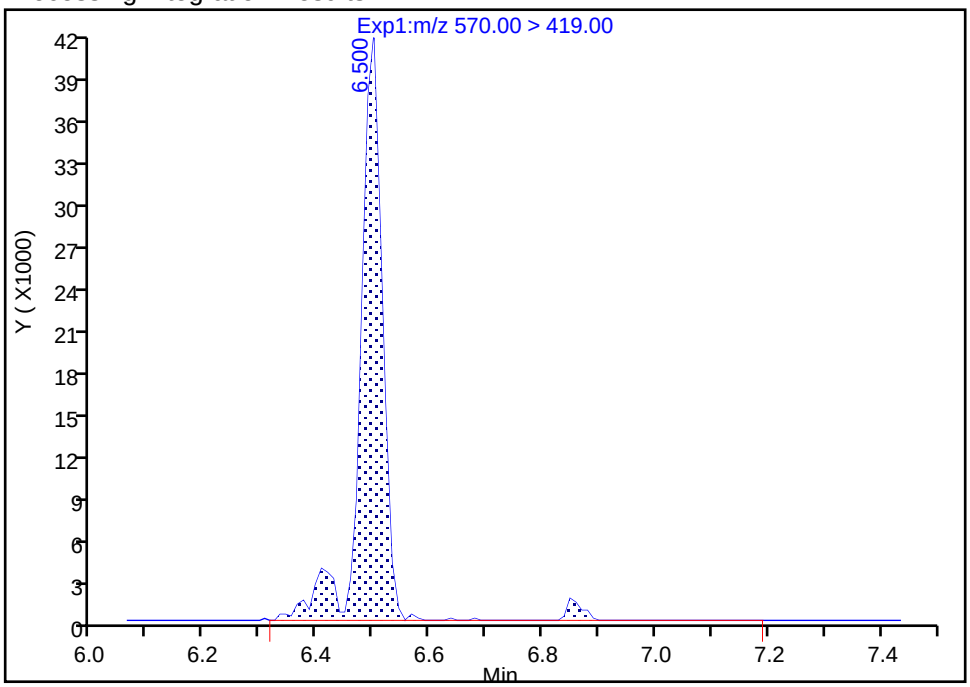
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-03.d				
Injection Date:	22-Feb-2022 15:34:15	Instrument ID:	30733		
Lims ID:	IC CAL3				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20004	Worklist Smp#:	3
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

60 NMeFOSAA, CAS: 2355-31-9

Signal: 1

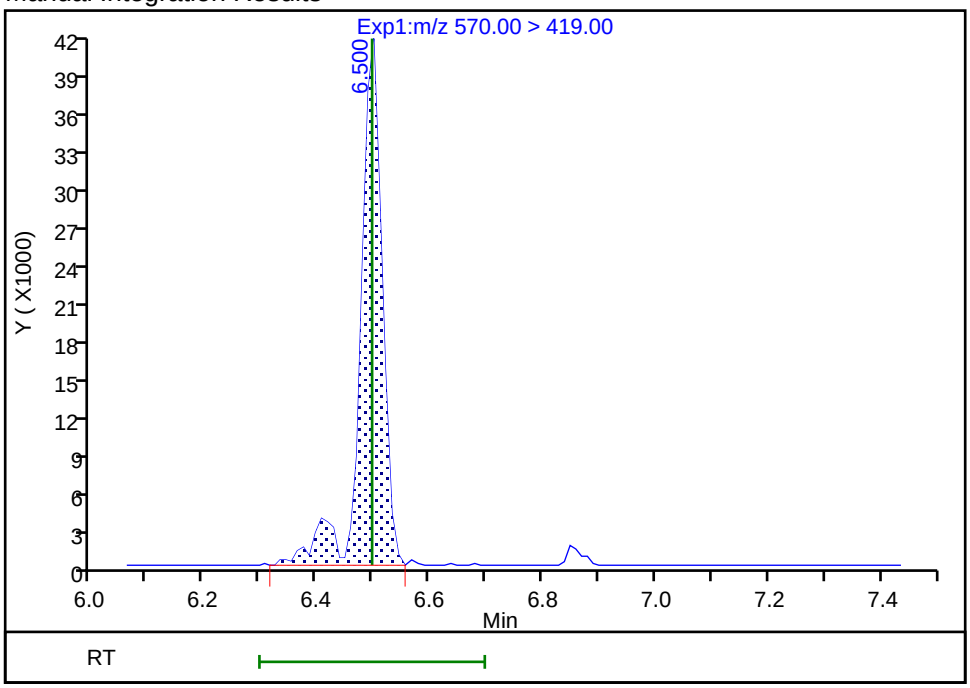
Processing Integration Results

RT: 6.50
Area: 116496
Amount: 2.108253
Amount Units: ng/ml



Manual Integration Results

RT: 6.50
Area: 113025
Amount: 2.058807
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:48:36

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-04.d
Lims ID: IC CAL4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 22-Feb-2022 15:45:21 ALS Bottle#: 20005 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL4
Misc. Info.: Plate: 1 Rack: 1 410-0050930-004
Operator ID: US19_USR_INS20260 Instrument ID: 30733
Sublist: chrom-PFAS_30733_XList_2*sub1

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 10:05:47 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1604

First Level Reviewer: fellenbauma Date: 22-Feb-2022 20:52:34
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										
175.00 > 97.00	1.484	1.481	0.003	0.373	75965	7.56		94.5	320	
1 PPF Acid										
163.00 > 119.00	1.835	1.838	-0.003	0.461	607970	7.53		94.2	5801	
96 PFMOAA										
179.00 > 85.00	2.949	2.948	0.001	0.740	364111	7.39		92.4	3489	
100 R-PSDA										
441.00 > 241.00	3.966	3.955	0.011	0.865	26558	7.69		96.2	1837	
99 R-EVE										
405.00 > 217.00	3.966	3.957	0.009	0.996	91206	7.22		90.3	4839	
105 Hydrolyzed PSDA										
439.00 > 343.00	3.983	3.972	0.011	0.869	133758	7.70		96.3	8416	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.983	3.977	0.006	1.000	1120821	7.26		90.7	19380	
D 3 13C4 PFBA										
217.00 > 172.00	3.983	3.977	0.006	1.000	1637723	9.83		98.3	91218	
* 4 13C3-PFBA										
216.00 > 172.00	3.983	3.979	0.004		748670	5.00			1883	
102 PMPA										
229.00 > 185.00	4.111	4.105	0.006	1.032	541263	7.58		94.7	10447	
5 PFPrS										
249.00 > 99.00	4.174	4.165	0.009	1.048	262990	7.00		95.5	18458	
103 NVHOS										
297.00 > 135.00	4.205	4.199	0.006	0.917	240858	7.59		94.9	16648	
6 PFECA F										
229.00 > 85.00	4.237	4.225	0.012	1.064	1138957	7.75		96.9	18982	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 PFO2HxA										
245.00 > 85.00	4.416	4.411	0.005	1.109	370052	7.46		93.3	26119	
7 Perfluoropentanoic acid										
263.00 > 219.00	4.528	4.522	0.006	0.998	1079011	7.27		90.9	26798	
9 3:3 FTCA										
241.00 > 177.00	4.537	4.525	0.012	1.000	67413	7.03		87.9	4954	
D 8 13C5 PFPeA										
268.00 > 223.00	4.537	4.529	0.008	1.139	1430612	9.94		99.4	80032	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.585	4.579	0.006	1.000	800930	6.72	Target=3.22	95.0	46416	
299.00 > 99.00	4.585	4.579	0.006	1.000	247653		3.23(1.61-4.83)	95.0	19102	
D 11 13C3 PFBS										
302.00 > 80.00	4.585	4.580	0.005	1.151	1036229	9.10		97.2	79593	
91 PEPA										
279.00 > 235.00	4.640	4.635	0.005	1.165	227699	7.57		94.6	9162	
12 PFECA A										
279.00 > 85.00	4.665	4.658	0.007	1.017	813515	7.69		96.1	50015	
13 PES										
315.00 > 135.00	4.751	4.746	0.005	1.036	2679609	7.27		102	220398	
14 PFECA B										
201.00 > 85.00	4.883	4.877	0.006	1.065	990160	7.62	Target=1.44	95.3	4314	
295.00 > 201.00	4.883	4.877	0.006	1.065	676018		1.46(0.72-2.15)	95.3	48987	
15 4:2 FTS										
327.00 > 307.00	4.913	4.907	0.006	1.000	473527	6.94	Target=1.53	92.9	34271	
327.00 > 81.00	4.913	4.907	0.006	1.000	273306		1.73(0.77-2.30)	92.9	19698	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.913	4.907	0.006	0.861	204585	9.50		102	14676	
17 Perfluorohexanoic acid										
313.00 > 269.00	4.955	4.946	0.009	1.000	1045789	7.26	Target=16.07	90.7	32097	
313.00 > 119.00	4.944	4.946	-0.002	0.998	72601		14.40(8.04-24.11)	90.7	5173	
$ 18 13C2 PFHxA										
315.00 > 270.00	4.955	4.948	0.007	0.868	1324637	NC			71600	
D 19 13C5 PFHxA										
318.00 > 273.00	4.955	4.948	0.007	0.868	1718642	10.3		103	73840	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.965	4.961	0.004	1.083	744897	7.12	Target=3.46	94.9	53977	
349.00 > 99.00	4.965	4.961	0.004	1.083	212812		3.50(1.73-5.19)	94.9	15593	
93 PFO3OA										
311.00 > 85.00	5.012	5.005	0.007	1.258	346905	7.41		92.7	26217	
21 HFPO-DA										
329.00 > 285.00	5.084	5.074	0.010	1.000	332523	6.20		77.5	19177	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.084	5.077	0.007	0.890	280487	11.4		114	22073	
106 Hydro-PS Acid										M
463.00 > 263.00	5.350	5.307	0.043	1.167	1610483	7.73		96.6	70709	M
97 Hydro-EVE Acid										
427.00 > 283.00	5.288	5.286	0.002	1.327	1521165	7.35		91.8	350432	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
94 R-PSDCA										
397.00 > 217.00	5.298	5.289	0.009	1.156	1952931	7.41		92.6	100902	
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.340	5.335	0.005	1.000	1557036	7.90	Target=3.65	98.8	68732	
363.00 > 169.00	5.340	5.335	0.005	1.000	413131		3.77(1.82-5.47)	98.8	22892	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.340	5.335	0.005	1.000	829162	7.08	Target=3.59	97.0	1515	
399.00 > 99.00	5.340	5.335	0.005	1.000	229253		3.62(1.79-5.38)	97.0	738	
D 24 13C4 PFHpA										
367.00 > 322.00	5.340	5.336	0.004	0.935	1950218	10.5		105	85826	
D 25 13C3 PFHxS										
402.00 > 80.00	5.340	5.335	0.005	0.935	1019675	9.84		104	75224	
27 DONA										
377.00 > 251.00	5.386	5.381	0.005	1.009	1759217	7.08		93.7	83418	
98 PFECA G										
379.00 > 185.00	5.402	5.399	0.003	1.356	1813251	7.64		95.5	109742	
28 5:3 FTCA										
341.00 > 237.00	5.419	5.414	0.005	1.015	291472	7.41	Target=50.84	92.7	22979	
339.00 > 295.00	5.452	5.414	0.038	1.021	6293		46.32(25.42-76.26)	92.7	180	
29 6:2 FTUCA										
357.00 > 293.00	5.444	5.438	0.006	1.000	1623840	7.29		91.1	95732	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.444	5.439	0.005	0.954	1639032	10.2		102	78702	
32 6:2 FTCA										
377.00 > 293.00	5.461	5.456	0.005	1.000	116241	7.36		92.0	6906	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.461	5.456	0.005	0.957	149681	10.1		101	11949	
95 PFO4DA										
377.00 > 85.00	5.522	5.513	0.009	1.386	404941	7.47		93.4	707	
104 PS Acid										
443.00 > 147.00	5.556	5.552	0.004	1.212	515632	7.79		97.4	41752	
90 EVE Acid										
407.00 > 263.00	5.581	5.573	0.008	1.401	1210404	7.64		95.5	71609	
33 PFECHS										
461.00 > 381.00	5.642	5.640	0.002	1.057	1298493	6.78	Target=1.94	91.7	95425	
461.00 > 99.00	5.642	5.640	0.002	1.057	651879		1.99(0.97-2.91)	91.7	48305	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.690	5.685	0.005	1.065	774260	7.08	Target=3.50	92.9	57151	
449.00 > 99.00	5.690	5.685	0.005	1.065	211654		3.66(1.75-5.24)	92.9	15707	
34 6:2 FTS										
427.00 > 407.00	5.690	5.685	0.005	1.000	260062	6.06	Target=1.31	79.9	19200	
427.00 > 81.00	5.690	5.685	0.005	1.000	195351		1.33(0.65-1.96)	79.9	14169	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.690	5.686	0.004	0.997	90469	10.2		107	6475	
$ 39 13C4 PFOA										
417.00 > 372.00	5.709	5.704	0.005	1.000	1959096	NC			145226	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 38 13C2 PFOA										
415.00 > 370.00	5.709	5.704	0.005		775251	5.00			57032	
D 37 13C8 PFOA										
421.00 > 376.00	5.709	5.704	0.005	1.000	2173443	10.6		106	120984	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.709	5.704	0.005	1.000	1145793	6.89	Target=2.48	86.2	120700	
413.00 > 169.00	5.709	5.704	0.005	1.000	476484		2.40(1.24-3.72)	86.2	1369	
101 TAF										
443.00 > 85.00	5.949	5.947	0.002	1.493	378494	7.83		97.9	17550	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00	6.029	6.022	0.007	1.000	766626	6.83	Target=4.38	92.3	1464	
499.00 > 99.00	6.020	6.022	-0.002	0.998	173120		4.43(2.19-6.57)	92.3	430	
* 42 13C4 PFOS										
503.00 > 80.00	6.029	6.023	0.006		503590	4.78			38110	
D 41 13C8 PFOS										
507.00 > 80.00	6.029	6.023	0.006	1.000	1007256	9.48		99.1	25143	
44 Perfluorononanoic acid										
463.00 > 419.00	6.047	6.041	0.006	1.000	1174091	7.25	Target=4.84	90.6	43862	
463.00 > 169.00	6.038	6.041	-0.003	0.998	236662		4.96(2.42-7.25)	90.6	17825	
D 45 13C9 PFNA										
472.00 > 427.00	6.047	6.041	0.006	1.003	1749557	9.89		98.9	78595	
46 7:3 FTCA										
441.00 > 337.00	6.152	6.144	0.008	1.127	386160	7.83		97.8	30144	
47 8:2 FTUCA										
457.00 > 393.00	6.152	6.150	0.002	0.999	1732593	7.27		90.9	103781	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.159	6.155	0.004	0.970	2235812	10.5		105	135867	
49 8:2 FTCA										
477.00 > 393.00	6.174	6.169	0.005	1.000	103771	7.88		98.5	8367	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.174	6.169	0.005	0.973	140359	9.82		98.2	11651	
51 9ClFOS										
531.00 > 351.00	6.198	6.193	0.005	1.028	1324953	6.92		93.0	82938	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.329	6.321	0.008	1.050	784016	7.45	Target=4.28	97.0	43610	
549.00 > 99.00	6.320	6.321	-0.001	1.048	187347		4.18(2.14-6.42)	97.0	13999	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.348	6.344	0.004	1.000	1374914	7.10	Target=10.44	88.8	59444	
513.00 > 169.00	6.348	6.344	0.004	1.000	128400		10.71(5.22-15.66)	88.8	9294	
* 55 13C2 PFDA										
515.00 > 470.00	6.348	6.346	0.002		967440	5.00			68573	
56 8:2 FTS										
527.00 > 507.00	6.348	6.348	0.0	0.998	288853	7.73	Target=1.54	101	20266	
527.00 > 81.00	6.348	6.348	0.0	0.998	186121		1.55(0.77-2.31)	101	13433	
D 54 13C6 PFDA										
519.00 > 474.00	6.348	6.348	0.0	1.000	1977943	10.3		103	105120	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 57 M2-8:2 FTS										
529.00 > 81.00	6.358	6.354	0.004	1.002	46298	8.82		92.0	3272	
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.422	6.419	0.003	0.998	1421261	7.51		93.9	73477	
D 59 13C8 FOSA										
506.00 > 78.00	6.432	6.425	0.007	1.013	1882885	10.3		103	78937	
60 NMeFOSAA										
570.00 > 419.00	6.504	6.497	0.007	1.001	439059	8.04	Target=1.64	101	1088	
570.00 > 483.00	6.494	6.497	-0.003	1.000	238025		1.84(0.82-2.46)	101	528	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.494	6.494	0.0	1.023	662084	10.2		102	26762	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.594	6.590	0.004	1.094	760397	6.96	Target=4.07	90.2	36969	
599.00 > 99.00	6.594	6.590	0.004	1.094	203301		3.74(2.03-6.10)	90.2	13041	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.629	6.618	0.011	1.000	1230937	7.45	Target=8.63	93.2	30099	
563.00 > 169.00	6.618	6.618	0.0	0.998	143149		8.60(4.31-12.94)	93.2	9459	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.629	6.623	0.006	1.161	1604799	NC			80249	
D 65 13C7 PFUnA										
570.00 > 525.00	6.629	6.623	0.006	1.044	1870688	10.0		100.0	74033	
67 NEtFOSAA										
584.00 > 419.00	6.641	6.638	0.003	1.000	316551	7.74	Target=1.31	96.8	283	
584.00 > 526.00	6.641	6.638	0.003	1.000	219590		1.44(0.66-1.97)	96.8	606	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.641	6.635	0.006	1.046	458557	10.1		101	30560	
68 10:2 FTUCA										
557.00 > 493.00	6.728	6.723	0.005	1.000	1280460	7.36		92.0	61999	
69 11ClFOS										
631.00 > 451.00	6.728	6.725	0.003	1.116	1014714	7.23		97.1	49329	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.728	6.725	0.003	1.060	1701766	10.6		106	108585	
71 10:2 FTCA										
577.00 > 493.00	6.740	6.735	0.005	0.998	65626	8.82		110	4197	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.752	6.741	0.011	1.064	83365	10.4		104	5296	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.873	6.863	0.010	1.083	285988	9.91		99.1	10361	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.863	6.858	0.005	1.081	1474572	10.6		106	80332	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.863	6.857	0.006	1.000	1105686	7.37	Target=5.13	92.1	47927	
613.00 > 169.00	6.852	6.857	-0.005	0.999	216070		5.12(2.56-7.69)	92.1	15362	
77 N-MeFOSE-M										
616.00 > 59.00	6.873	6.870	0.003	1.000	229552	7.51		93.9	12380	

Report Date: 23-Feb-2022 10:05:49 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-04.d
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
75 10:2 FTS										
627.00 > 607.00	6.883	6.874	0.009	1.083	195307	7.89	Target=0.83	102	14228	
627.00 > 81.00	6.873	6.874	-0.001	1.081	252025		0.77(0.42-1.25)	102	18313	
78 NMeFOSA										
512.00 > 169.00	6.883	6.880	0.003	1.000	147204	6.96		87.0	10608	
D 79 d3-NMePFOSA										
515.00 > 169.00	6.883	6.880	0.003	1.084	188356	10.1		101	4603	
82 N-EtFOSE-M										
630.00 > 59.00	7.037	7.027	0.010	1.002	255867	7.87		98.4	13691	
80 PFDoS										
699.00 > 80.00	7.037	7.030	0.007	1.167	687272	6.82		88.1	36744	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.027	7.022	0.005	1.107	312398	9.48		94.8	13413	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.048	7.042	0.006	1.110	175731	9.93		99.3	9405	
84 N-EtFOSA-M										
526.00 > 169.00	7.048	7.044	0.004	1.000	139522	7.50		93.7	7508	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.069	7.057	0.012	1.030	807410	7.33	Target=4.34	91.7	28888	
663.00 > 169.00	7.058	7.057	0.001	1.029	181146		4.46(2.17-6.51)	91.7	13114	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.237	7.234	0.003	1.000	827431	7.94	Target=5.08	99.2	28875	
713.00 > 169.00	7.237	7.234	0.003	1.000	159016		5.20(2.54-7.61)	99.2	11261	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.237	7.235	0.002	1.140	1135827	9.69		96.9	58340	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.543	7.540	0.003	1.042	920706	7.90	Target=9.01	98.7	39710	
813.00 > 169.00	7.543	7.540	0.003	1.042	99733		9.23(4.50-13.51)	98.7	8608	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.777	7.773	0.004	1.075	368427	7.59	Target=7.79	94.9	30766	
913.00 > 169.00	7.777	7.773	0.004	1.075	48937		7.53(3.89-11.68)	94.9	5432	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD4_00013 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 10:05:49 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-04.d

Injection Date: 22-Feb-2022 15:45:21 Instrument ID: 30733

Lims ID: IC CAL4

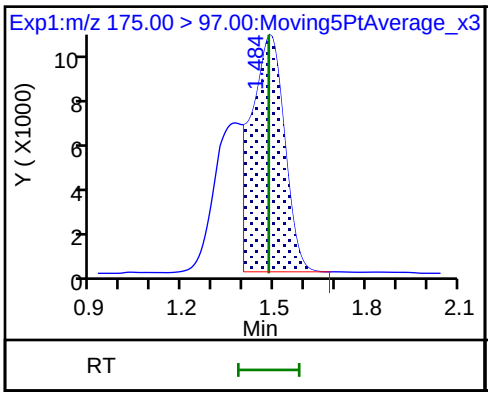
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20005 Worklist Smp#: 4

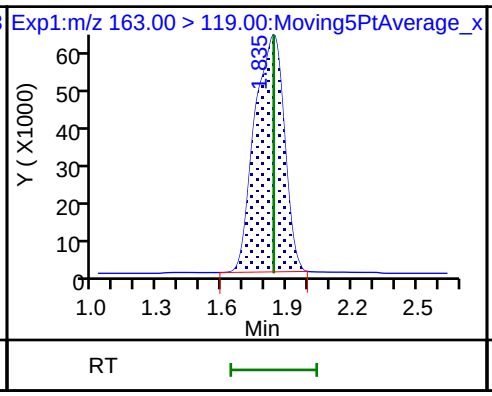
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

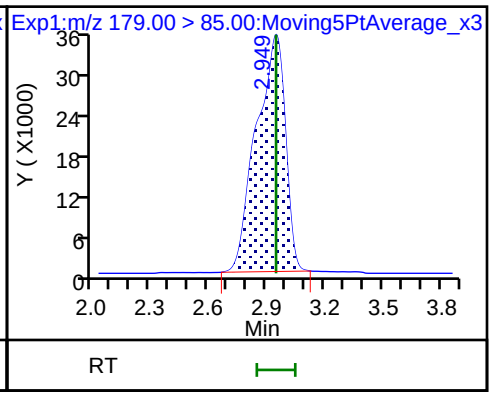
107 MTP



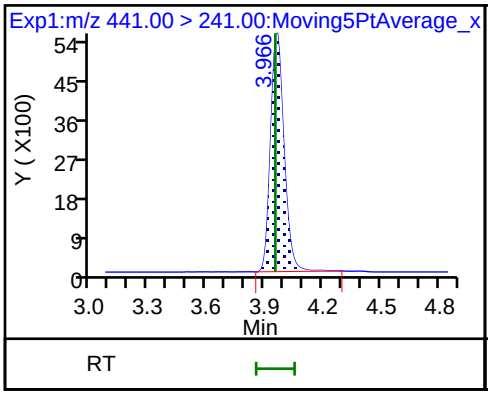
1 PPF Acid



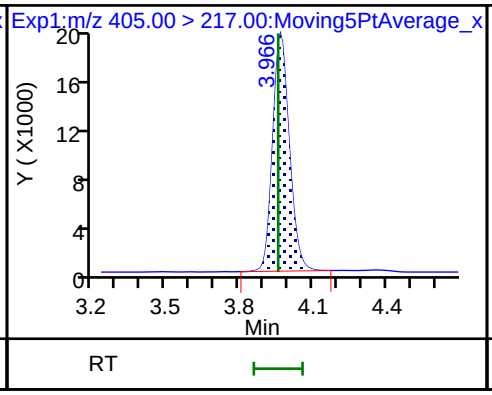
96 PFMOAA



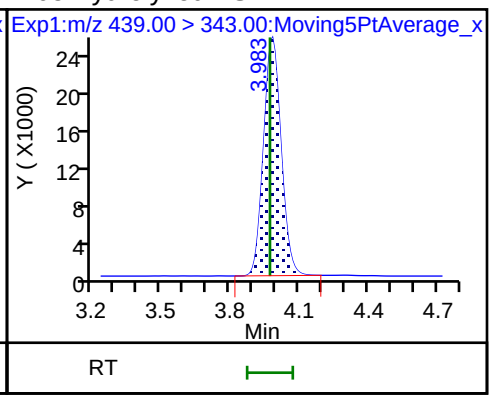
100 R-PSDA



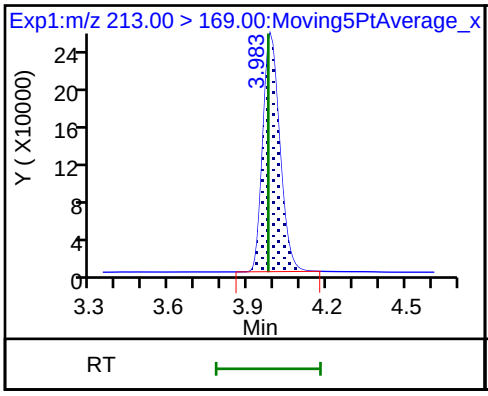
99 R-EVE



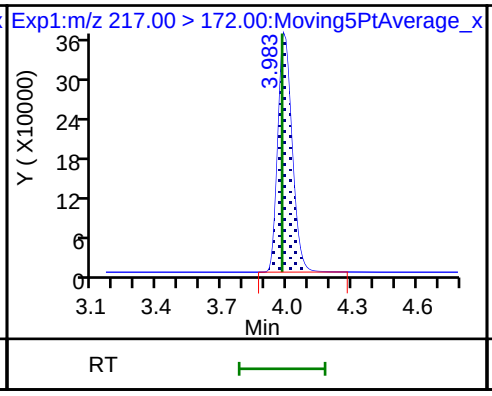
105 Hydrolyzed PSDA



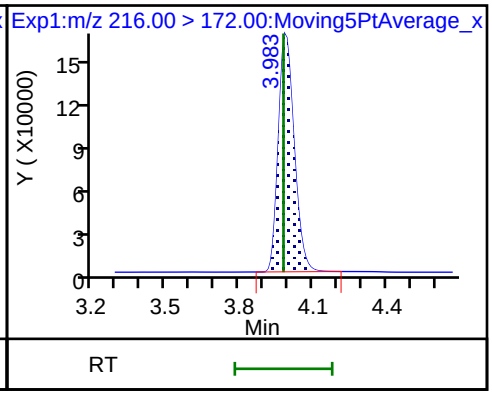
2 Perfluorobutanoic acid



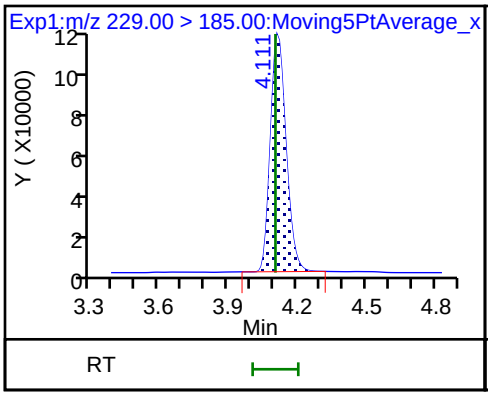
D 3 13C4 PFBA



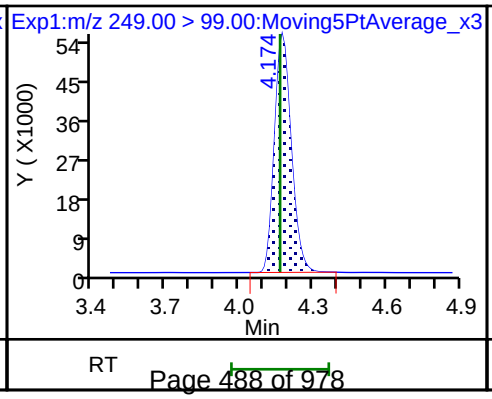
* 4 13C3-PFBA



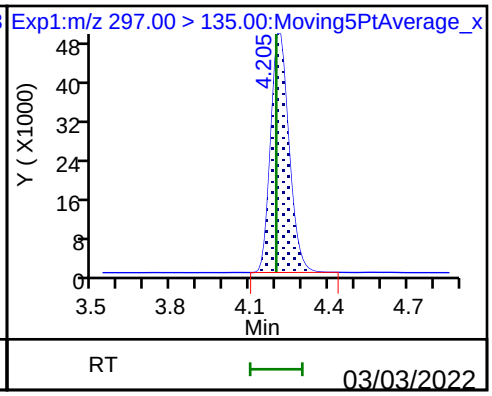
102 PMPA



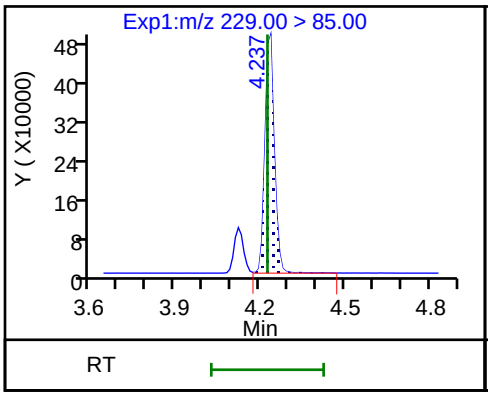
5 PFPrS



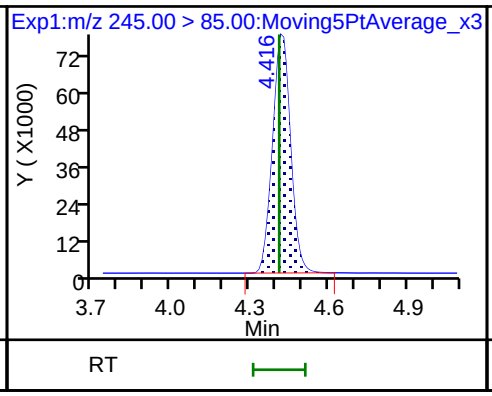
103 NVHOS



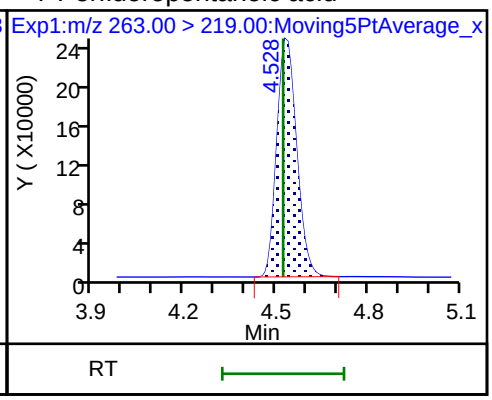
6 PFECA F



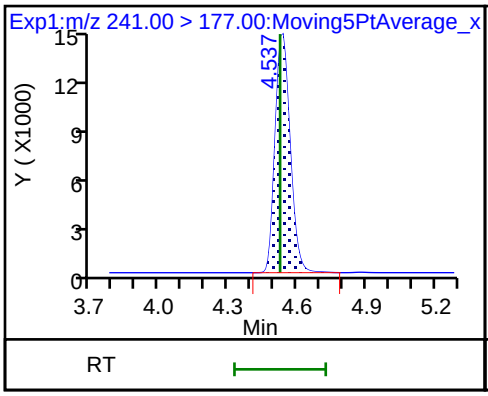
92 PFO2HxA



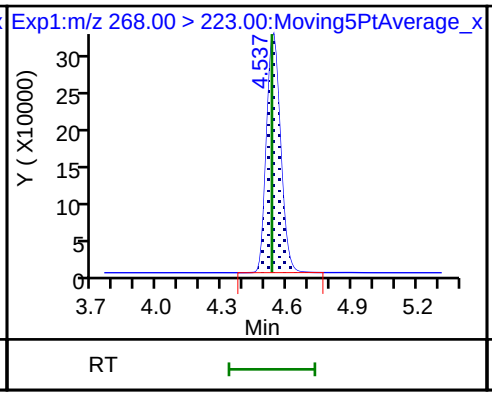
7 Perfluoropentanoic acid



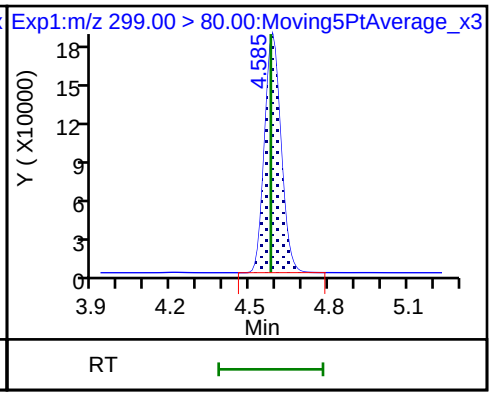
9 3:3 FTCA



D 8 13C5 PFPeA



10 Perfluorobutanesulfonic acid



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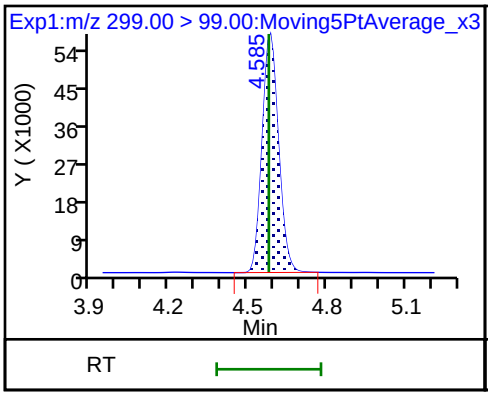
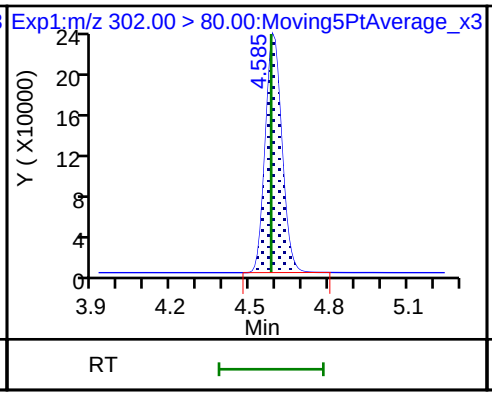
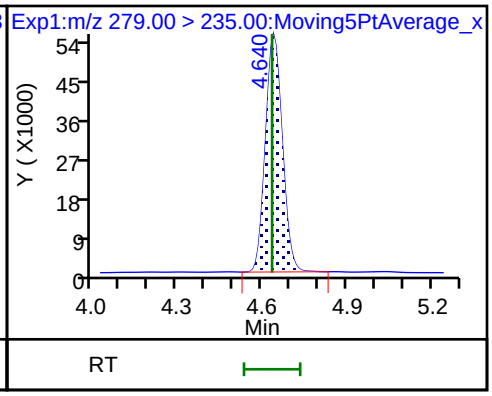


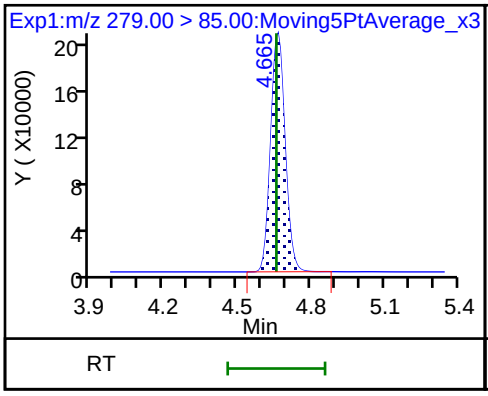
D 11 13C3 PFBS



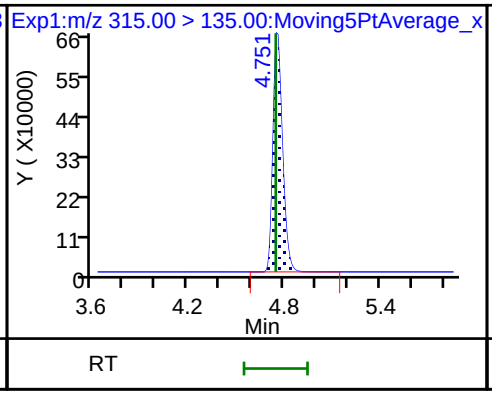
91 PEPA



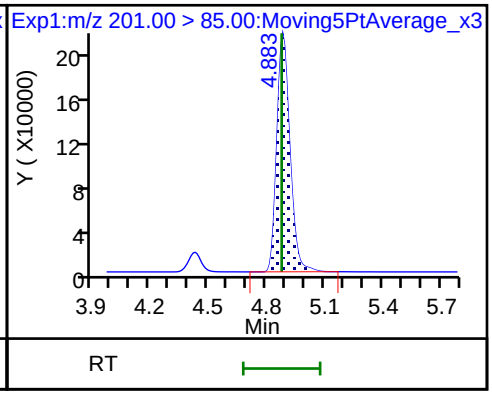
12 PFECA A



13 PES



14 PFECA B



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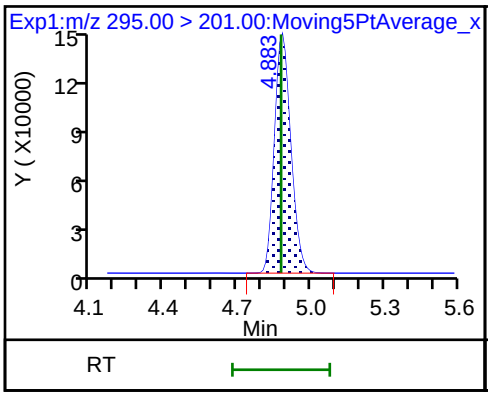
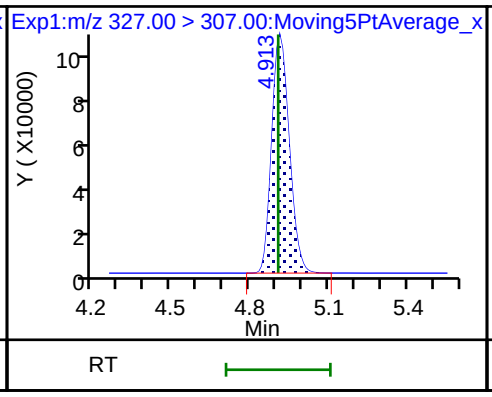


15 4:2 FTS



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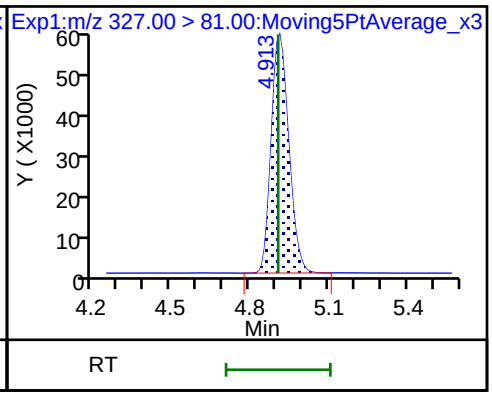
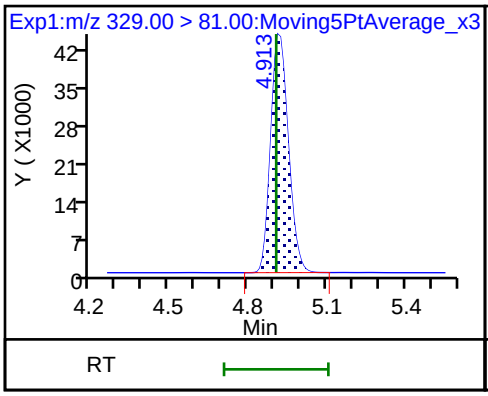
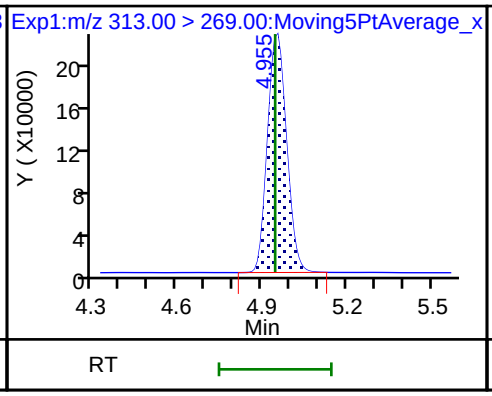


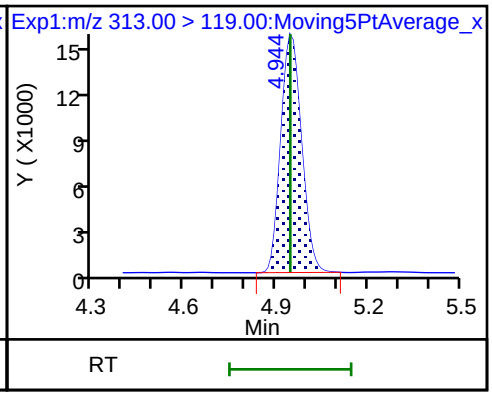
D 16 M2-4:2 FTS



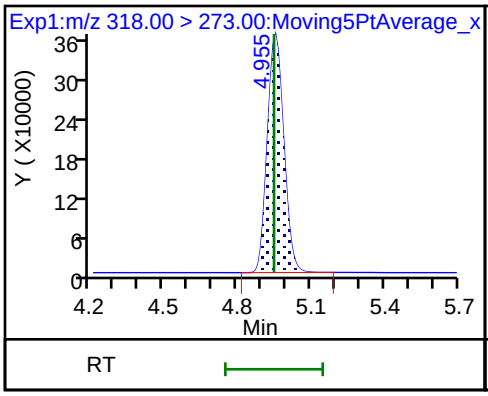
17 Perfluorohexanoic acid



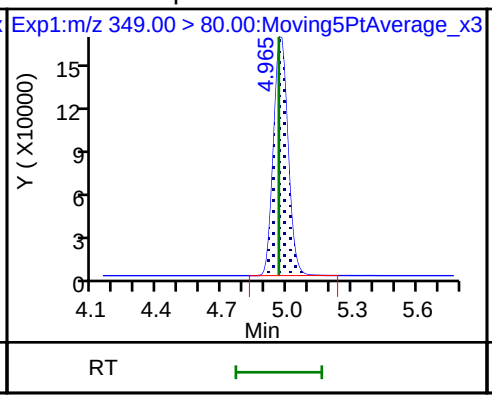
17 Perfluorohexanoic acid



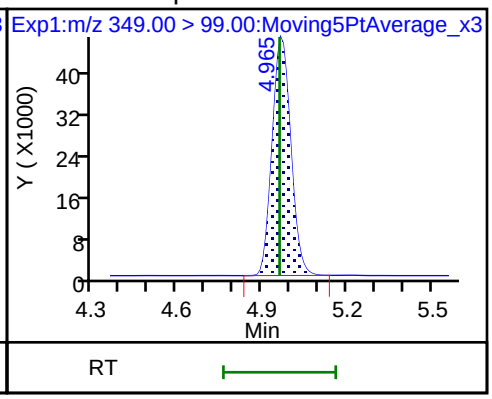
D 19 13C5 PFHxA



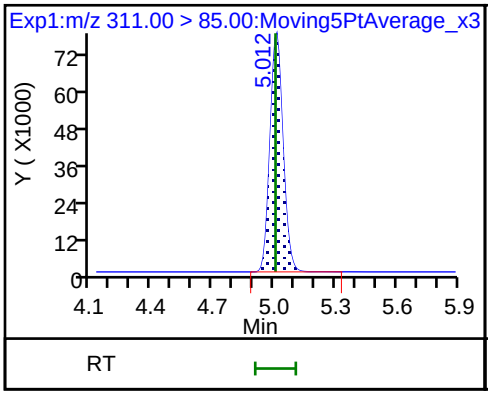
20 Perfluoropentanesulfonic acid



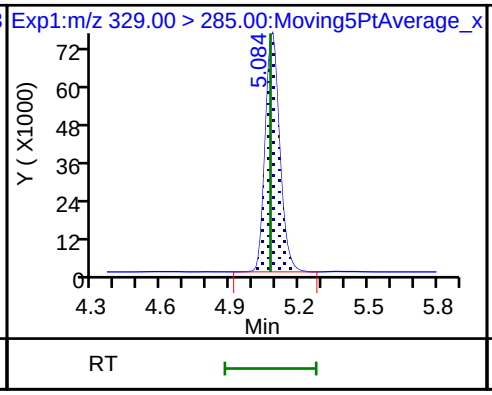
20 Perfluoropentanesulfonic acid



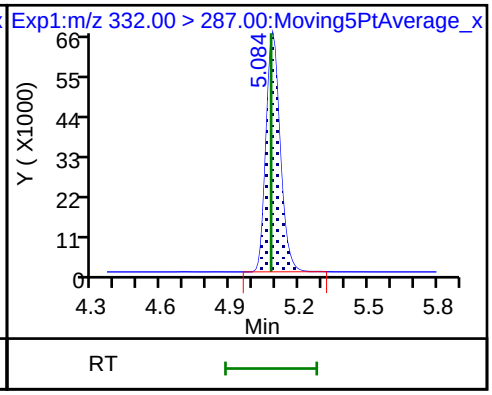
93 PFO3OA



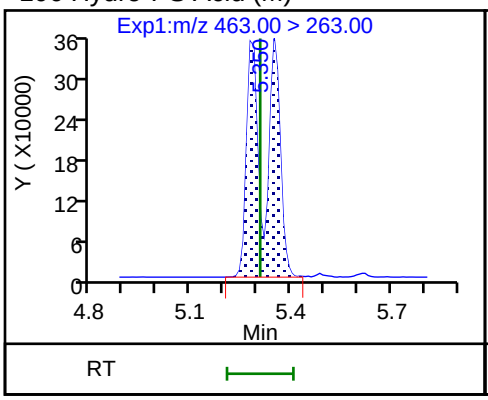
21 HFPO-DA



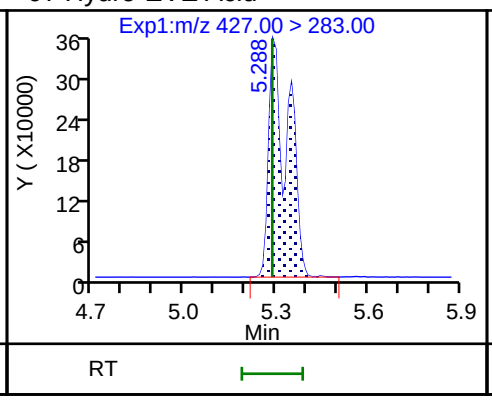
D 22 13C3 HFPO-DA



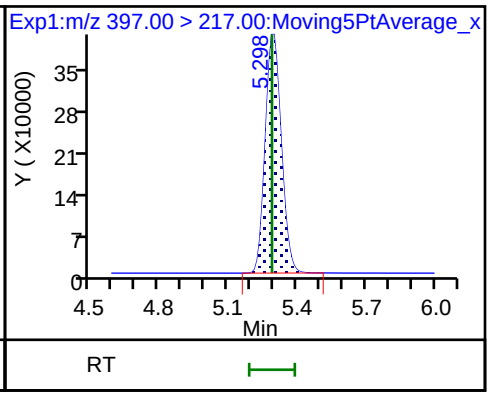
106 Hydro-PS Acid (M)



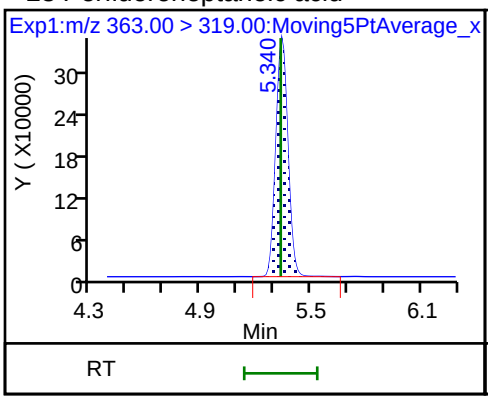
97 Hydro-EVE Acid



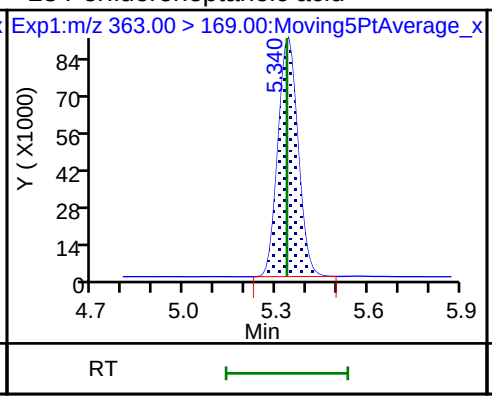
94 R-PSDCA



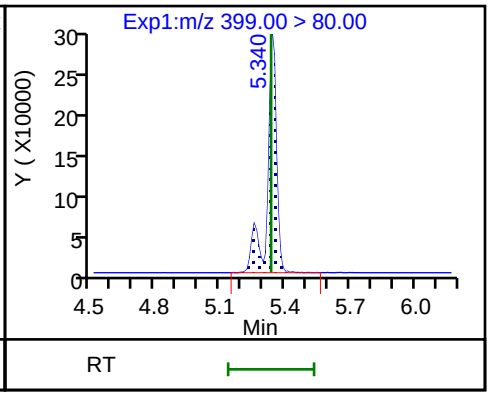
23 Perfluoroheptanoic acid



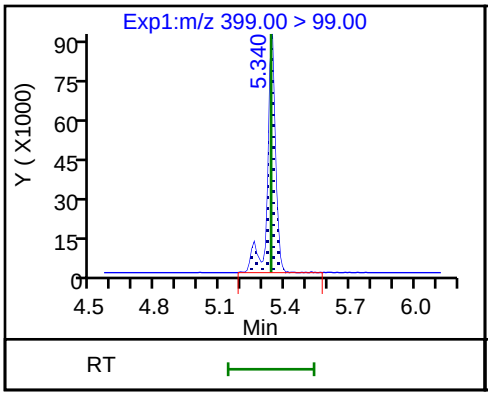
23 Perfluoroheptanoic acid



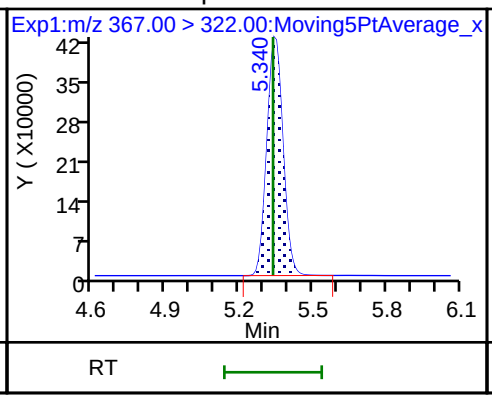
26 Perfluorohexanesulfonic acid



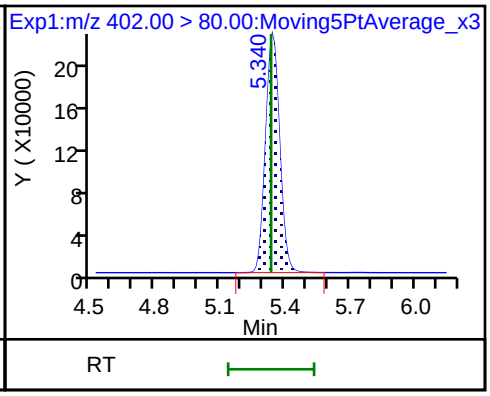
26 Perfluorohexanesulfonic acid



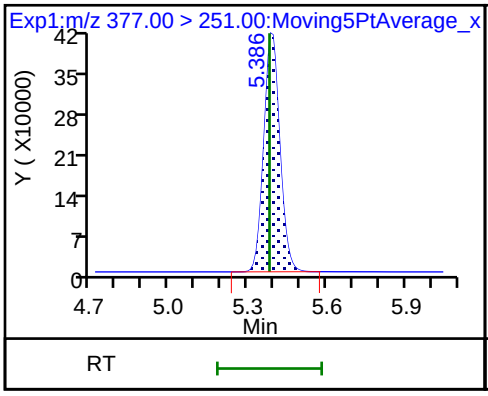
D 24 13C4 PFHpA



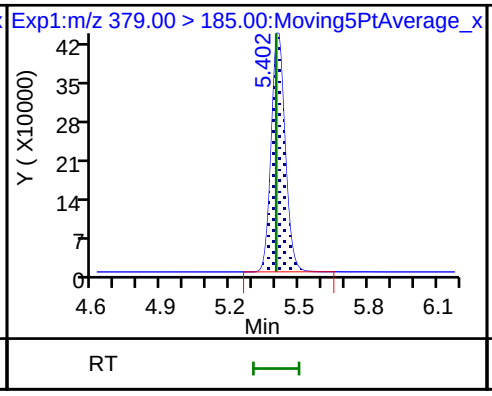
D 25 13C3 PFHxS



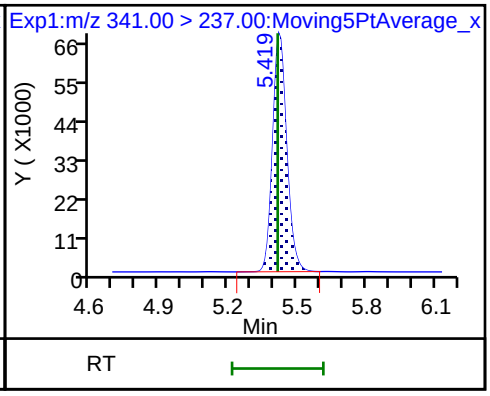
27 DONA



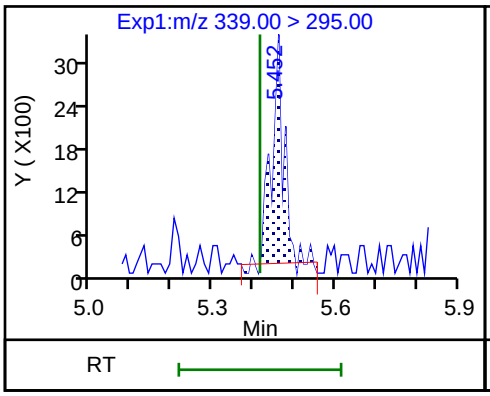
98 PFECA G



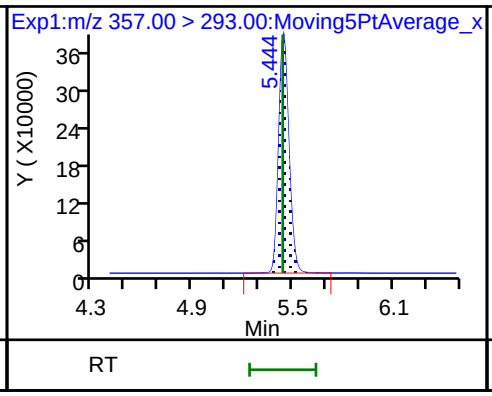
28 5:3 FTCA



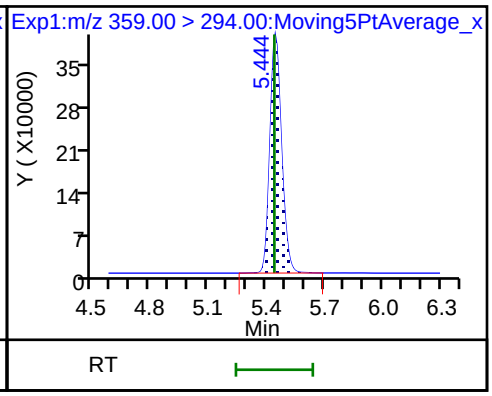
28 5:3 FTCA



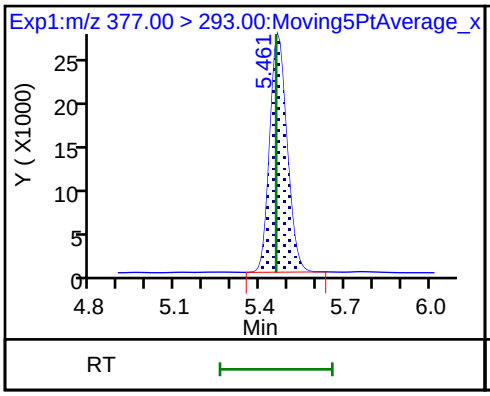
29 6:2 FTUCA



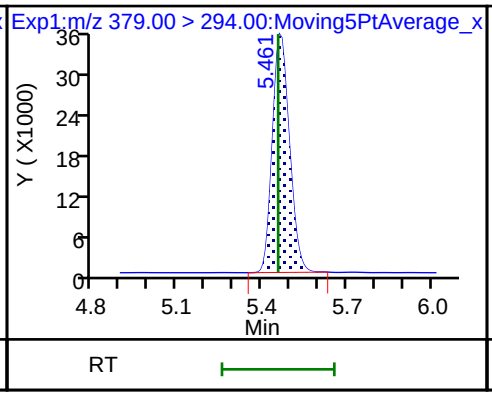
D 30 13C-6:2 FTUCA



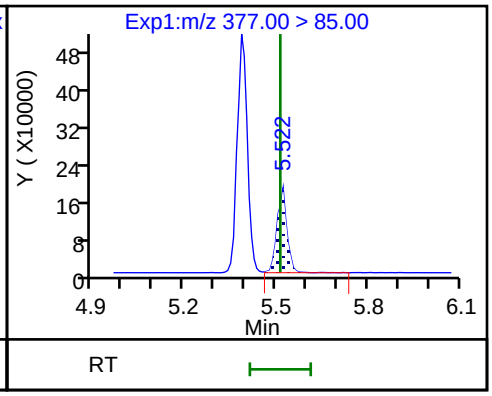
32 6:2 FTCA



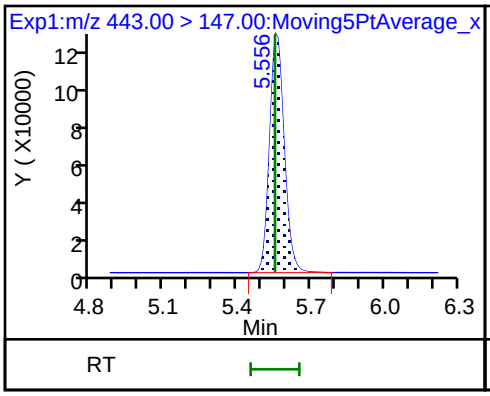
D 31 13C-6:2 FTCA



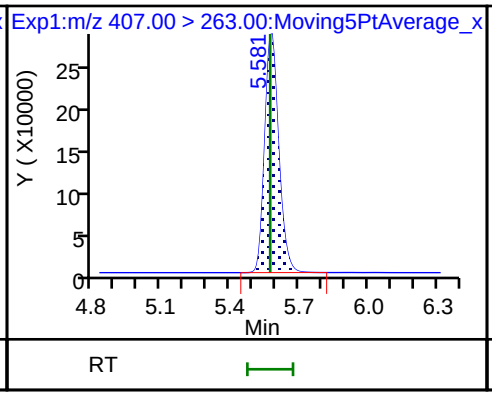
95 PFO4DA



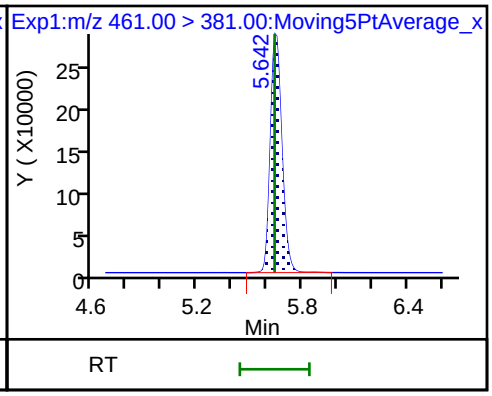
104 PS Acid



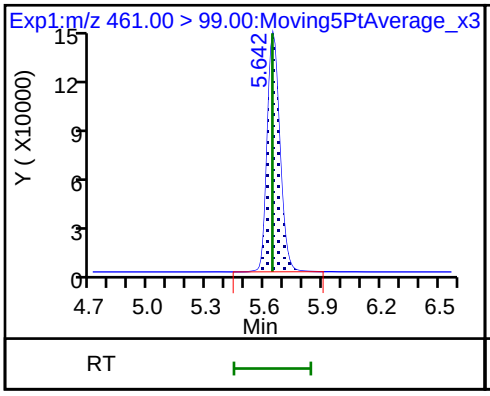
90 EVE Acid



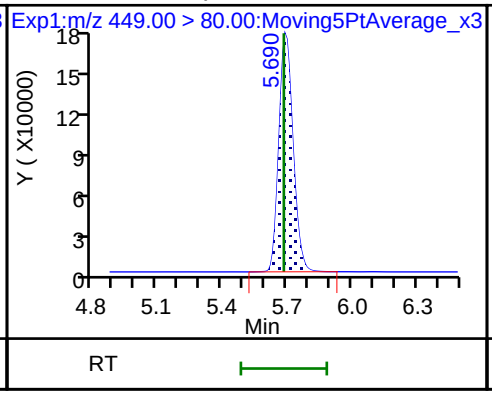
33 PFECHS



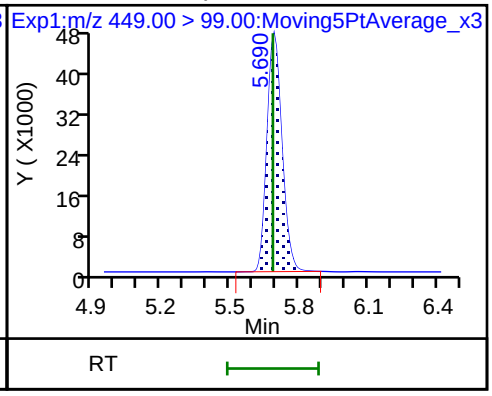
33 PFECHS



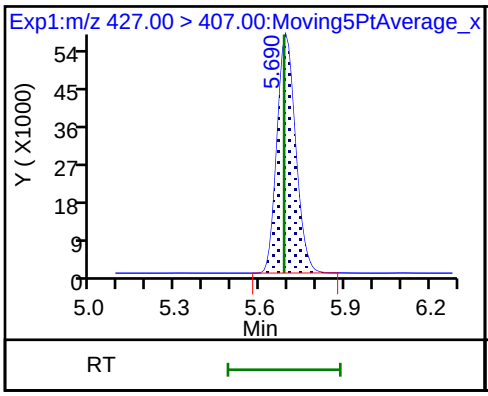
36 Perfluoroheptanesulfonic acid



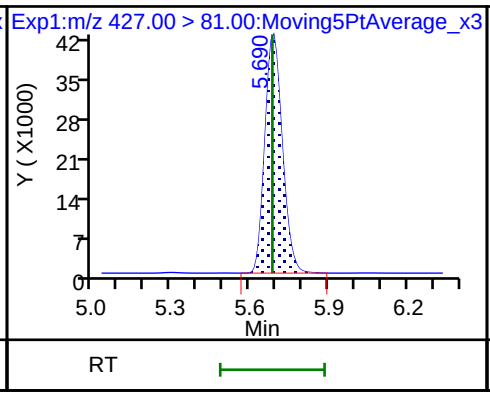
36 Perfluoroheptanesulfonic acid



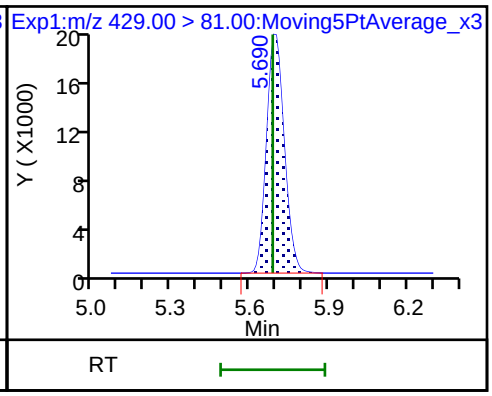
34 6:2 FTS



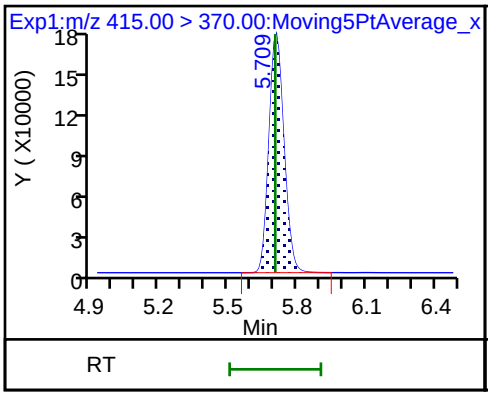
34 6:2 FTS



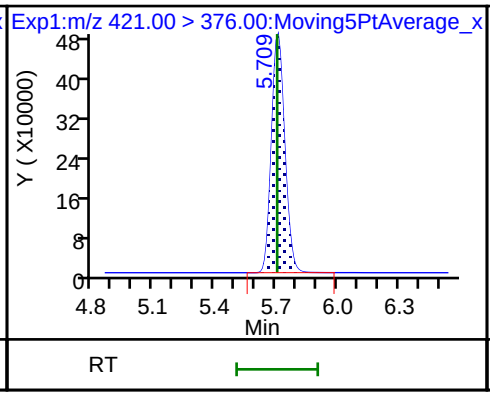
D 35 M2-6:2 FTS



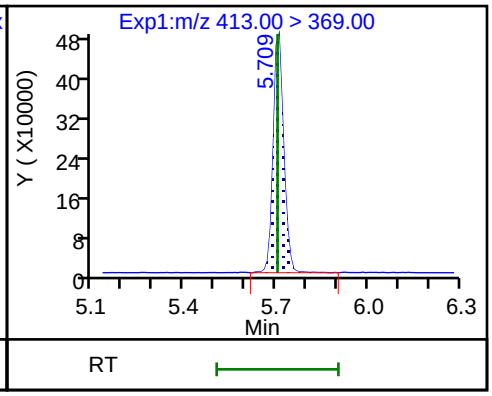
* 38 13C2 PFOA



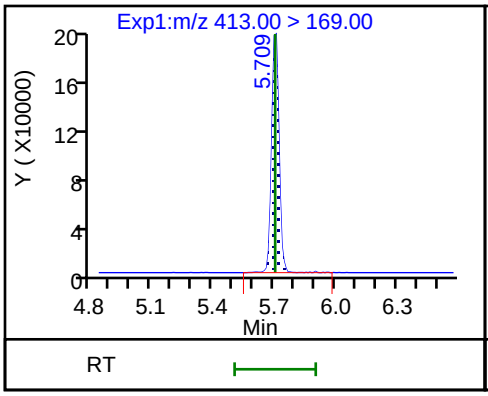
D 37 13C8 PFOA



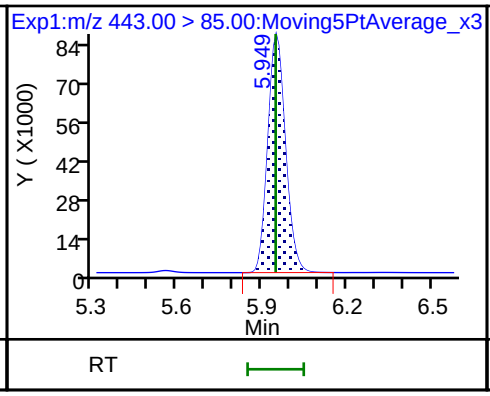
40 Perfluorooctanoic acid



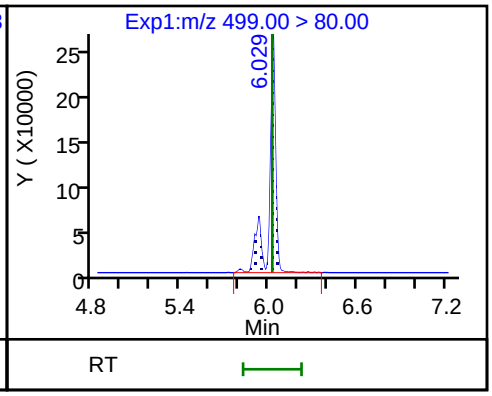
40 Perfluorooctanoic acid



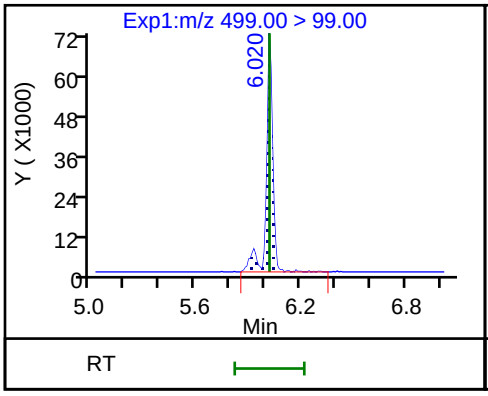
101 TAF



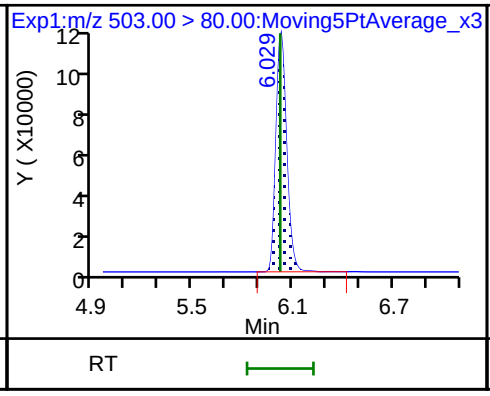
43 Perfluorooctanesulfonic acid



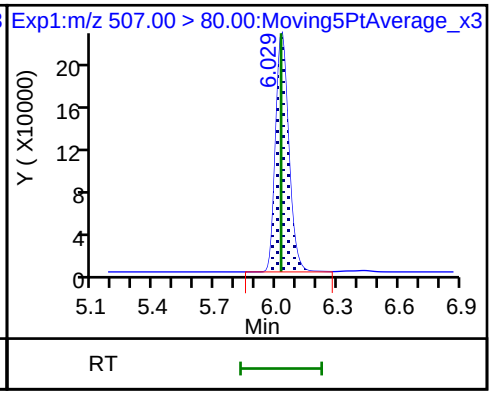
43 Perfluorooctanesulfonic acid



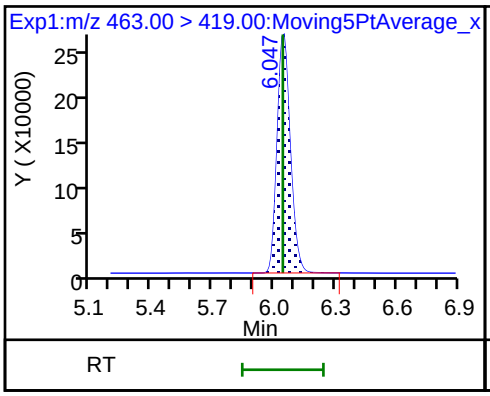
* 42 13C4 PFOS



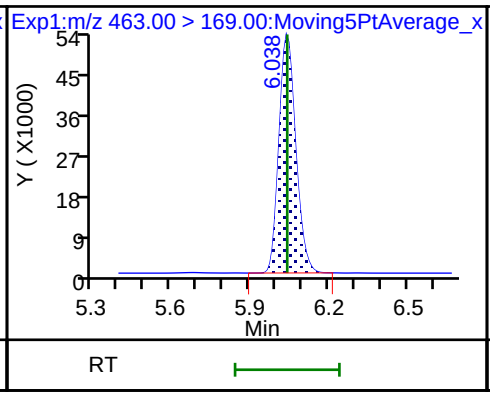
D 41 13C8 PFOS



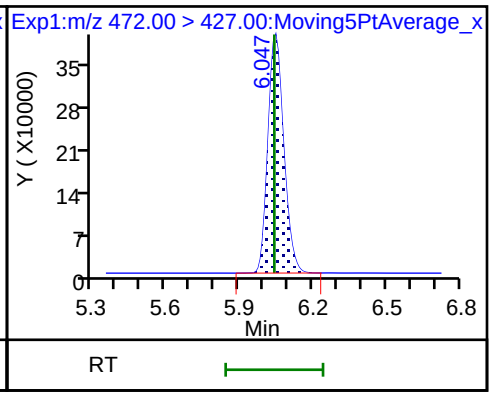
44 Perfluorononanoic acid



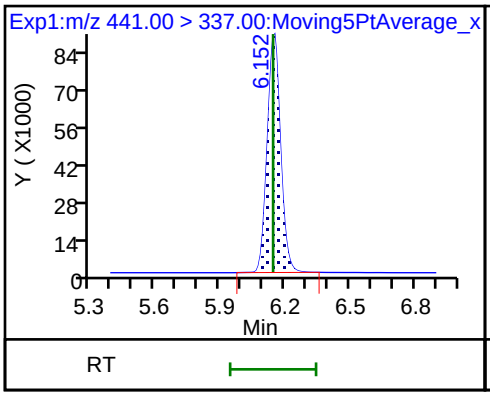
44 Perfluorononanoic acid



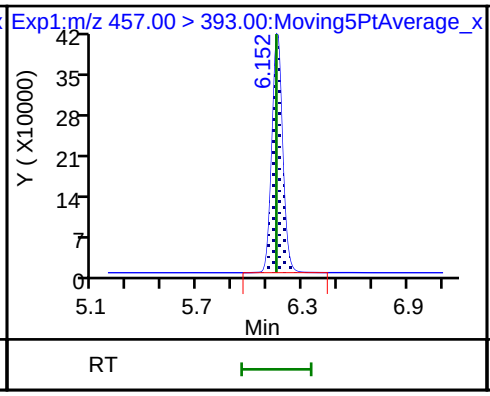
D 45 13C9 PFNA



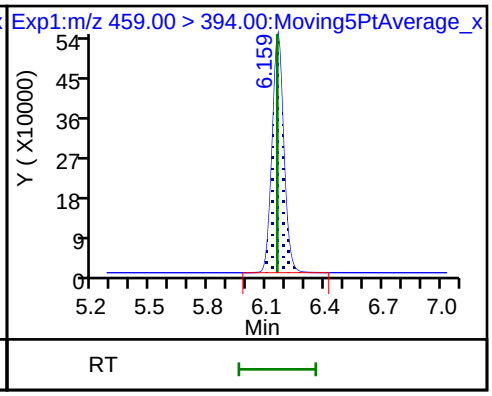
46 7:3 FTCA



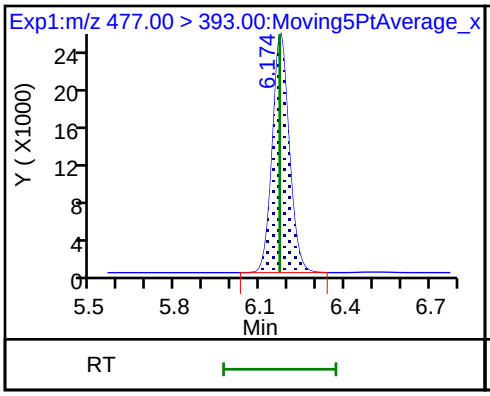
47 8:2 FTUCA



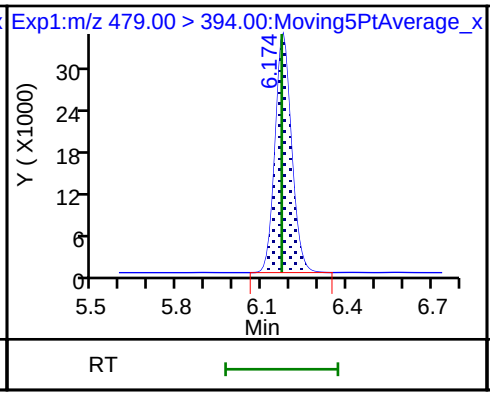
D 48 13C-8:2 FTUCA



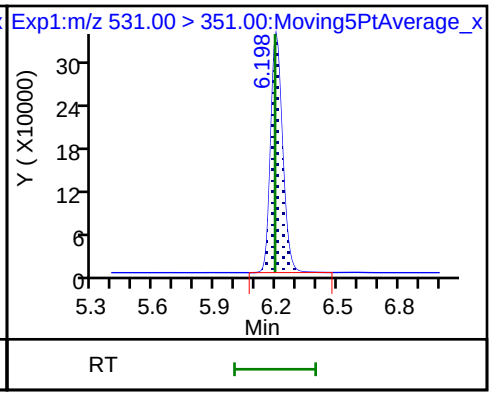
49 8:2 FTCA



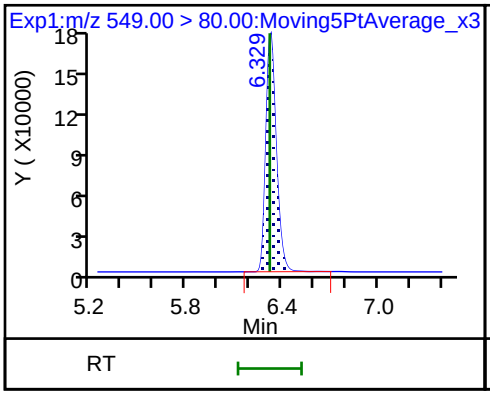
D 50 13C-8:2 FTCA



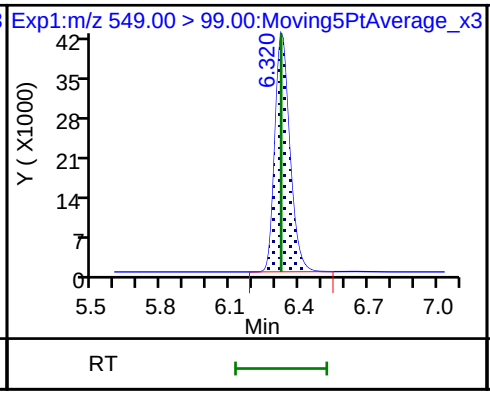
51 9ClFOS



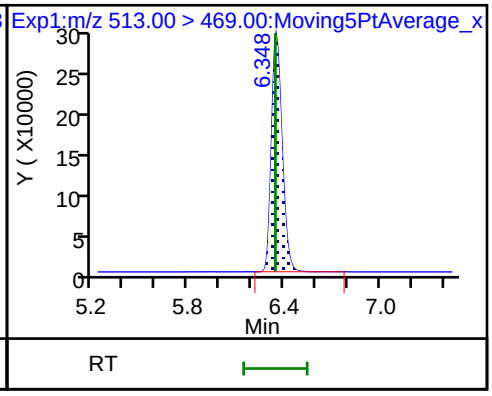
52 Perfluorononanesulfonic acid



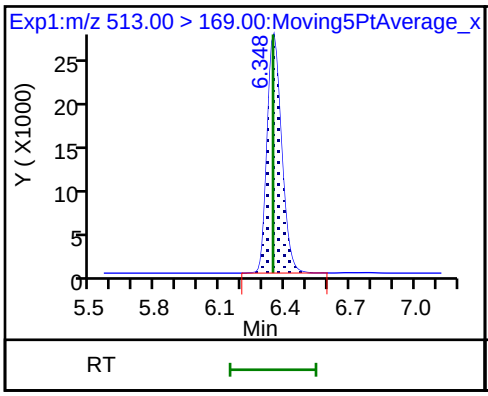
52 Perfluorononanesulfonic acid



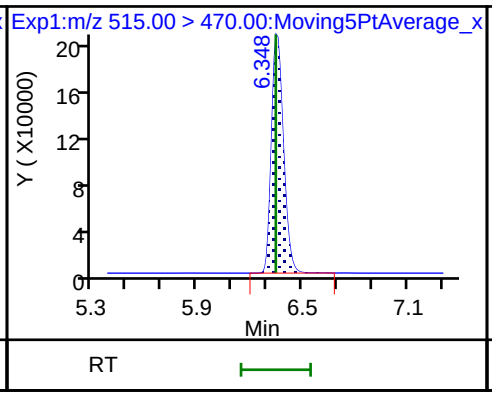
53 Perfluorodecanoic acid



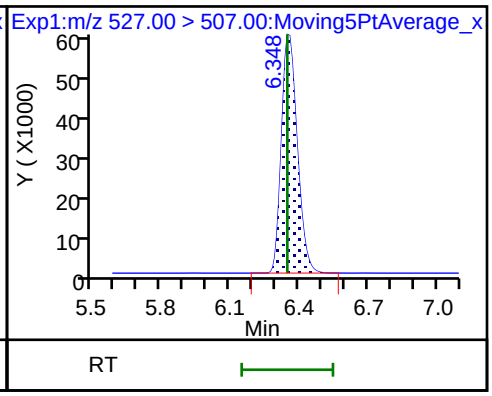
53 Perfluorodecanoic acid



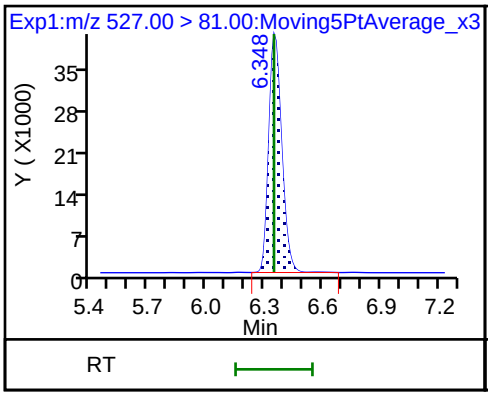
* 55 13C2 PFDA



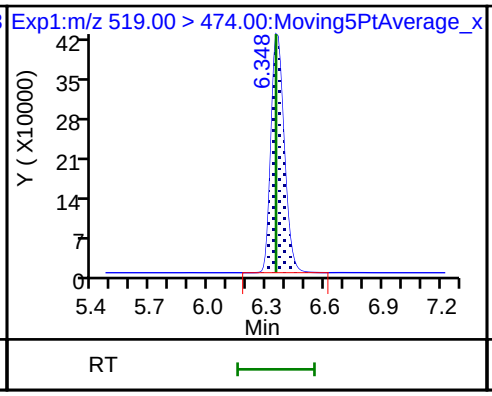
56 8:2 FTS



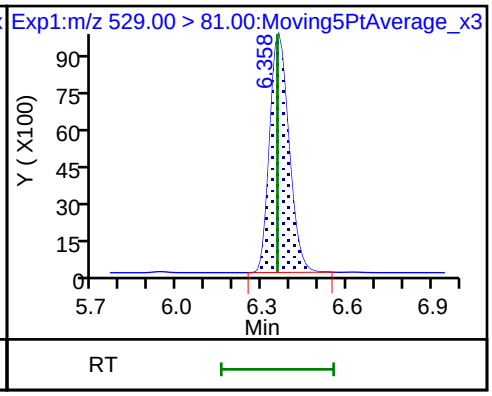
56 8:2 FTS



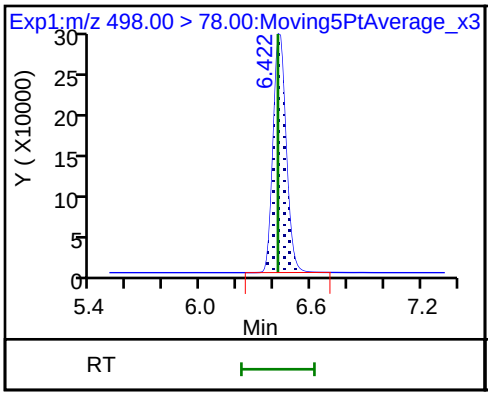
D 54 13C6 PFDA



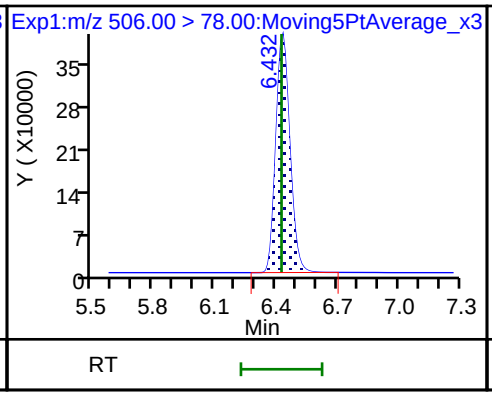
D 57 M2-8:2 FTS



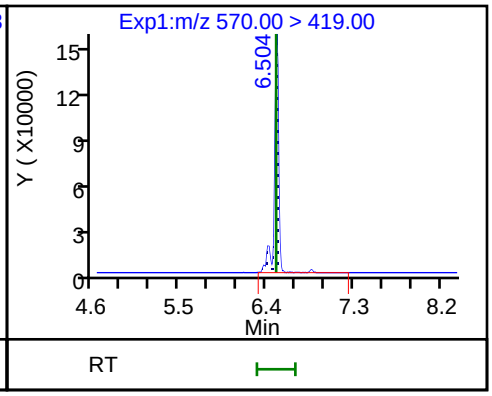
58 Perfluorooctanesulfonamide



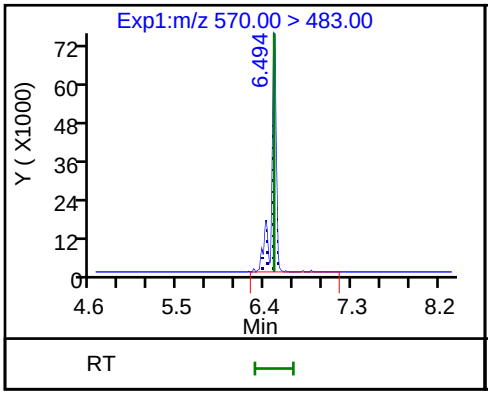
D 59 13C8 FOSA



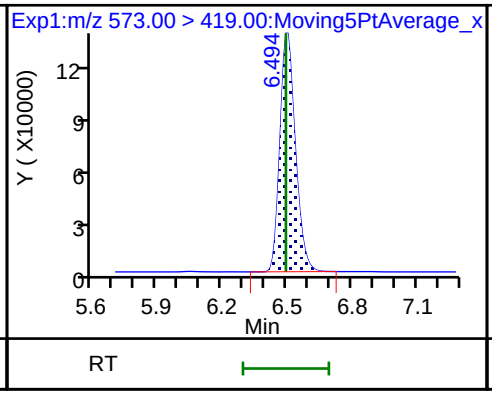
60 NMeFOSAA



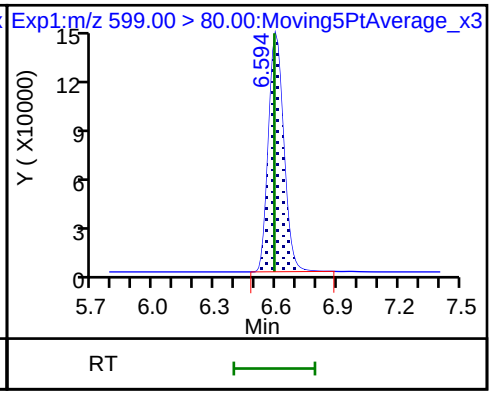
60 NMeFOSAA



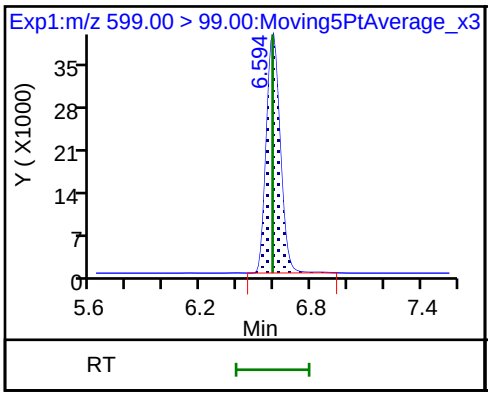
D 61 d3-NMeFOSAA



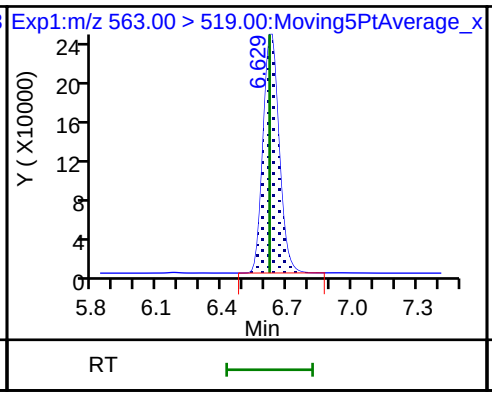
62 Perfluorodecanesulfonic acid



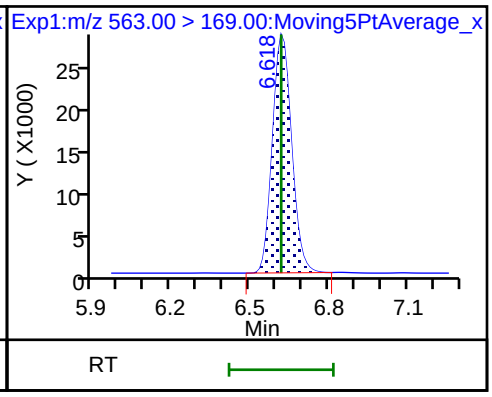
62 Perfluorodecanesulfonic acid



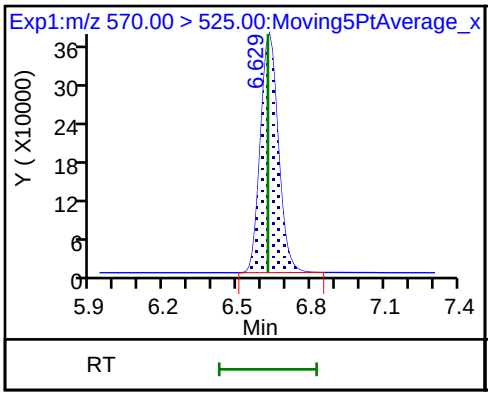
63 Perfluoroundecanoic acid



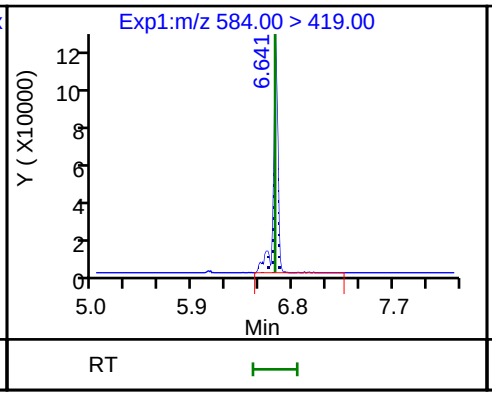
63 Perfluoroundecanoic acid



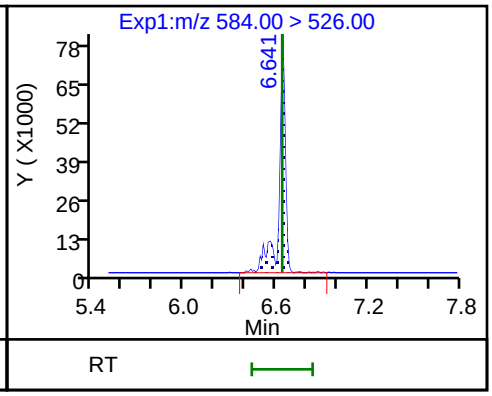
D 65 13C7 PFUnA



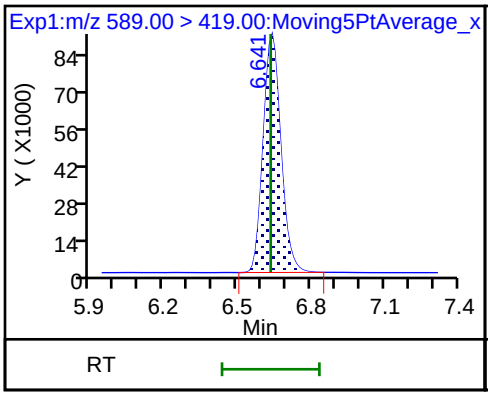
67 NEtFOSAA



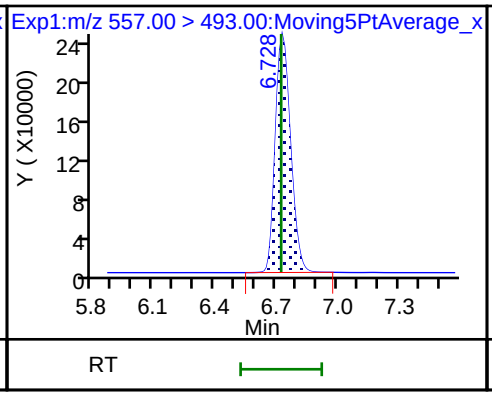
67 NEtFOSAA



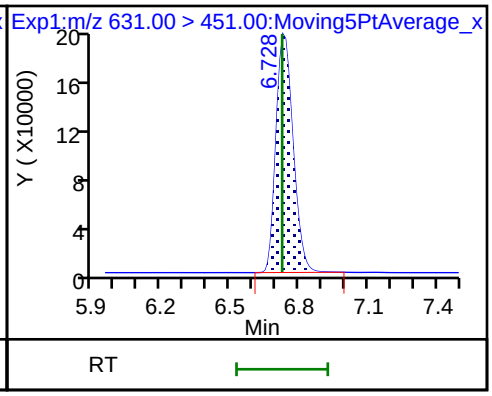
D 66 d5-NEtFOSAA



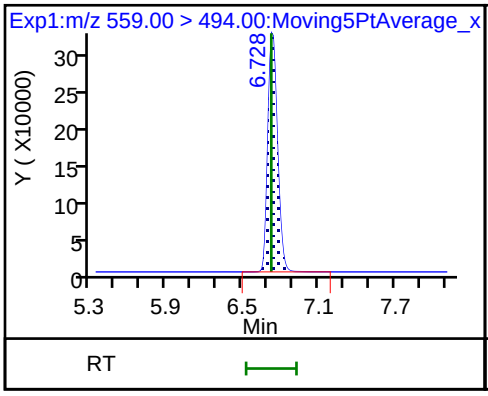
68 10:2 FTUCA



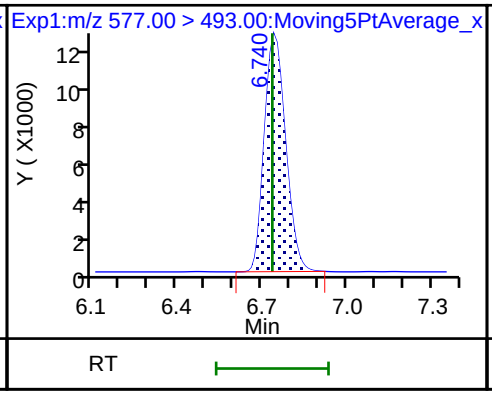
69 11ClFOS



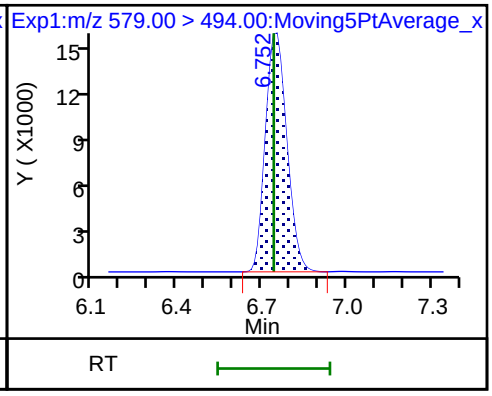
D 70 13C-10:2 FTUCA



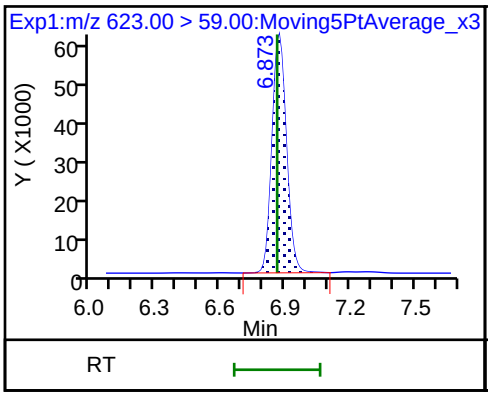
71 10:2 FTCA



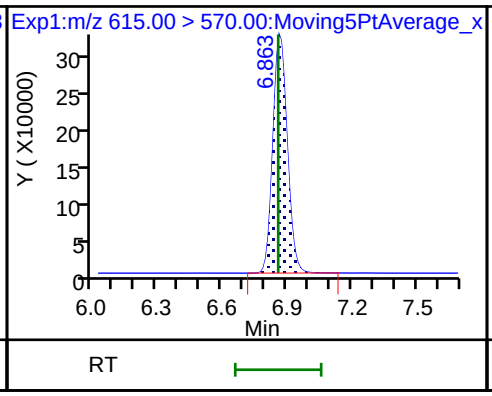
D 72 13C-10:2 FTCA



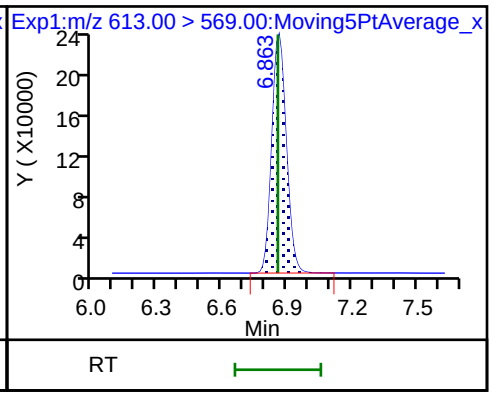
D 76 d7-N-MeFOSE-M



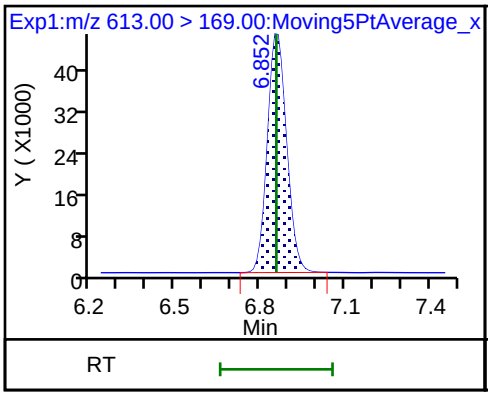
D 74 13C2-PFDoDA



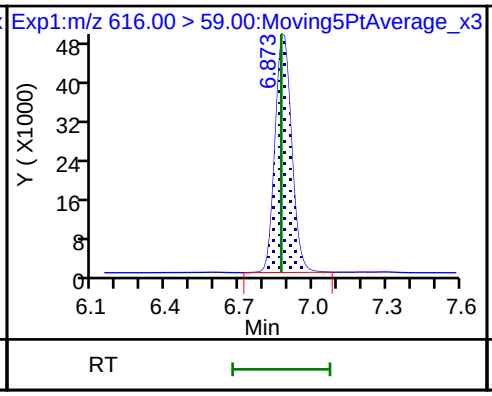
73 Perfluorododecanoic acid



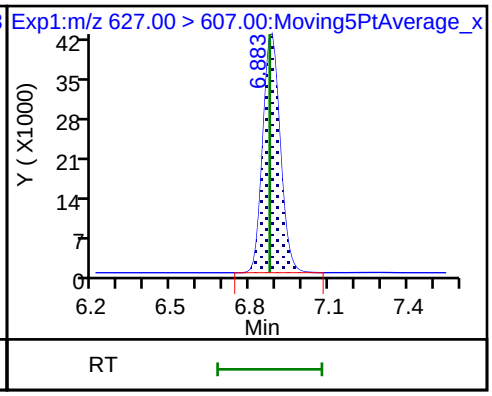
73 Perfluorododecanoic acid



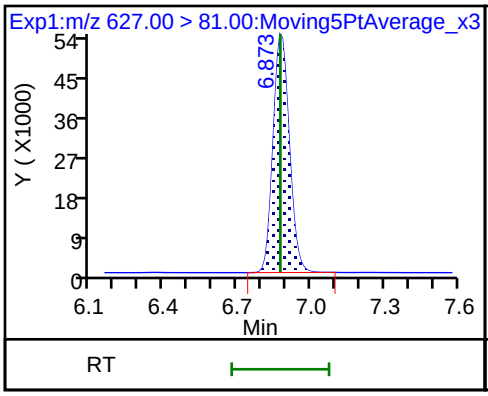
77 N-MeFOSE-M



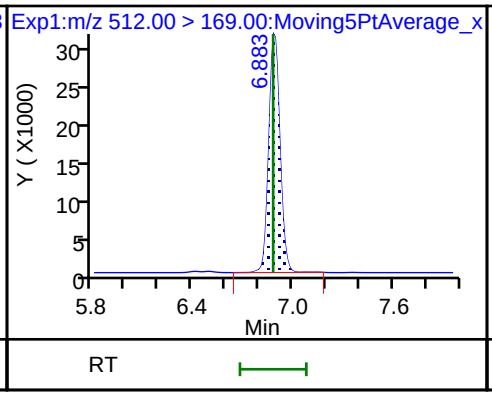
75 10:2 FTS



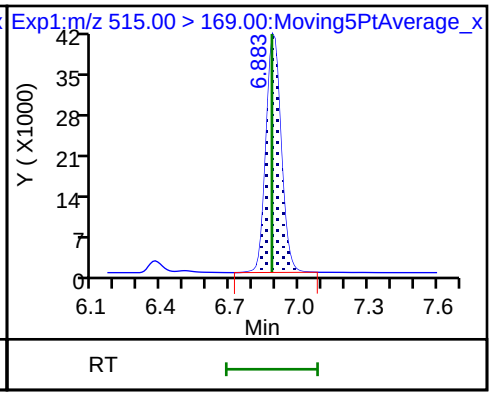
75 10:2 FTS



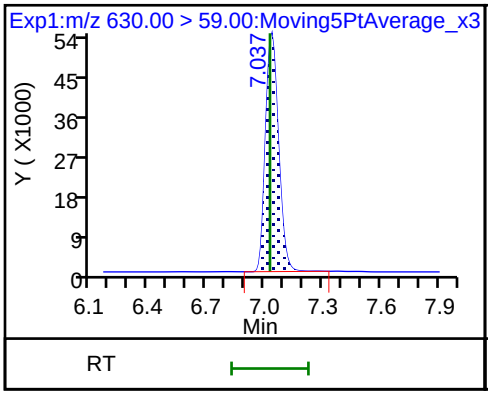
78 NMeFOSA



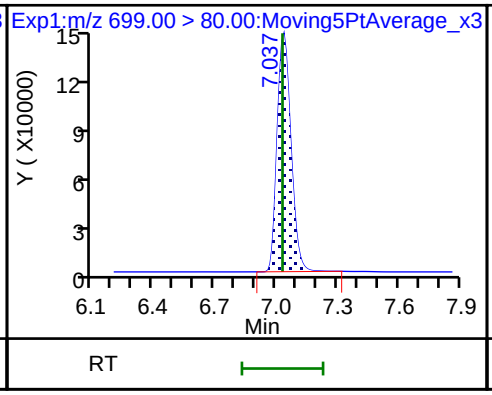
D 79 d3-NMePFOSA



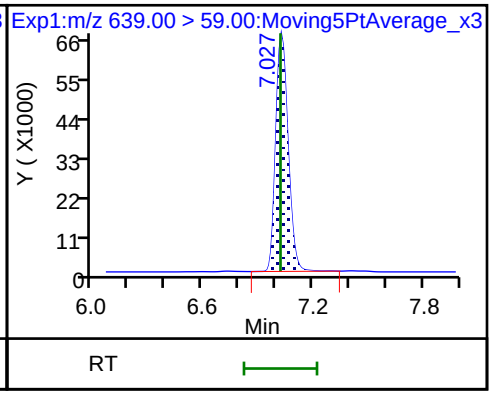
82 N-EtFOSE-M



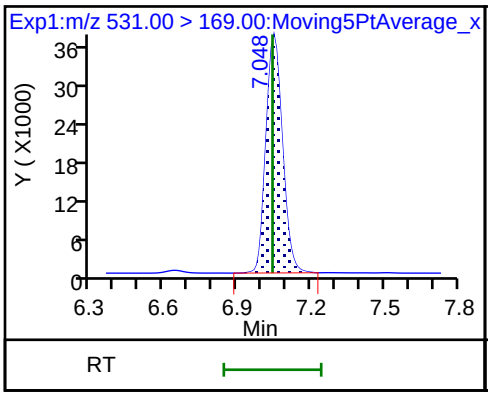
80 PFDoS



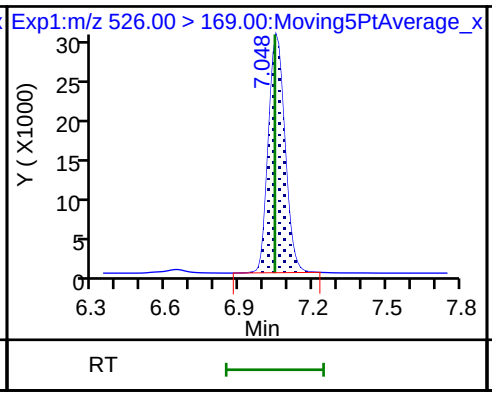
D 81 d9-N-EtFOSE-M



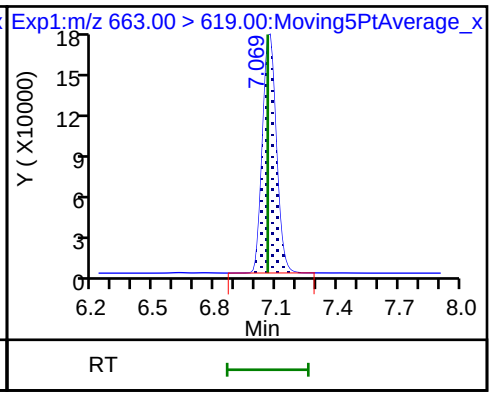
D 83 d5-NEtPFOSA



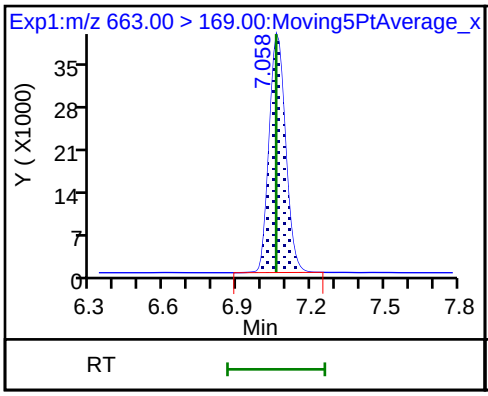
84 N-EtFOSA-M



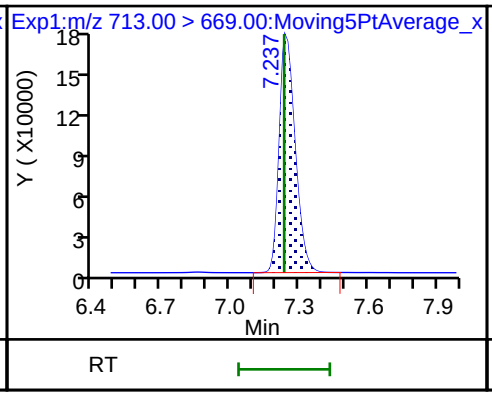
85 Perfluorotridecanoic acid



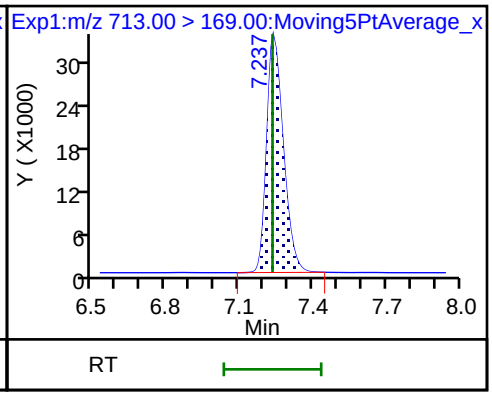
85 Perfluorotridecanoic acid



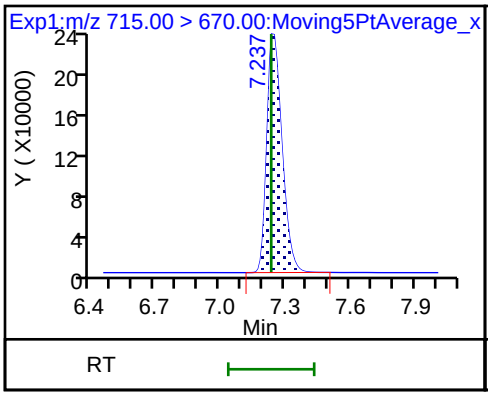
86 Perfluorotetradecanoic acid



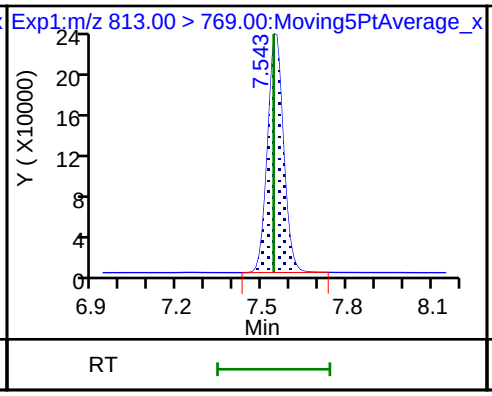
86 Perfluorotetradecanoic acid



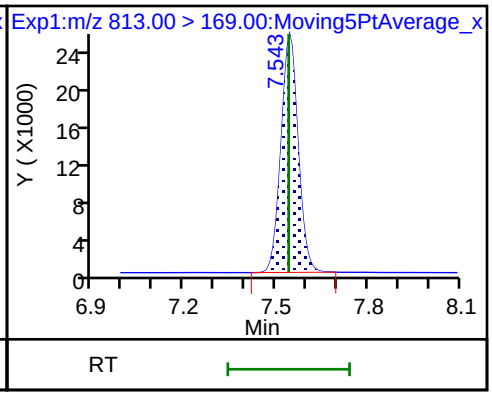
D 87 13C2 PFTeDA



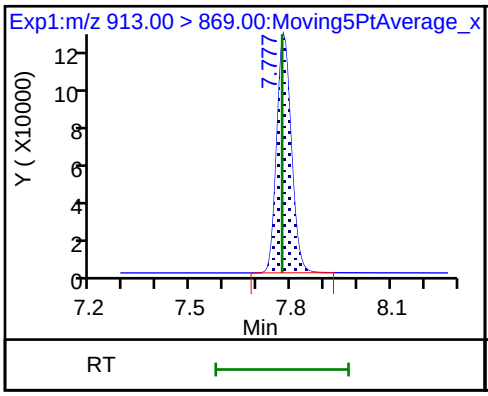
88 Perfluorohexadecanoic acid



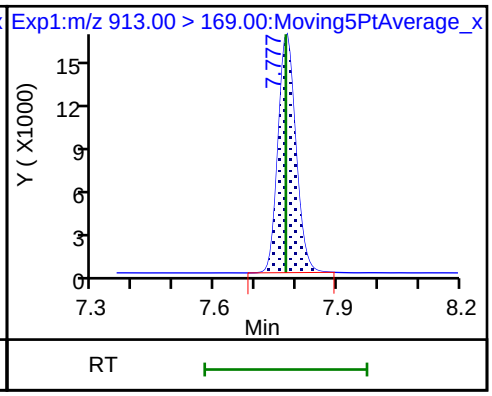
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

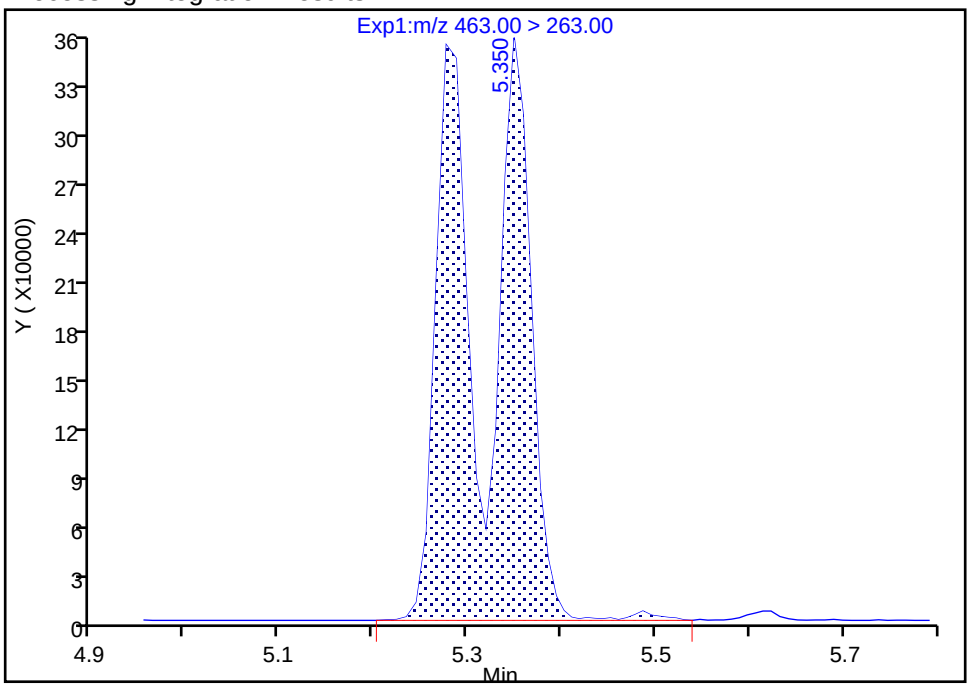
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-04.d				
Injection Date:	22-Feb-2022 15:45:21	Instrument ID:	30733		
Lims ID:	IC CAL4				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20005	Worklist Smp#:	4
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

106 Hydro-PS Acid, CAS: 749836-20-2

Signal: 1

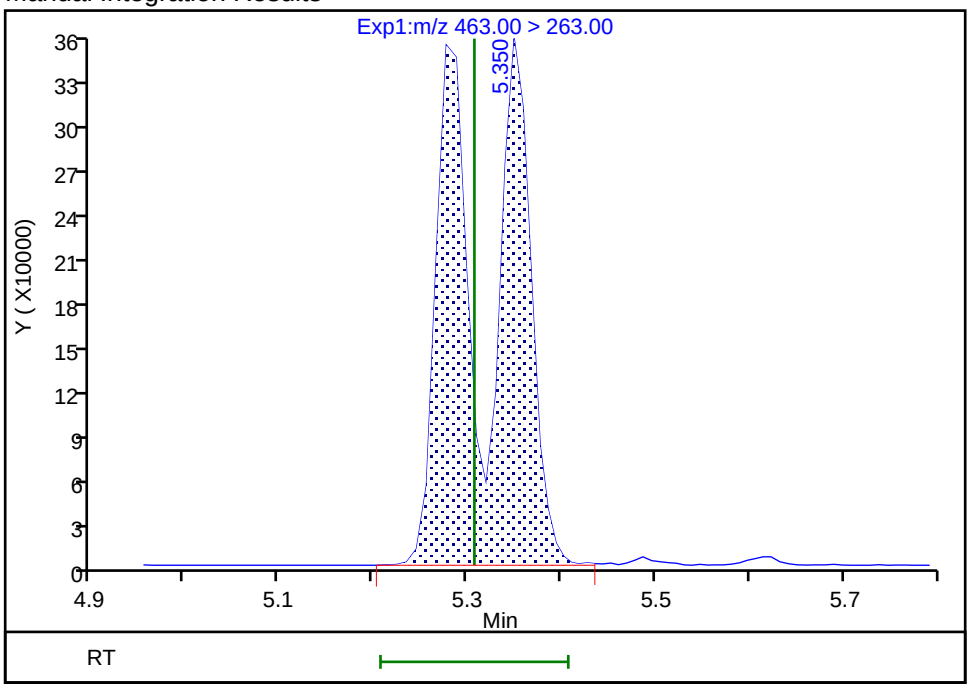
Processing Integration Results

RT: 5.35
Area: 1622361
Amount: 7.923749
Amount Units: ng/ml



Manual Integration Results

RT: 5.35
Area: 1610483
Amount: 7.728751
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:52:18

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-05.d
Lims ID: ICISAV CAL5
Client ID:
Sample Type: ICISAV Calib Level: 5
Inject. Date: 22-Feb-2022 15:56:27 ALS Bottle#: 20006 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: ICISAV CAL5
Misc. Info.: Plate: 1 Rack: 1 410-0050930-005
Operator ID: US19_USR_INS20260 Instrument ID: 30733
Sublist: chrom-PFAS_30733_XList_2*sub1

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 10:06:14 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1604

First Level Reviewer: fellenbauma Date: 22-Feb-2022 19:56:09
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										
175.00 > 97.00	1.485	1.481	0.004	0.374	188497	20.2		101	324	
1 PPF Acid										
163.00 > 119.00	1.836	1.838	-0.002	0.462	1577221	21.0		105	10866	
96 PFMOAA										
179.00 > 85.00	2.946	2.948	-0.002	0.741	948101	20.7		103	7596	
100 R-PSDA										
441.00 > 241.00	3.949	3.955	-0.006	0.863	68924	19.0		95.0	4924	
99 R-EVE										
405.00 > 217.00	3.957	3.957	0.0	0.996	231687	19.7		98.7	12393	
105 Hydrolyzed PSDA										
439.00 > 343.00	3.965	3.972	-0.007	0.867	341173	18.7		93.5	16228	
D 3 13C4 PFBA										
217.00 > 172.00	3.974	3.977	-0.003	1.000	1522365	9.96		99.6	86153	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.974	3.977	-0.003	1.000	2731789	19.0		95.2	44258	
* 4 13C3-PFBA										
216.00 > 172.00	3.974	3.979	-0.005		686672	5.00			1995	
102 PMPA										
229.00 > 185.00	4.100	4.105	-0.005	1.032	1425553	21.5		107	27857	
5 PFPrS										
249.00 > 99.00	4.162	4.165	-0.003	1.047	651535	18.7		102	45787	
103 NVHOS										
297.00 > 135.00	4.193	4.199	-0.006	0.917	617414	18.5		92.6	42807	
6 PFECA F										
229.00 > 85.00	4.225	4.225	0.0	1.063	2821770	20.7		103	15759	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 PFO2HxA										
245.00 > 85.00	4.404	4.411	-0.007	1.108	950622	20.6		103	48801	
7 Perfluoropentanoic acid										
263.00 > 219.00	4.516	4.522	-0.006	0.998	2837408	19.6		98.2	63769	
D 8 13C5 PFPeA										
268.00 > 223.00	4.526	4.529	-0.003	1.139	1392197	10.6		106	77446	
9 3:3 FTCA										
241.00 > 177.00	4.516	4.525	-0.009	0.998	181712	19.5		97.4	13176	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.575	4.579	-0.005	1.000	2008577	16.0	Target=3.22	90.7	91885	
299.00 > 99.00	4.565	4.579	-0.014	0.998	665207		3.02(1.61-4.83)	90.7	37918	
D 11 13C3 PFBS										
302.00 > 80.00	4.575	4.580	-0.006	1.151	1088599	10.4		111	84406	
91 PEPA										
279.00 > 235.00	4.629	4.635	-0.006	1.165	556155	19.9		99.5	18898	
12 PFECA A										
279.00 > 85.00	4.647	4.658	-0.011	1.016	2006817	18.1		90.3	80894	
13 PES										
315.00 > 135.00	4.741	4.746	-0.005	1.036	6398887	16.5		92.9	528436	
14 PFECA B										
201.00 > 85.00	4.871	4.877	-0.006	1.065	2584528	18.9	Target=1.44	94.7	4312	
295.00 > 201.00	4.871	4.877	-0.006	1.065	1745344		1.48(0.72-2.15)	94.7	126721	
15 4:2 FTS										
327.00 > 307.00	4.901	4.907	-0.006	1.000	1162525	18.8	Target=1.53	100	84540	
327.00 > 81.00	4.901	4.907	-0.006	1.000	665343		1.75(0.77-2.30)	100	48260	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.901	4.907	-0.006	0.860	185798	8.76		93.7	13404	
D 19 13C5 PFHxA										
318.00 > 273.00	4.942	4.948	-0.006	0.867	1614532	9.78		97.8	69252	
17 Perfluorohexanoic acid										
313.00 > 269.00	4.942	4.946	-0.004	1.000	2780252	20.5	Target=16.07	103	73850	
313.00 > 119.00	4.932	4.946	-0.014	0.998	181438		15.32(8.04-24.11)	103	12809	
$ 18 13C2 PFHxA										
315.00 > 270.00	4.942	4.948	-0.006	0.867	1245182	NC			89059	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.953	4.961	-0.008	1.083	2020367	18.4	Target=3.46	98.0	145747	
349.00 > 99.00	4.953	4.961	-0.008	1.083	570446		3.54(1.73-5.19)	98.0	41574	
93 PFO3OA										
311.00 > 85.00	5.001	5.005	-0.004	1.259	915230	21.0		105	68930	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.072	5.077	-0.005	0.890	227192	9.35		93.5	17290	
21 HFPO-DA										
329.00 > 285.00	5.063	5.074	-0.011	0.998	847499	19.5		97.5	48804	
97 Hydro-EVE Acid										
427.00 > 283.00	5.274	5.286	-0.012	1.327	4000289	20.8		104	3792	
94 R-PSDCA										
397.00 > 217.00	5.285	5.289	-0.004	1.155	5236436	18.9		94.5	216715	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.327	5.335	-0.008	1.000	3594624	18.7	Target=3.65	93.4	110609	
363.00 > 169.00	5.327	5.335	-0.008	1.000	1032139		3.48(1.82-5.47)	93.4	73304	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.327	5.335	-0.008	1.000	1986247	16.5	Target=3.59	90.7	5319	
399.00 > 99.00	5.327	5.335	-0.008	1.000	571473		3.48(1.79-5.38)	90.7	1871	
D 24 13C4 PFHpA										
367.00 > 322.00	5.327	5.336	-0.009	0.935	1904482	10.4		104	81618	
D 25 13C3 PFHxS										
402.00 > 80.00	5.327	5.335	-0.008	0.935	1044892	10.2		108	75340	
106 Hydro-PS Acid										M
463.00 > 263.00	5.274	5.307	-0.033	1.153	4068861	18.6		92.9	74639	M
27 DONA										
377.00 > 251.00	5.376	5.381	-0.005	1.009	4374644	18.0		95.4	170498	
98 PFECA G										
379.00 > 185.00	5.393	5.399	-0.006	1.357	4701615	21.3		107	226865	
28 5:3 FTCA										M
341.00 > 237.00	5.409	5.414	-0.005	1.015	729867	19.0	Target=50.84	95.1	57552	
339.00 > 295.00	5.442	5.414	0.028	1.022	13289		54.92(25.42-76.26)	95.1	395	M
29 6:2 FTUCA										
357.00 > 293.00	5.434	5.438	-0.004	1.000	4173241	19.3		96.3	141518	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.434	5.439	-0.005	0.954	1594009	10.0		100	95589	
32 6:2 FTCA										
377.00 > 293.00	5.451	5.456	-0.005	1.000	271106	19.1		95.7	16018	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.451	5.456	-0.005	0.957	134338	9.21		92.1	10613	
95 PFO4DA										
377.00 > 85.00	5.512	5.513	-0.001	1.387	1043474	20.7		104	613	
104 PS Acid										
443.00 > 147.00	5.546	5.552	-0.006	1.212	1344138	19.3		96.6	108652	
90 EVE Acid										
407.00 > 263.00	5.562	5.573	-0.011	1.400	3249049	22.1		110	256006	
33 PFECHS										
461.00 > 381.00	5.631	5.640	-0.009	1.057	3469792	17.7	Target=1.94	95.6	255736	
461.00 > 99.00	5.631	5.640	-0.009	1.057	1794054		1.93(0.97-2.91)	95.6	100166	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.678	5.685	-0.007	1.066	2023055	18.0	Target=3.50	94.8	111602	
449.00 > 99.00	5.678	5.685	-0.007	1.066	561920		3.60(1.75-5.24)	94.8	41623	
34 6:2 FTS										
427.00 > 407.00	5.678	5.685	-0.007	1.000	707397	20.7	Target=1.31	109	51296	
427.00 > 81.00	5.678	5.685	-0.007	1.000	502270		1.41(0.65-1.96)	109	36679	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.678	5.686	-0.008	0.997	72044	8.21		86.5	5166	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.698	5.704	-0.006	1.000	3154253	20.0	Target=2.48	99.8	348470	
413.00 > 169.00	5.688	5.704	-0.016	0.998	1323818		2.38(1.24-3.72)	99.8	574344	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 38 13C2 PFOA										
415.00 > 370.00	5.698	5.704	-0.006		764091	5.00			56695	
D 37 13C8 PFOA										
421.00 > 376.00	5.698	5.704	-0.006	1.000	2066717	10.2		102	153587	
$ 39 13C4 PFOA										
417.00 > 372.00	5.698	5.704	-0.006	1.000	1914724	NC			107204	
101 TAF										
443.00 > 85.00	5.938	5.947	-0.009	1.494	950489	21.1		106	27638	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00	6.009	6.022	-0.013	0.998	1921287	18.0	Target=4.38	97.4	1890	
499.00 > 99.00	6.018	6.022	-0.004	1.000	424854		4.52(2.19-6.57)	97.4	667	
* 42 13C4 PFOS										
503.00 > 80.00	6.018	6.023	-0.005		475504	4.78			36055	
D 41 13C8 PFOS										
507.00 > 80.00	6.018	6.023	-0.005	1.000	956684	9.54		99.7	19761	
44 Perfluorononanoic acid										
463.00 > 419.00	6.036	6.041	-0.005	1.000	2916521	19.5	Target=4.84	97.5	93423	
463.00 > 169.00	6.027	6.041	-0.014	0.998	627613		4.65(2.42-7.25)	97.5	36024	
D 45 13C9 PFNA										
472.00 > 427.00	6.036	6.041	-0.005	1.003	1615951	9.68		96.8	90879	
46 7:3 FTCA										
441.00 > 337.00	6.133	6.144	-0.011	1.125	879683	19.9		99.3	66966	
47 8:2 FTUCA										
457.00 > 393.00	6.142	6.150	-0.008	0.999	3953517	19.4		97.0	306710	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.150	6.155	-0.005	0.971	1911155	9.88		98.8	112856	
49 8:2 FTCA										
477.00 > 393.00	6.158	6.169	-0.011	1.000	252942	21.7		109	20474	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.158	6.169	-0.011	0.972	124183	9.58		95.8	9984	
51 9ClFOS										
531.00 > 351.00	6.188	6.193	-0.005	1.028	3264851	17.9		96.5	268050	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.308	6.321	-0.013	1.048	2019479	20.2	Target=4.28	105	152762	
549.00 > 99.00	6.308	6.321	-0.013	1.048	448336		4.50(2.14-6.42)	105	34474	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.336	6.344	-0.008	1.000	3468669	18.9	Target=10.44	94.6	190175	
513.00 > 169.00	6.336	6.344	-0.008	1.000	326698		10.62(5.22-15.66)	94.6	24106	
* 55 13C2 PFDA										
515.00 > 470.00	6.336	6.346	-0.010		877455	5.00			62998	
56 8:2 FTS										
527.00 > 507.00	6.346	6.348	-0.002	1.000	714617	18.2	Target=1.54	94.8	50673	
527.00 > 81.00	6.336	6.348	-0.012	0.998	473512		1.51(0.77-2.31)	94.8	34298	
D 54 13C6 PFDA										
519.00 > 474.00	6.336	6.348	-0.012	1.000	1873145	10.7		107	100989	
D 57 M2-8:2 FTS										
529.00 > 81.00	6.346	6.354	-0.008	1.002	48773	10.2		107	3508	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.409	6.419	-0.010	0.998	3488135	19.7		98.7	236836	
D 59 13C8 FOSA										
506.00 > 78.00	6.420	6.425	-0.005	1.013	1759508	10.7		107	73202	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.492	6.494	-0.002	1.025	630934	10.7		107	21383	
60 NMeFOSAA										
570.00 > 419.00	6.492	6.497	-0.005	1.000	1076032	20.7	Target=1.64	103	365335	
570.00 > 483.00	6.482	6.497	-0.015	0.998	655087		1.64(0.82-2.46)	103	789	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.581	6.590	-0.009	1.094	2079586	20.0	Target=4.07	104	80880	
599.00 > 99.00	6.581	6.590	-0.009	1.094	478303		4.35(2.03-6.10)	104	30784	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.616	6.618	-0.002	1.000	3169358	20.3	Target=8.63	102	68574	
563.00 > 169.00	6.604	6.618	-0.014	0.998	347670		9.12(4.31-12.94)	102	22551	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.616	6.623	-0.007	1.161	1494177	NC			73554	
D 65 13C7 PFUnA										
570.00 > 525.00	6.616	6.623	-0.007	1.044	1768379	10.4		104	87265	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.627	6.635	-0.008	1.046	418273	10.1		101	20526	
67 NEtFOSAA										
584.00 > 419.00	6.627	6.638	-0.011	1.000	770737	20.7	Target=1.31	103	242164	
584.00 > 526.00	6.627	6.638	-0.011	1.000	566242		1.36(0.66-1.97)	103	1215	
68 10:2 FTUCA										
557.00 > 493.00	6.714	6.723	-0.009	1.000	3048890	20.2		101	147554	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.714	6.725	-0.011	1.060	1473223	10.1		101	94161	
69 11ClFOS										
631.00 > 451.00	6.714	6.725	-0.011	1.116	2547083	19.1		103	82591	
71 10:2 FTCA										
577.00 > 493.00	6.726	6.735	-0.009	0.998	150452	22.5		112	9662	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.738	6.741	-0.003	1.064	76108	10.5		105	4839	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.851	6.857	-0.006	1.000	2658055	19.2	Target=5.13	95.8	94344	
613.00 > 169.00	6.840	6.857	-0.017	0.999	542143		4.90(2.56-7.69)	95.8	28786	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.851	6.858	-0.007	1.081	1363171	10.8		108	73809	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.861	6.863	-0.002	1.083	267540	10.2		102	9540	
77 N-MeFOSE-M										
616.00 > 59.00	6.861	6.870	-0.009	1.000	590501	20.7		103	25580	
75 10:2 FTS										
627.00 > 607.00	6.871	6.874	-0.003	1.083	463715	17.8	Target=0.83	92.2	33449	
627.00 > 81.00	6.861	6.874	-0.013	1.081	595043		0.78(0.42-1.25)	92.2	43100	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 79 d3-NMePFOSA										
515.00 > 169.00	6.871	6.880	-0.009	1.084	175505	10.4		104	5459	
78 NMeFOSA										
512.00 > 169.00	6.871	6.880	-0.009	1.000	387249	19.7		98.3	16800	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.014	7.022	-0.008	1.107	290487	9.72		97.2	9031	
82 N-EtFOSE-M										
630.00 > 59.00	7.025	7.027	-0.002	1.002	657068	21.7		109	35351	
80 PFDoS										
699.00 > 80.00	7.025	7.030	-0.005	1.167	1829528	19.1		98.8	65560	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.036	7.042	-0.006	1.110	165352	10.3		103	8938	
84 N-EtFOSA-M										
526.00 > 169.00	7.036	7.044	-0.008	1.000	359556	20.5		103	12890	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.047	7.057	-0.010	1.029	2103865	20.7	Target=4.34	103	75277	
663.00 > 169.00	7.047	7.057	-0.010	1.029	470988		4.47(2.17-6.51)	103	33928	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.227	7.234	-0.007	1.000	2084396	19.4	Target=5.08	97.1	74606	
713.00 > 169.00	7.227	7.234	-0.007	1.000	418013		4.99(2.54-7.61)	97.1	30411	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.227	7.235	-0.008	1.141	1169950	11.0		110	61950	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.535	7.540	-0.005	1.043	2180799	18.2	Target=9.01	90.8	68952	
813.00 > 169.00	7.535	7.540	-0.005	1.043	242263		9.00(4.50-13.51)	90.8	20168	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.771	7.773	-0.002	1.075	966512	19.3	Target=7.79	96.7	53550	
913.00 > 169.00	7.765	7.773	-0.008	1.074	125344		7.71(3.89-11.68)	96.7	13955	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD5_00013 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 10:06:16 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-05.d

Injection Date: 22-Feb-2022 15:56:27 Instrument ID: 30733

Lims ID: ICISAV CAL5

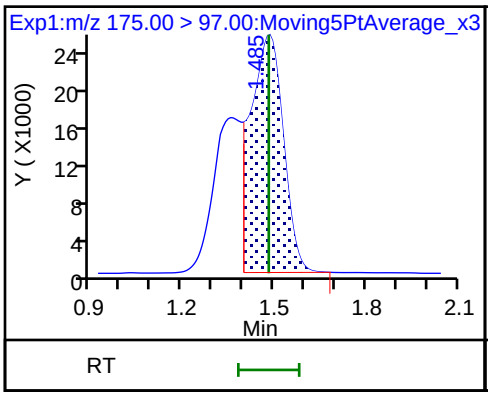
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20006 Worklist Smp#: 5

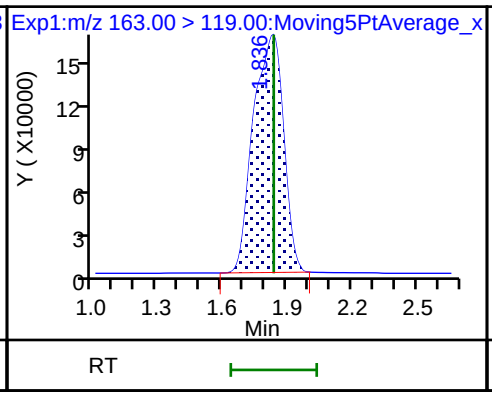
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

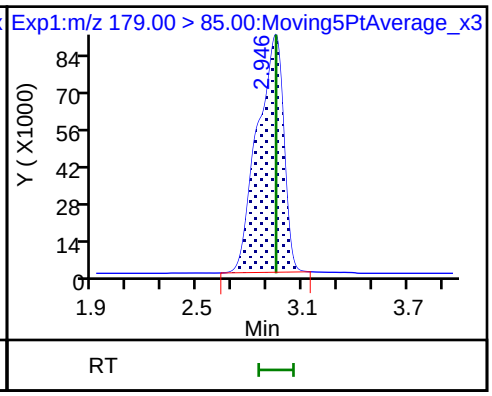
107 MTP



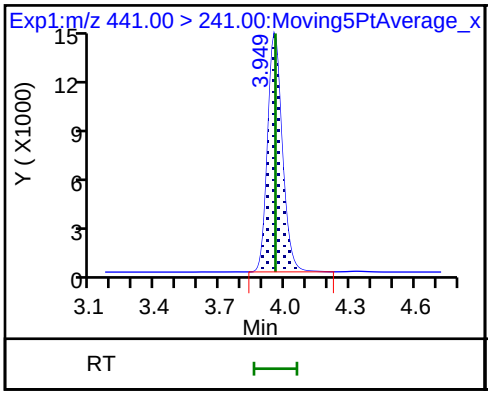
1 PPF Acid



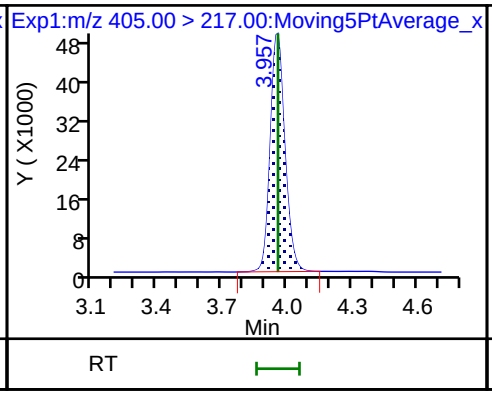
96 PFMOAA



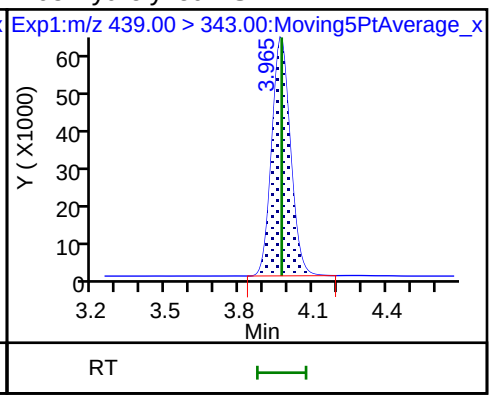
100 R-PSDA



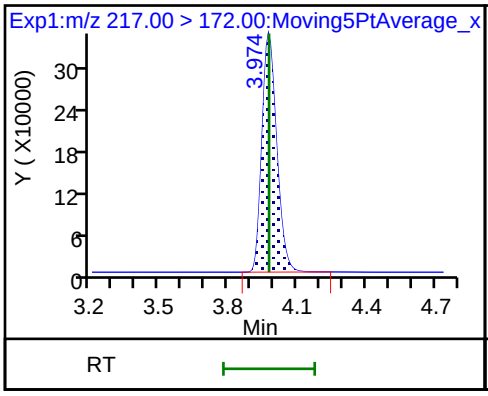
99 R-EVE



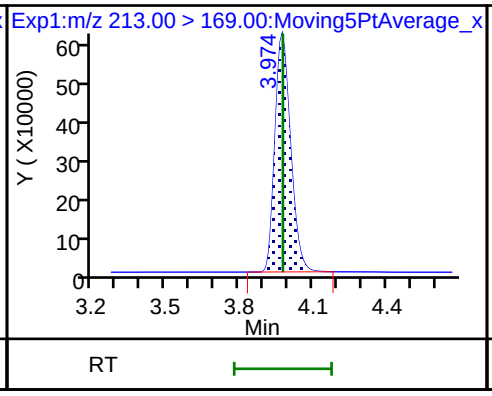
105 Hydrolyzed PSDA



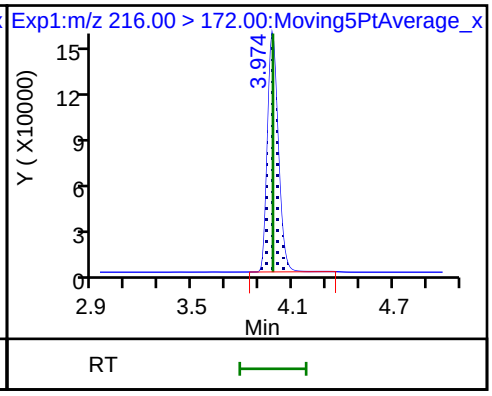
D 3 13C4 PFBA



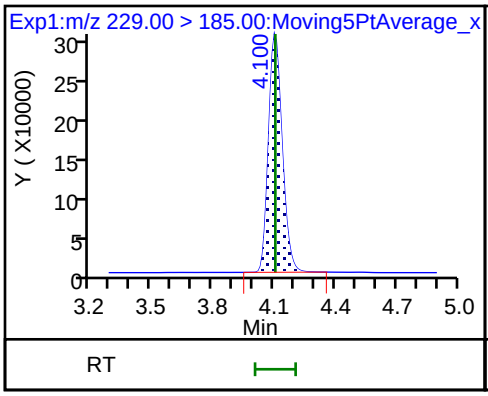
2 Perfluorobutanoic acid



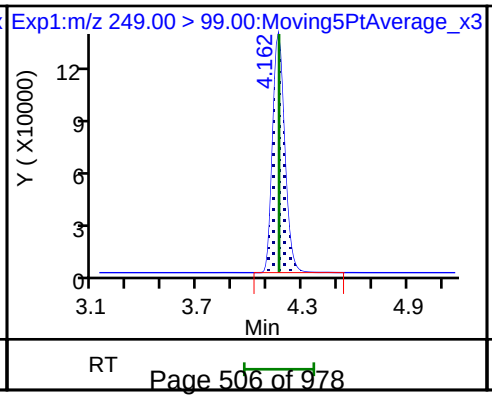
* 4 13C3-PFBA



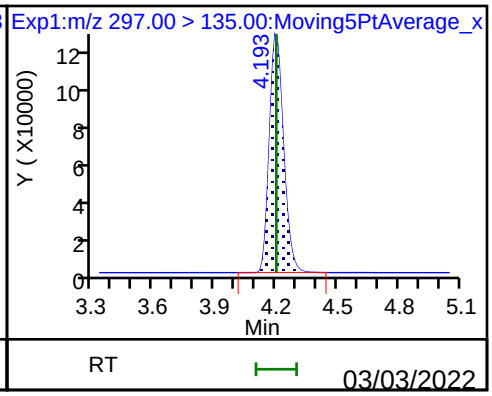
102 PMPA



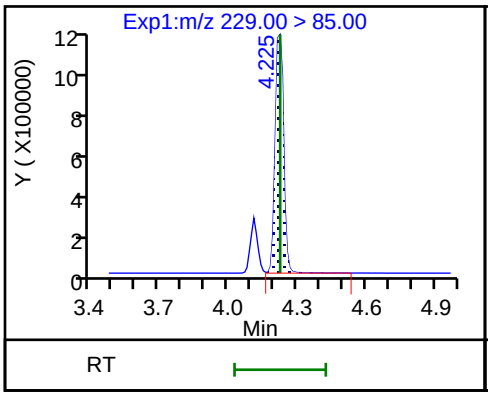
5 PFPrS



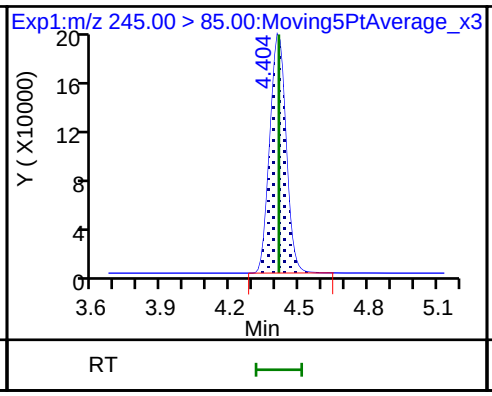
103 NVHOS



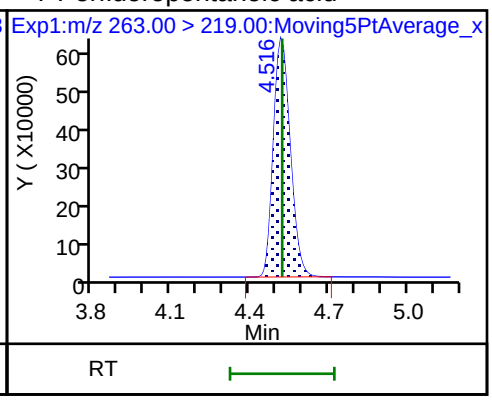
6 PFECA F



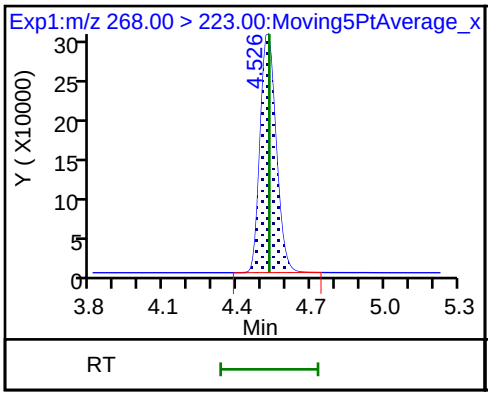
92 PFO2HxA



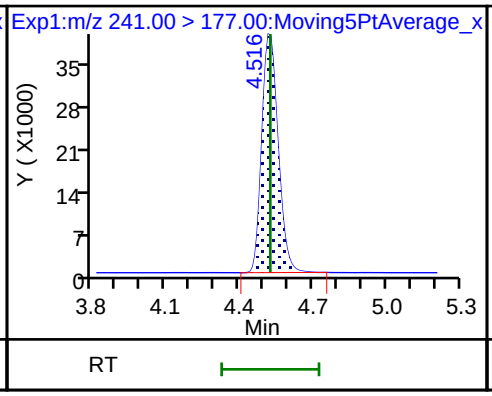
7 Perfluoropentanoic acid



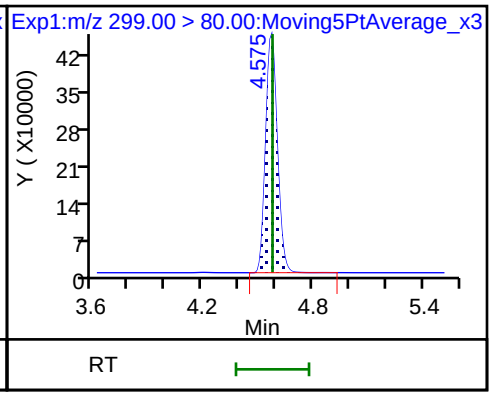
D 8 13C5 PFPeA



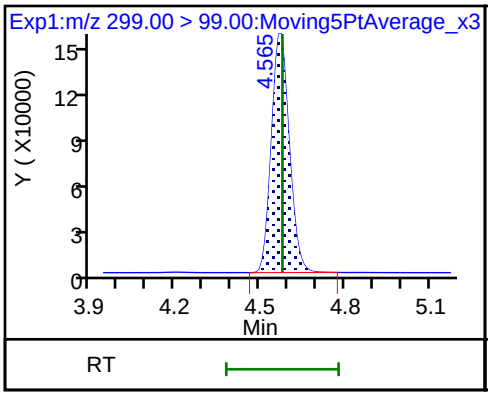
9 3:3 FTCA



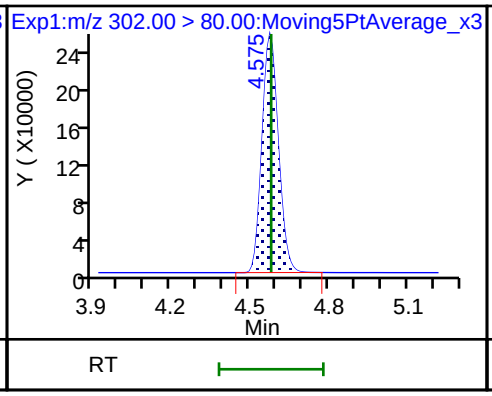
10 Perfluorobutanesulfonic acid



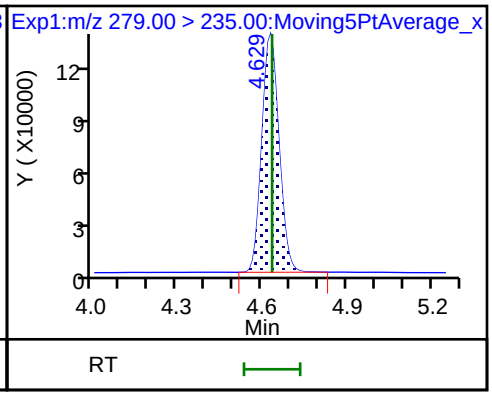
10 Perfluorobutanesulfonic acid



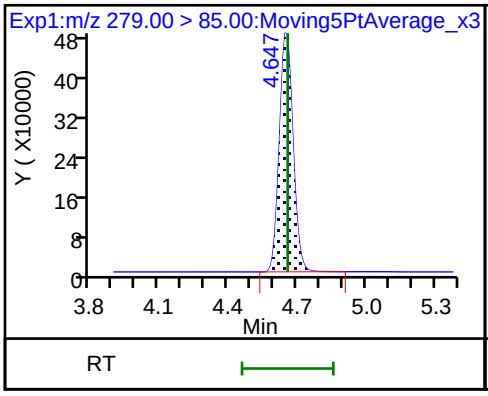
D 11 13C3 PFBS



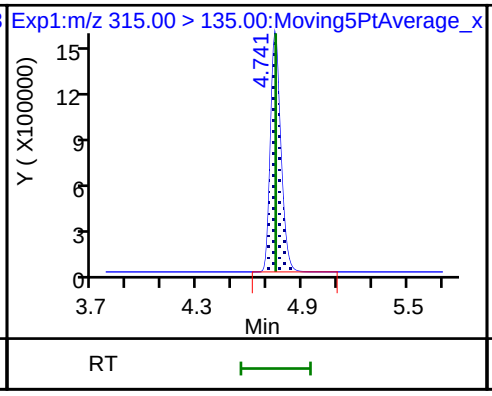
91 PEPA



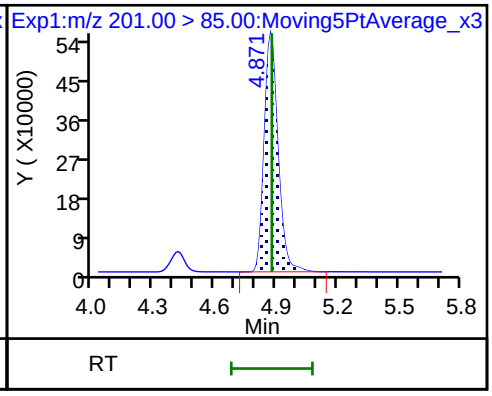
12 PFECA A



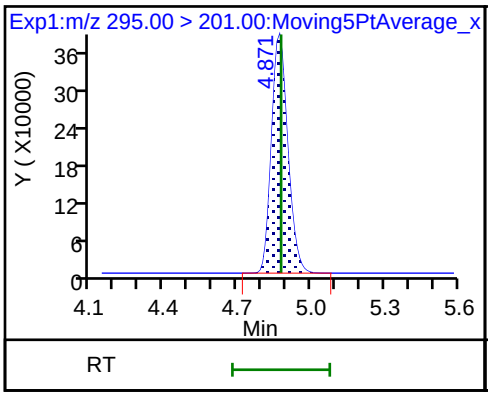
13 PES



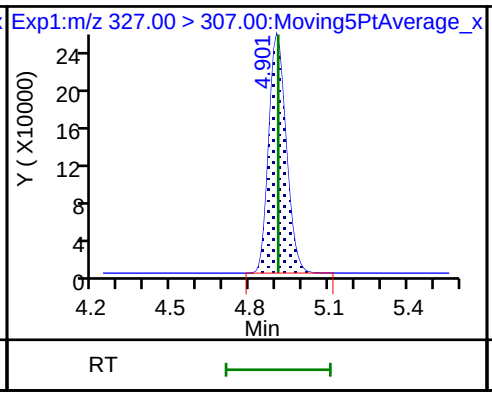
14 PFECA B



14 PFECA B



15 4:2 FTS



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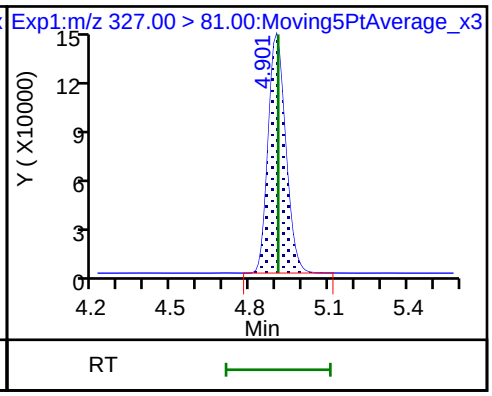
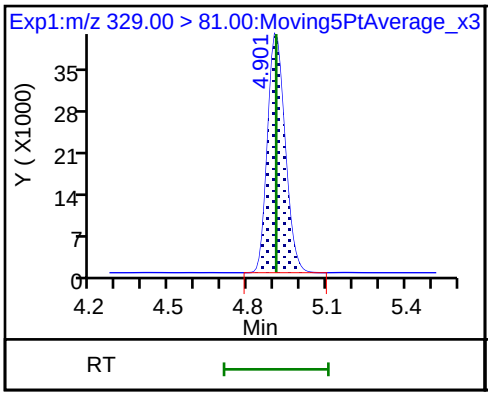
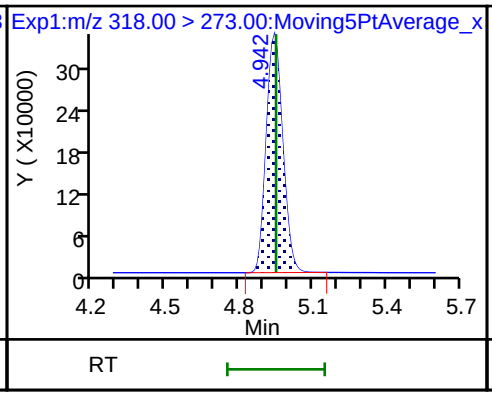


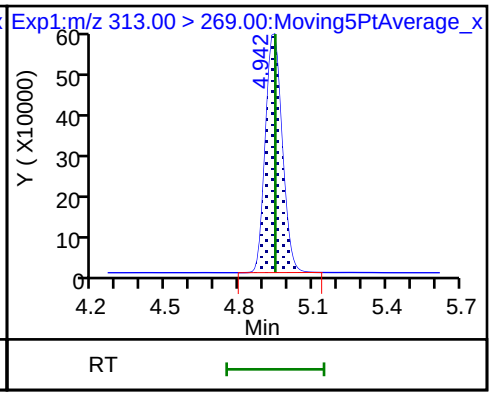
D 16 M2-4:2 FTS



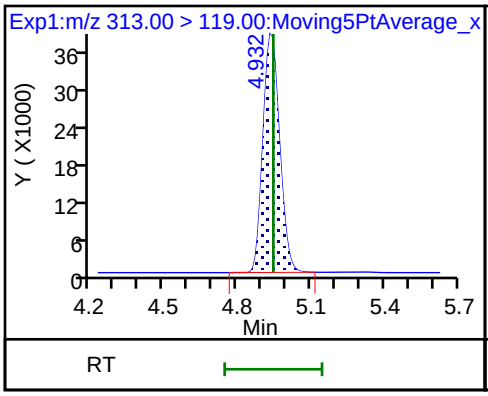
D 19 13C5 PFHxA



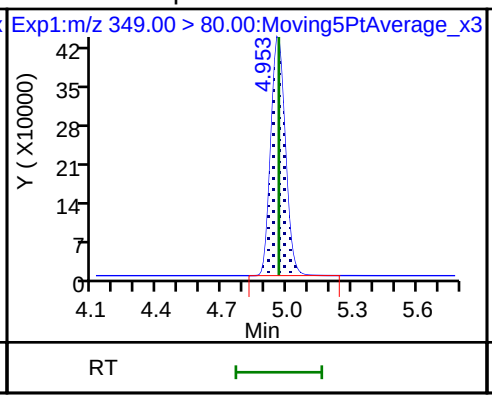
17 Perfluorohexanoic acid



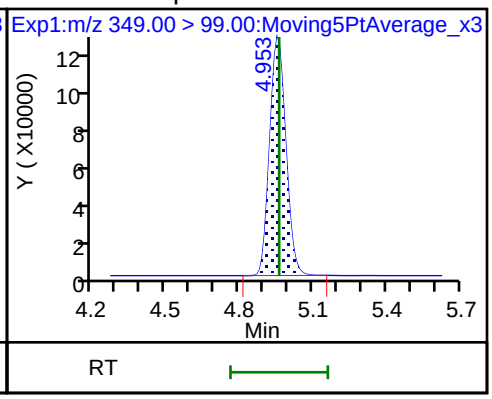
17 Perfluorohexanoic acid



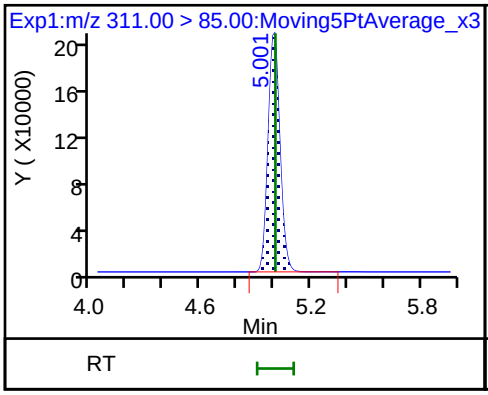
20 Perfluoropentanesulfonic acid



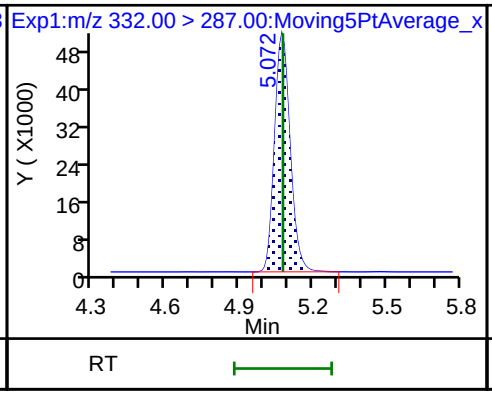
20 Perfluoropentanesulfonic acid



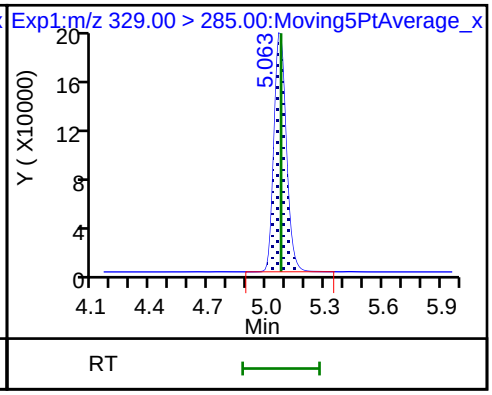
93 PFO3OA



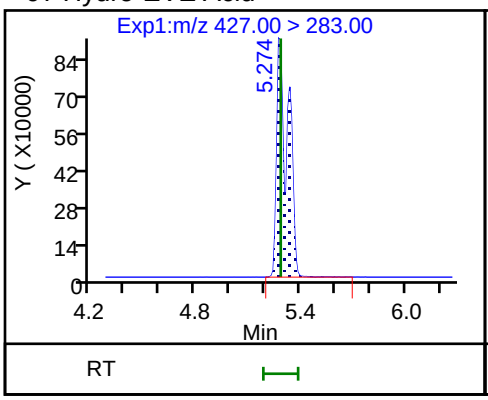
D 22 13C3 HFPO-DA



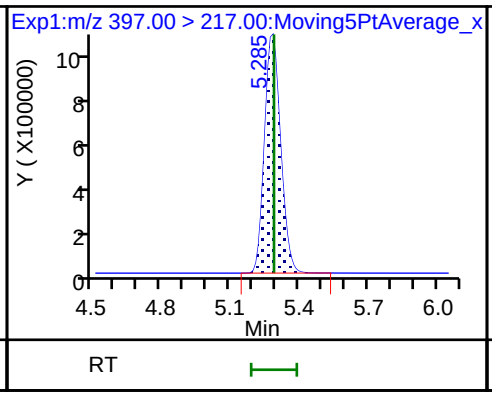
21 HFPO-DA



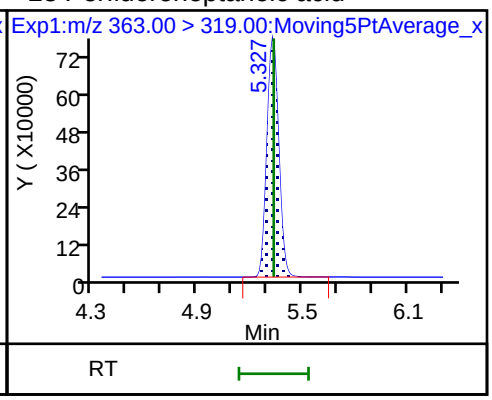
97 Hydro-EVE Acid



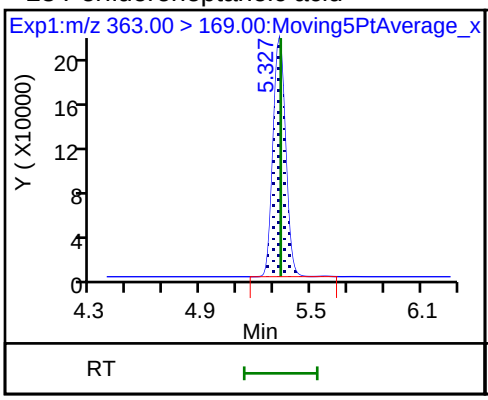
94 R-PSDCA



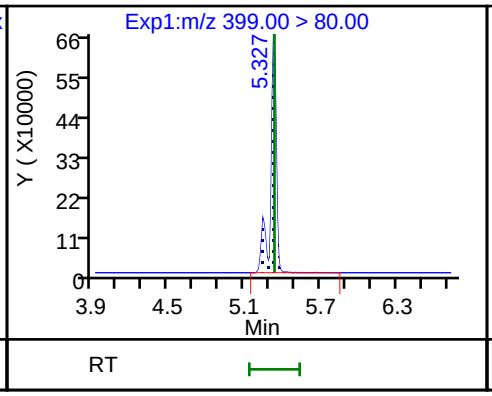
23 Perfluoroheptanoic acid



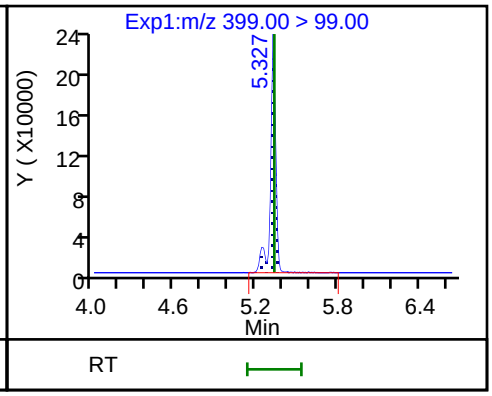
23 Perfluoroheptanoic acid



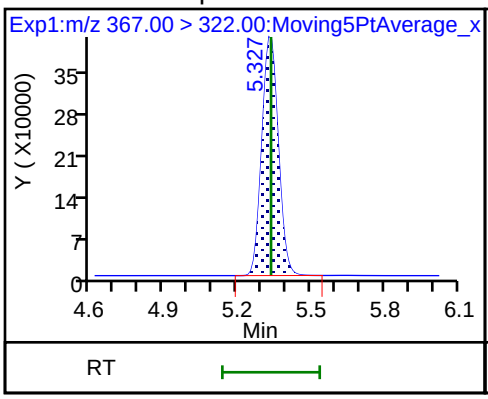
26 Perfluorohexanesulfonic acid



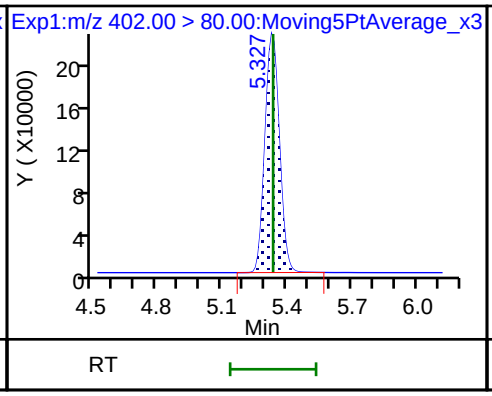
26 Perfluorohexanesulfonic acid



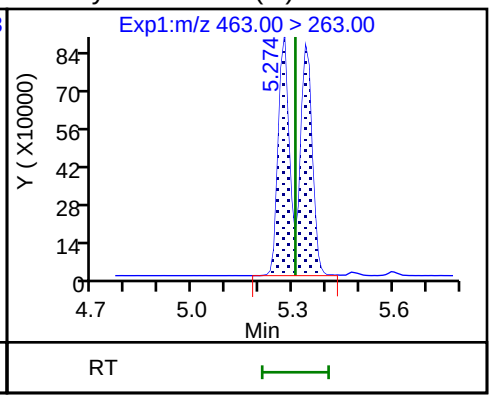
D 24 13C4 PFHpA



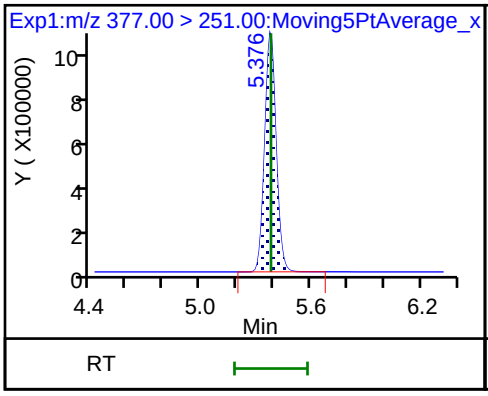
D 25 13C3 PFHxS



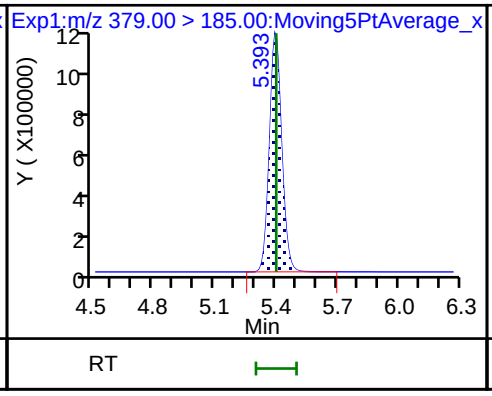
106 Hydro-PS Acid (M)



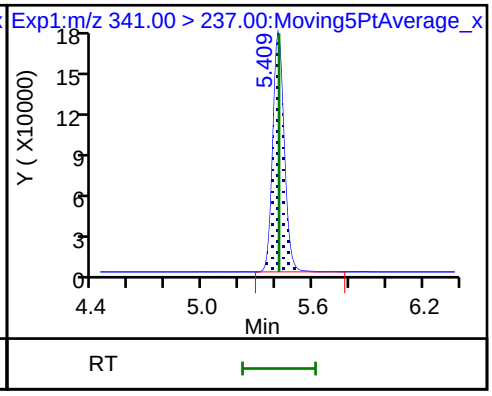
27 DONA



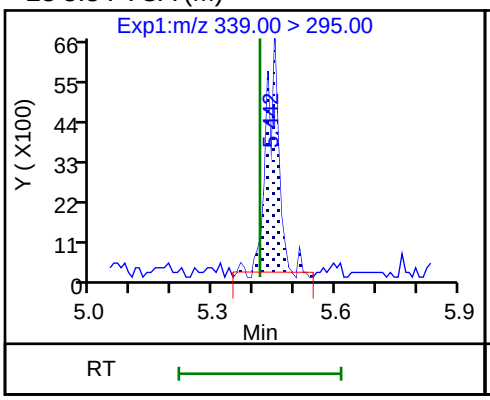
98 PFECA G



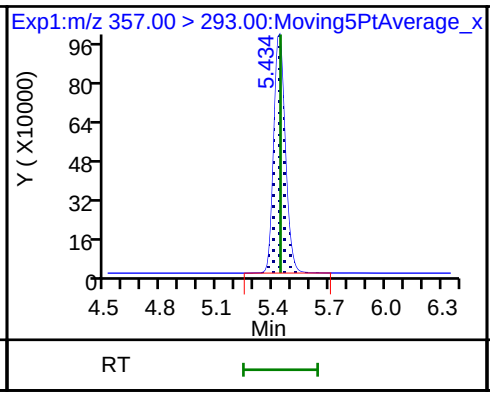
28 5:3 FTCA



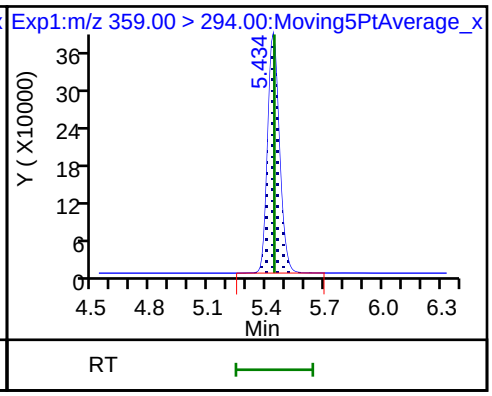
28 5:3 FTCA (M)



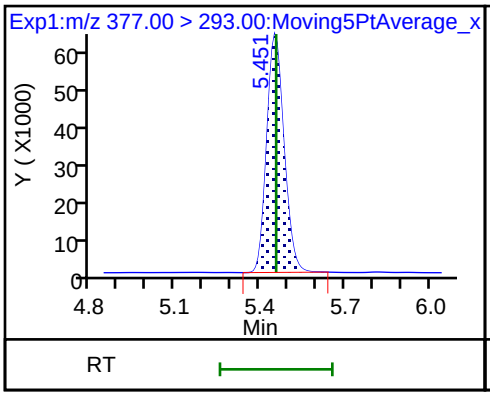
29 6:2 FTUCA



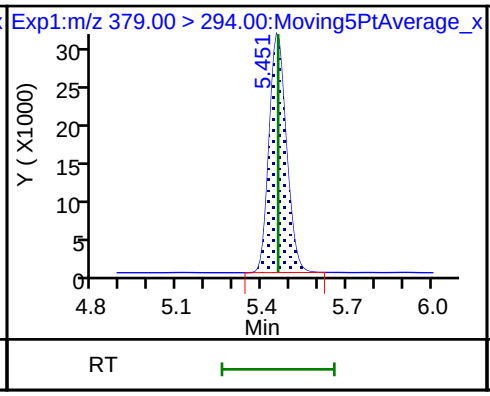
D 30 13C-6:2 FTUCA



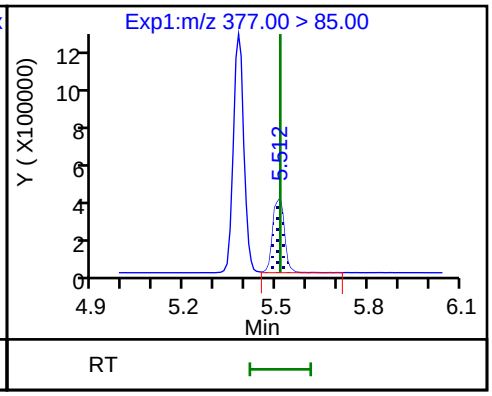
32 6:2 FTCA



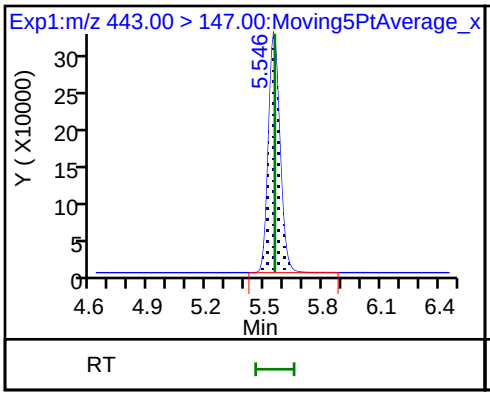
D 31 13C-6:2 FTCA



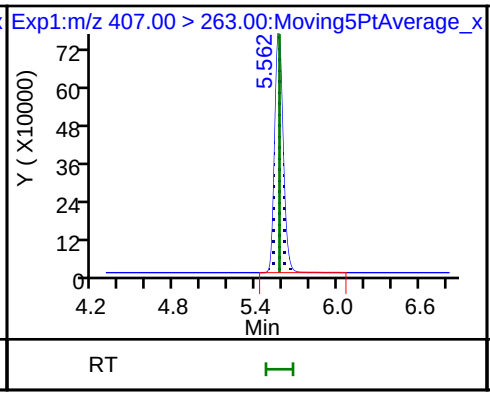
95 PFO4DA



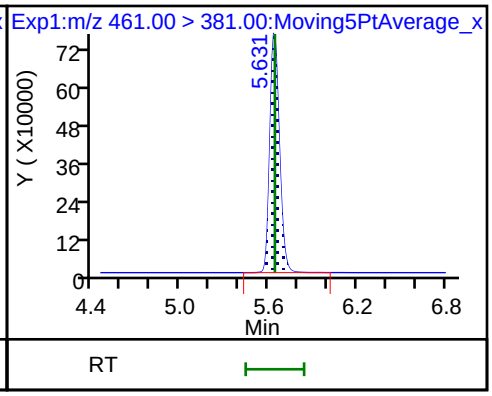
104 PS Acid



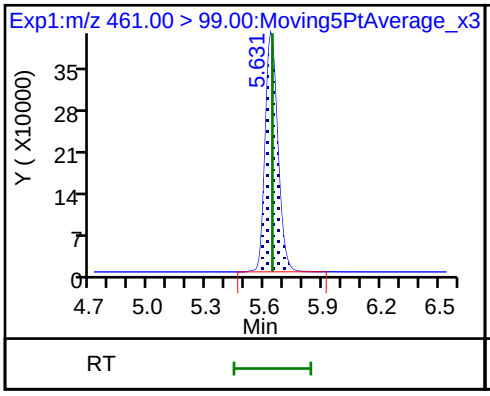
90 EVE Acid



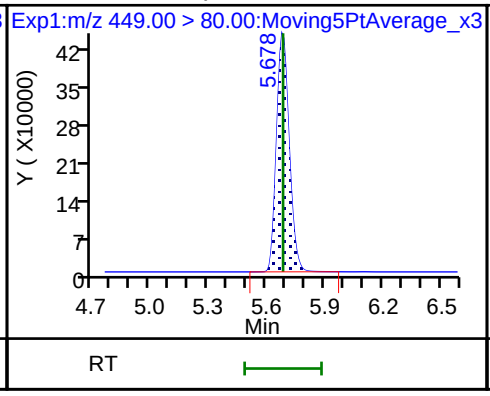
33 PFECHS



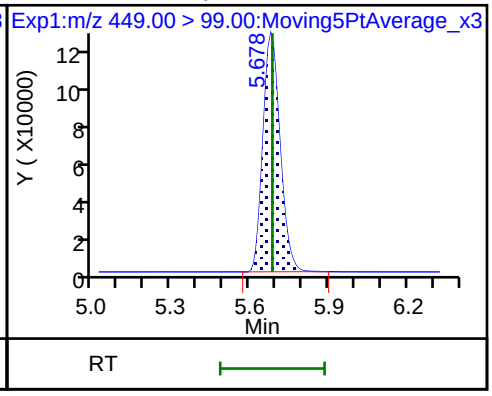
33 PFECHS



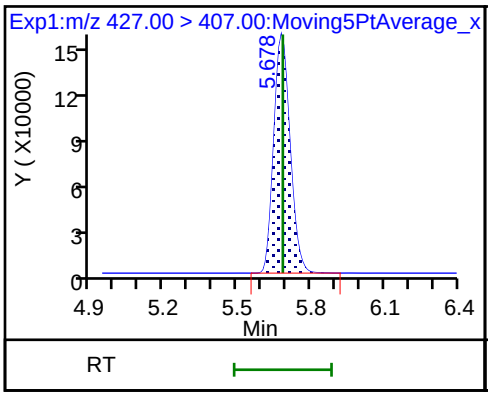
36 Perfluoroheptanesulfonic acid



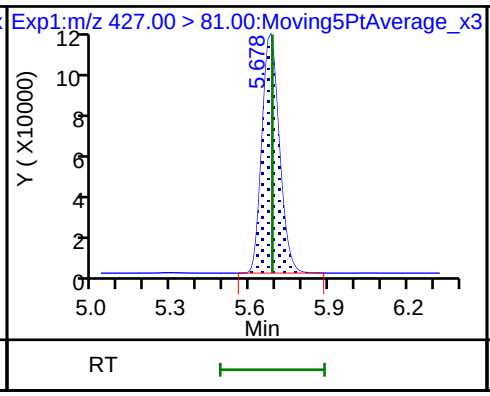
36 Perfluoroheptanesulfonic acid



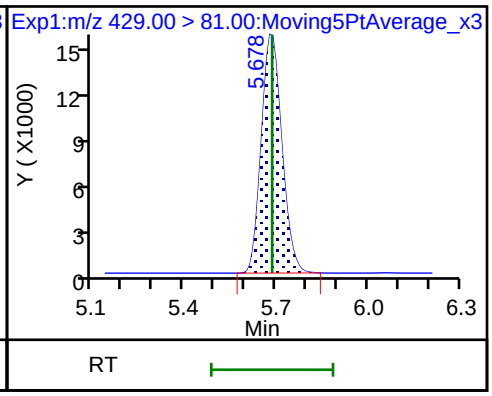
34 6:2 FTS



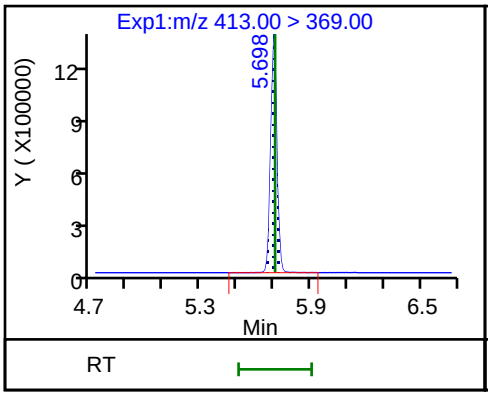
34 6:2 FTS



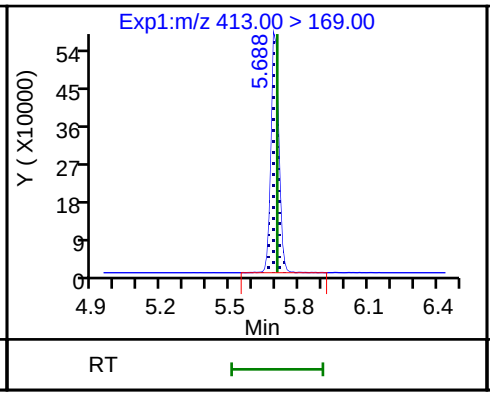
D 35 M2-6:2 FTS



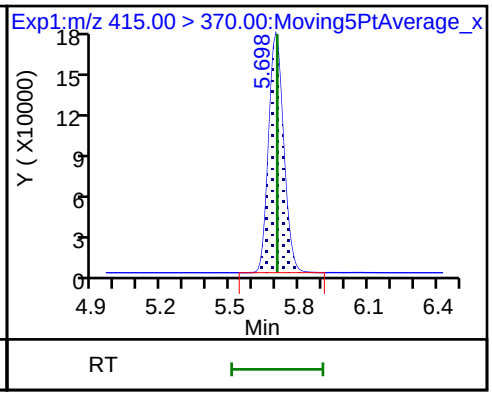
40 Perfluorooctanoic acid



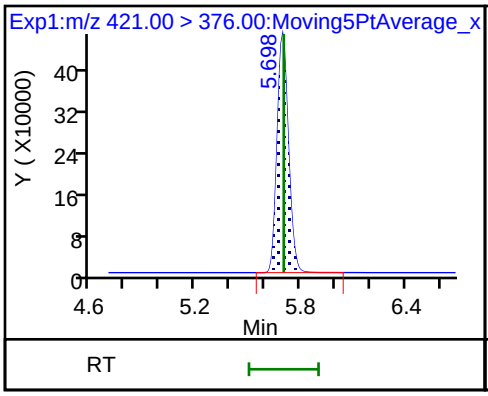
40 Perfluorooctanoic acid



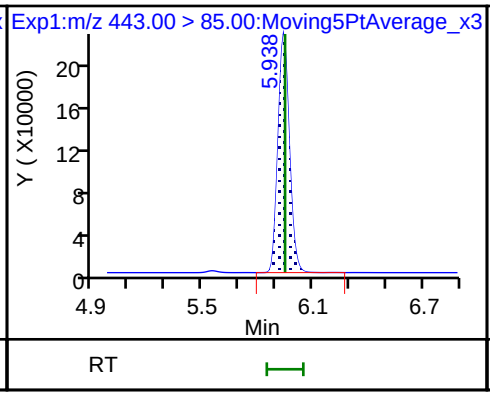
* 38 13C2 PFOA



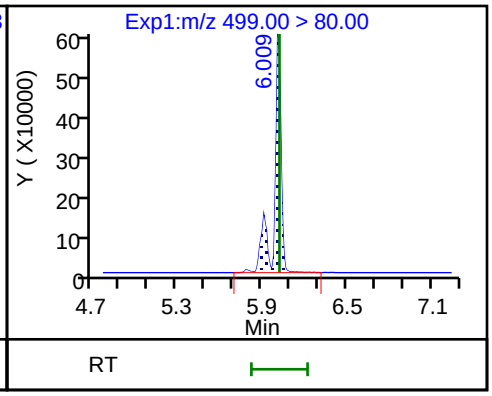
D 37 13C8 PFOA



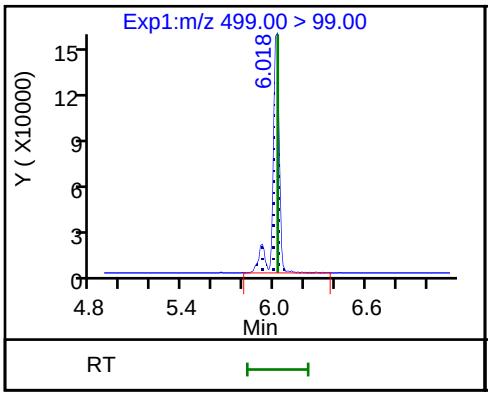
101 TAF



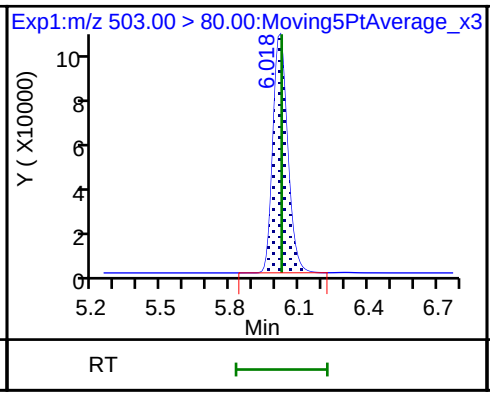
43 Perfluorooctanesulfonic acid



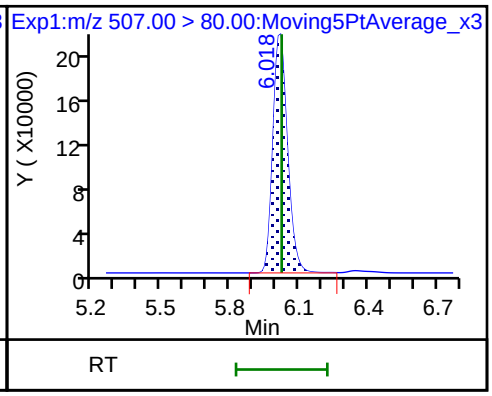
43 Perfluorooctanesulfonic acid



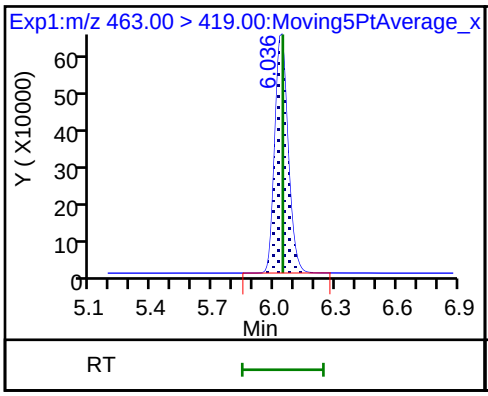
* 42 13C4 PFOS



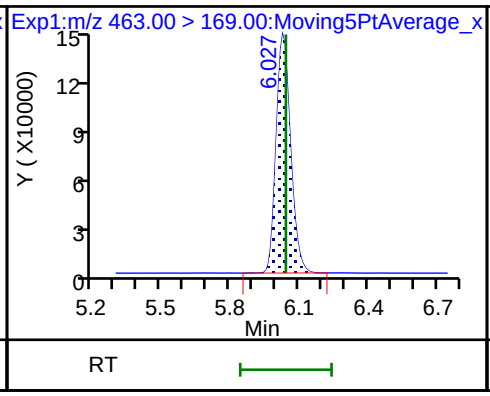
D 41 13C8 PFOS



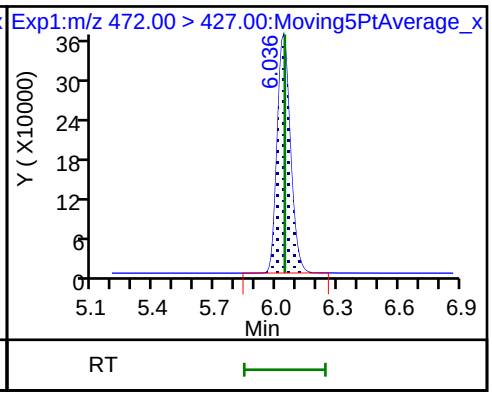
44 Perfluorononanoic acid



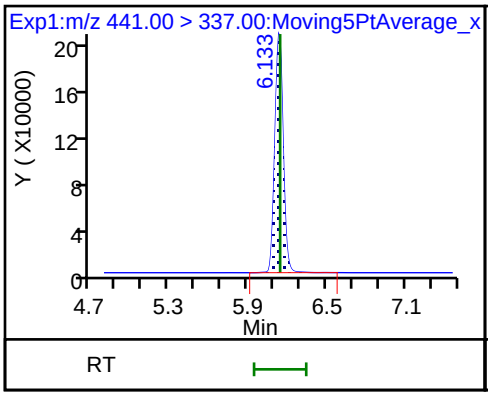
44 Perfluorononanoic acid



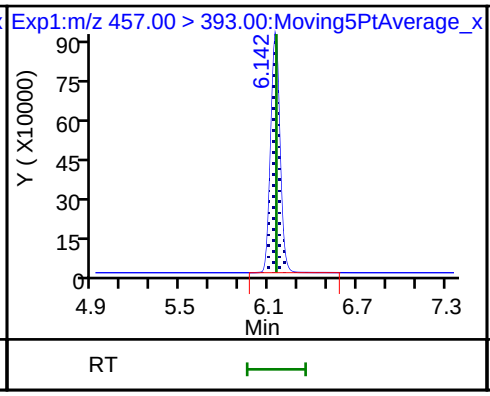
D 45 13C9 PFNA



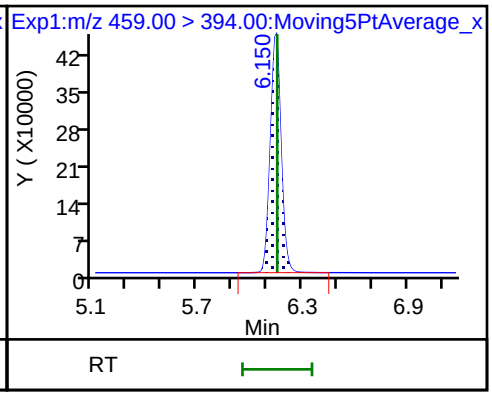
46 7:3 FTCA



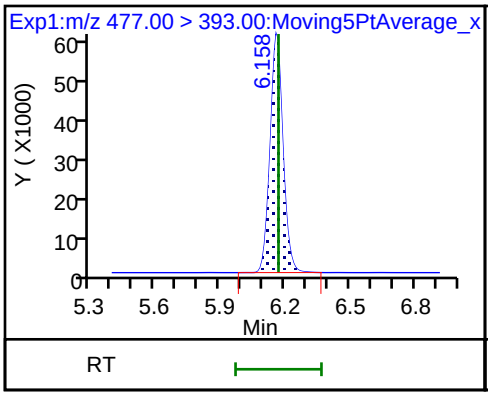
47 8:2 FTUCA



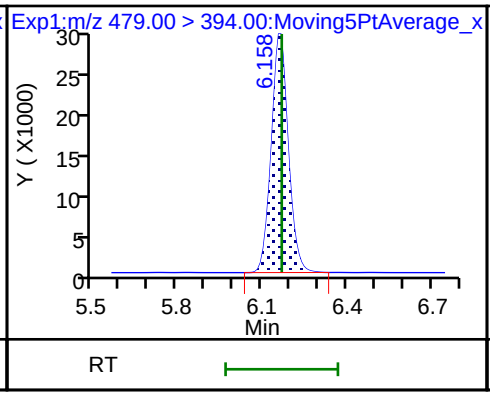
D 48 13C-8:2 FTUCA



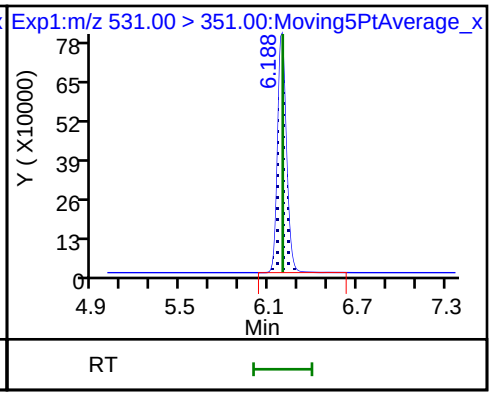
49 8:2 FTCA



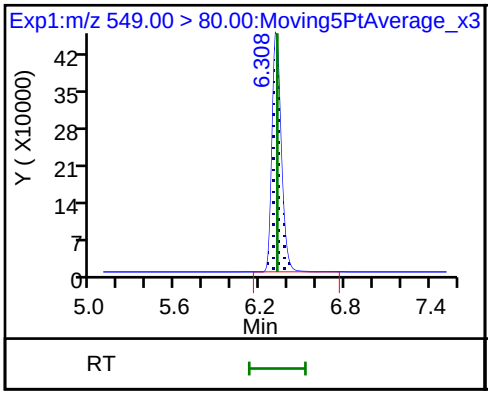
D 50 13C-8:2 FTCA



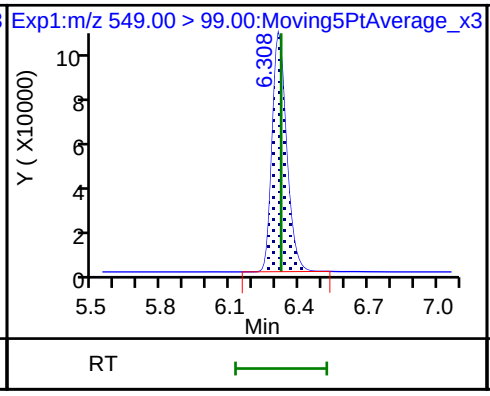
51 9ClFOS



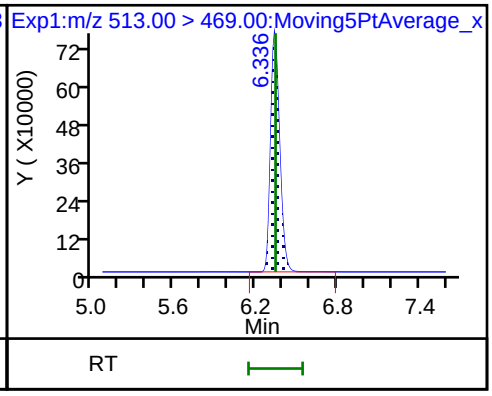
52 Perfluorononanesulfonic acid



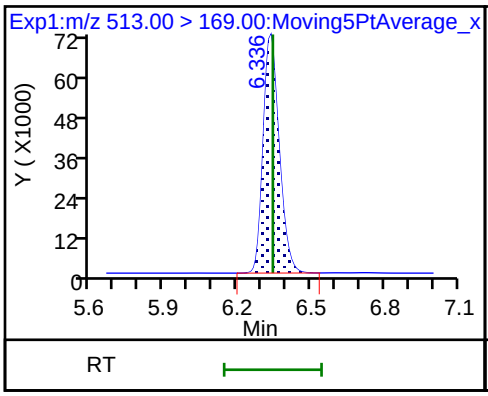
52 Perfluorononanesulfonic acid



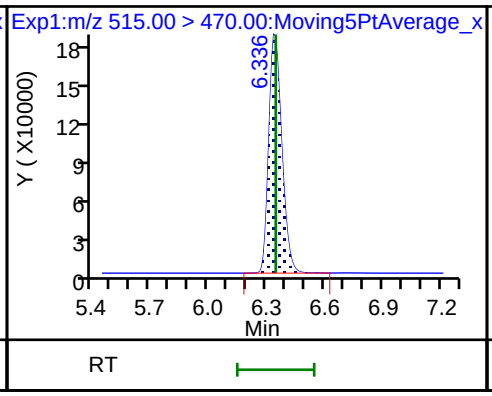
53 Perfluorodecanoic acid



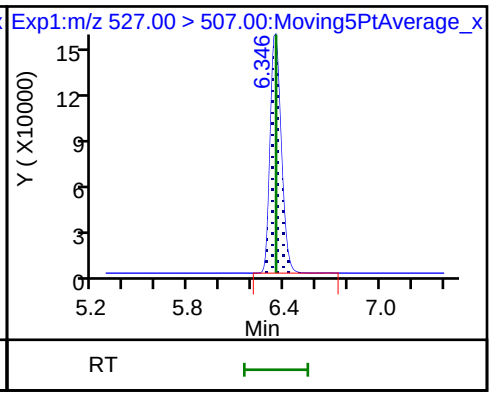
53 Perfluorodecanoic acid



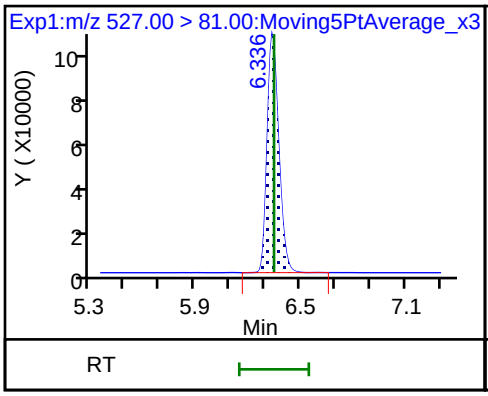
* 55 13C2 PFDA



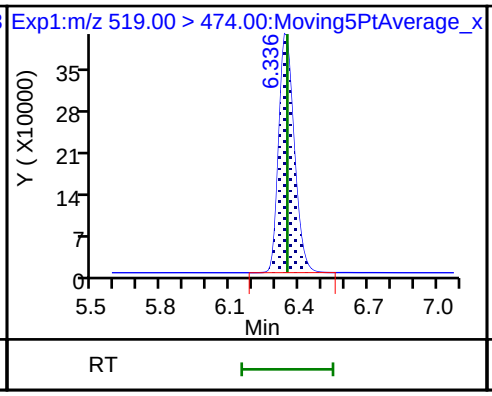
56 8:2 FTS



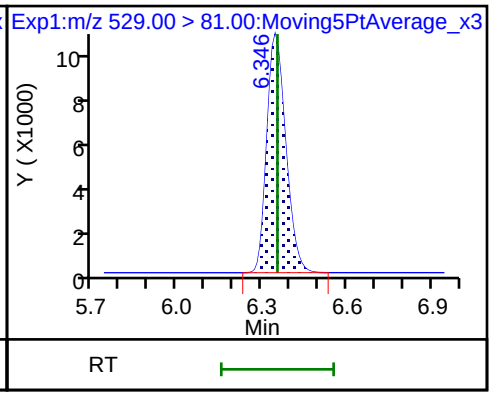
56 8:2 FTS



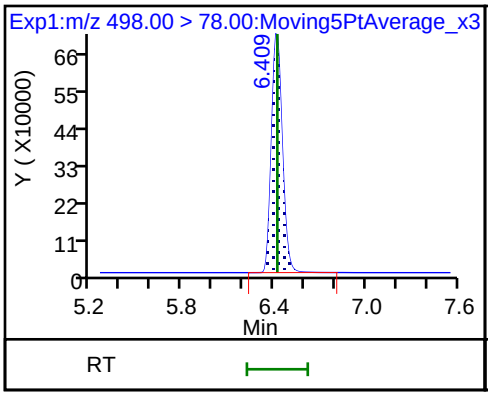
D 54 13C6 PFDA



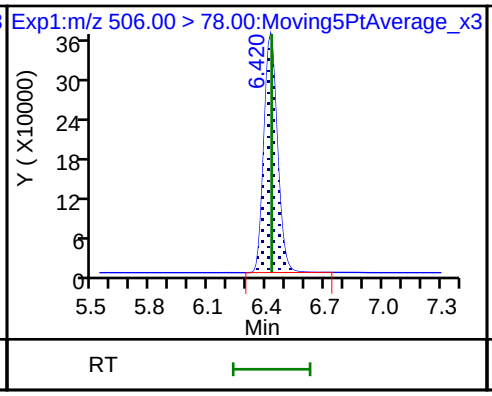
D 57 M2-8:2 FTS



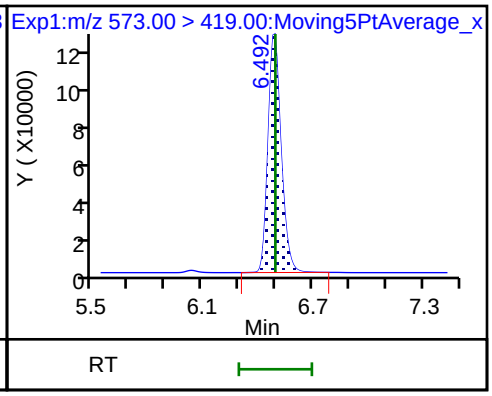
58 Perfluorooctanesulfonamide



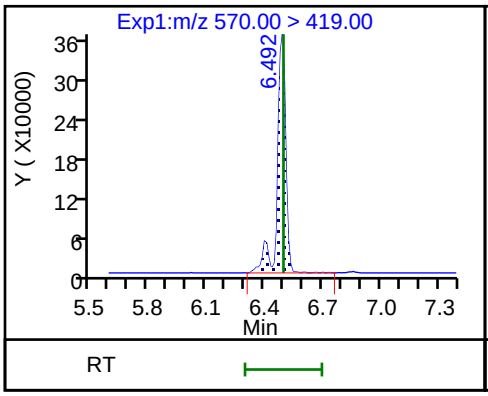
D 59 13C8 FOSA



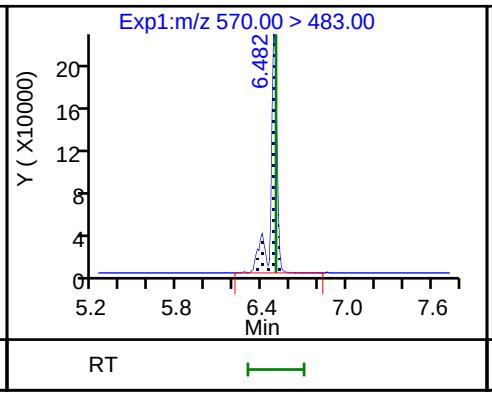
D 61 d3-NMeFOSAA



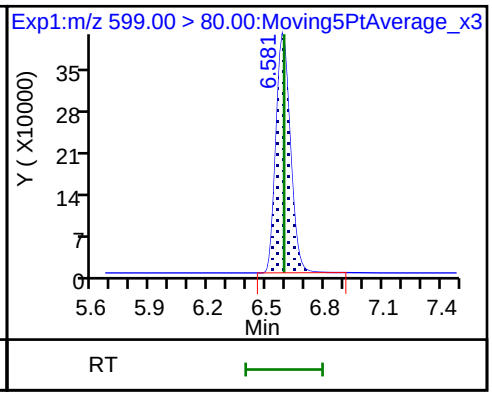
60 NMeFOSAA



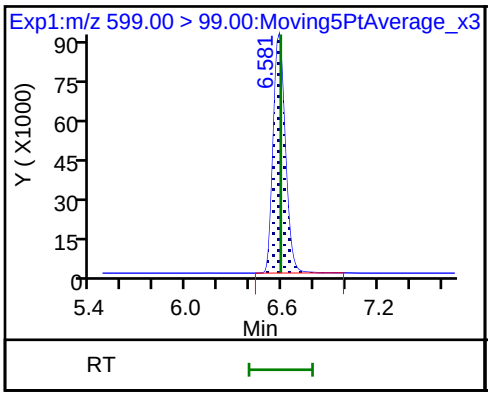
60 NMeFOSAA



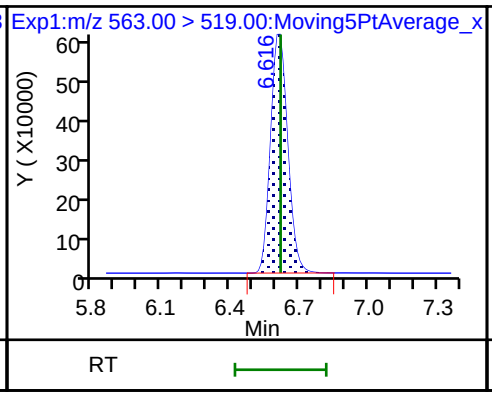
62 Perfluorodecanesulfonic acid



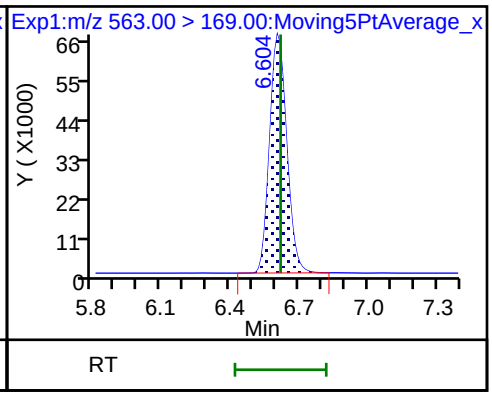
62 Perfluorodecanesulfonic acid



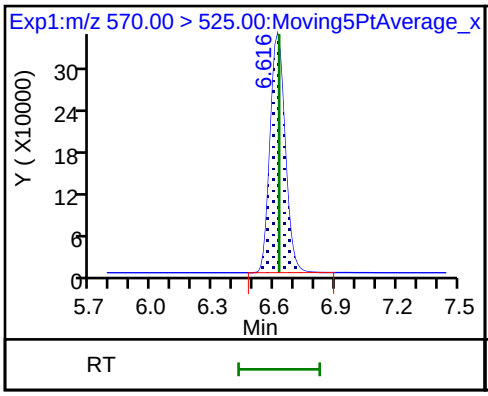
63 Perfluoroundecanoic acid



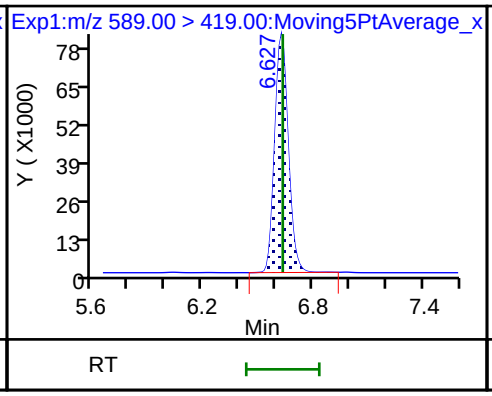
63 Perfluoroundecanoic acid



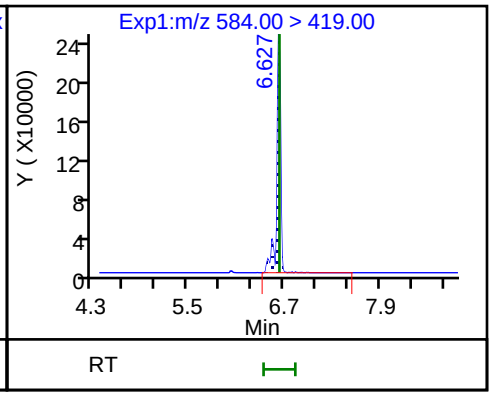
D 65 13C7 PFUnA



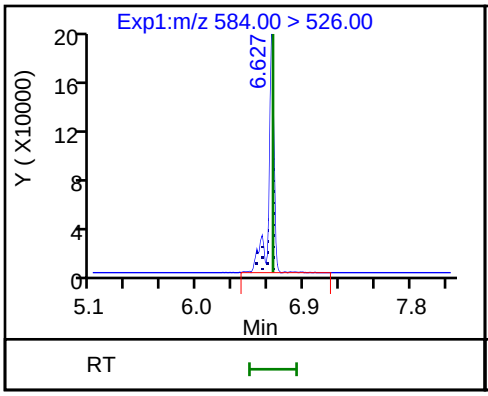
D 66 d5-NEtFOSAA



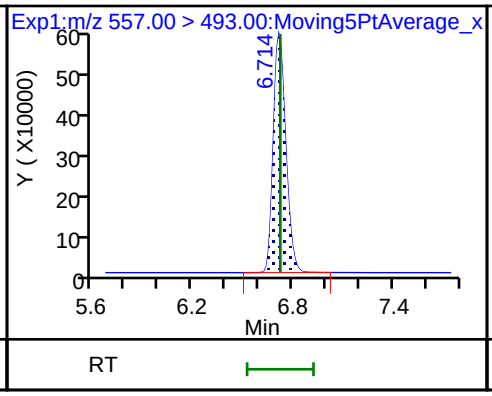
67 NEtFOSAA



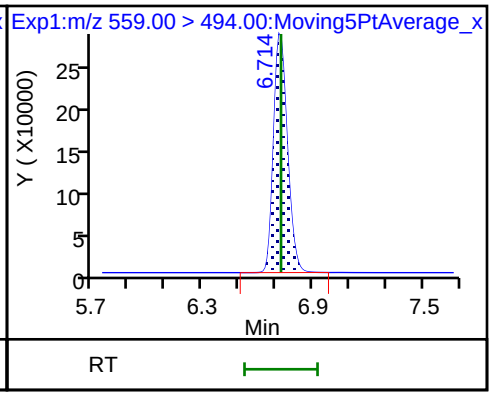
67 NEtFOSAA



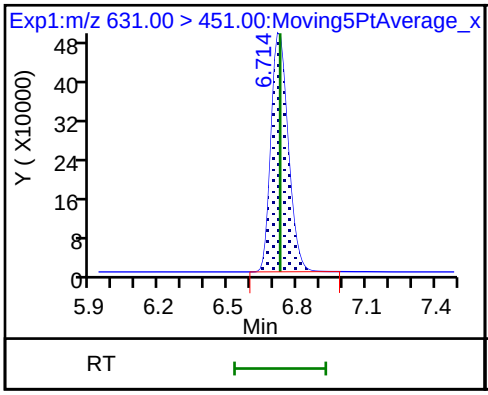
68 10:2 FTUCA



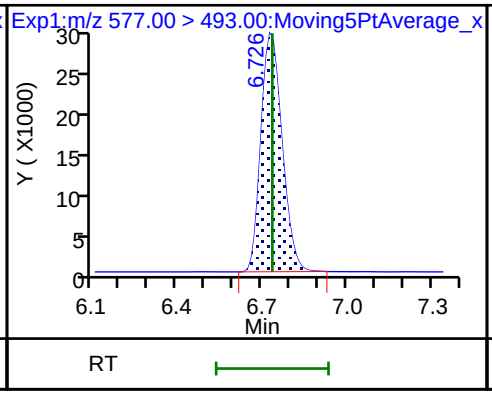
D 70 13C-10:2 FTUCA



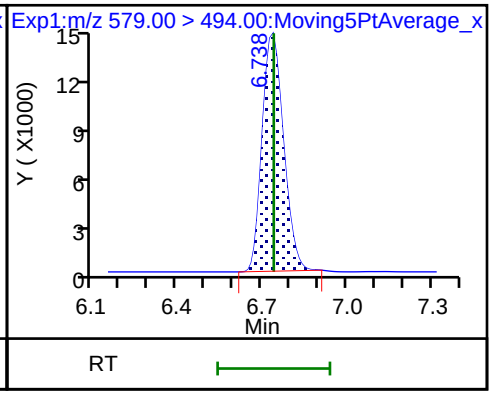
69 11ClFOS



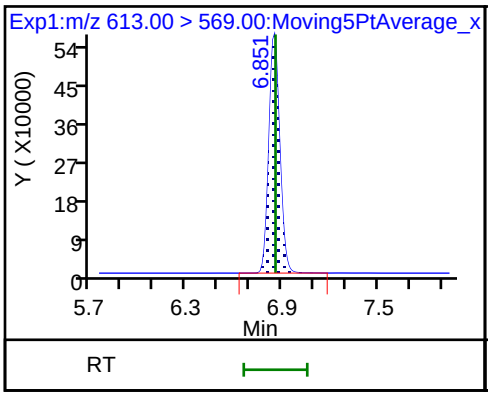
71 10:2 FTCA



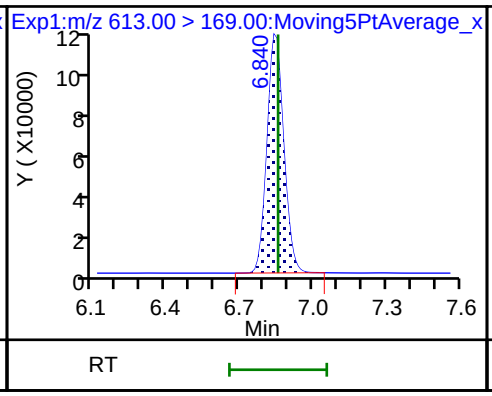
D 72 13C-10:2 FTCA



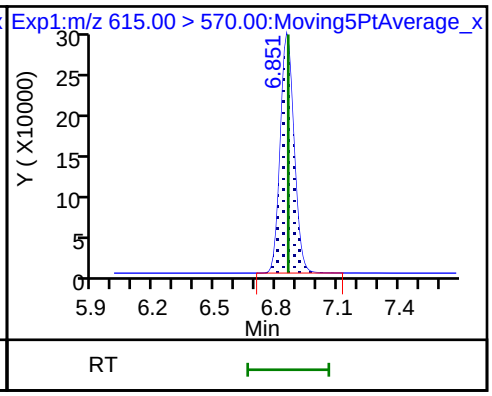
73 Perfluorododecanoic acid



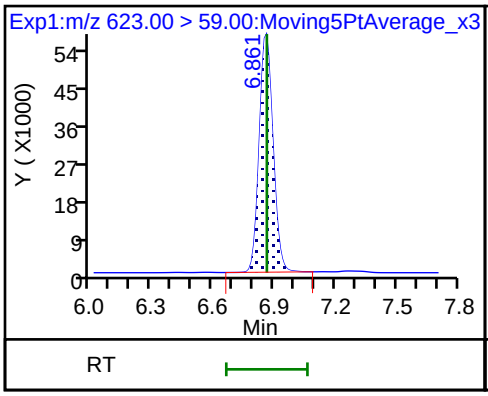
73 Perfluorododecanoic acid



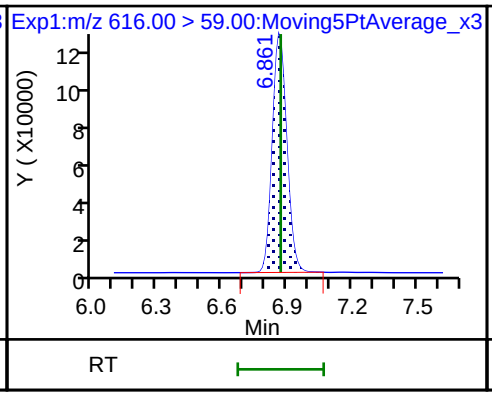
D 74 13C2-PFDoDA



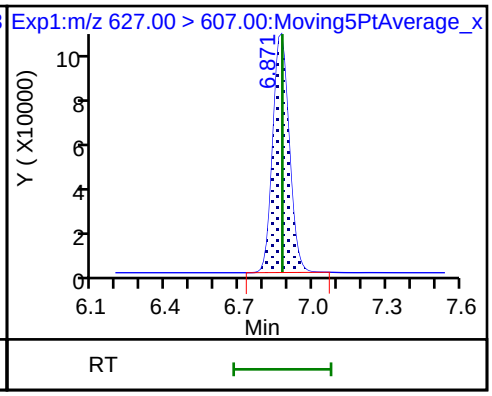
D 76 d7-N-MeFOSE-M



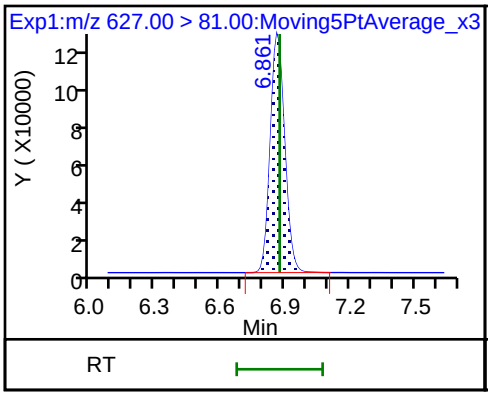
77 N-MeFOSE-M



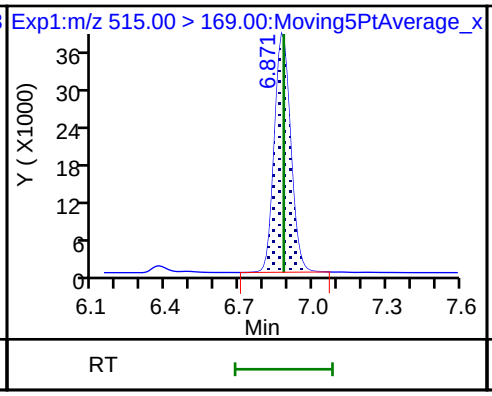
75 10:2 FTS



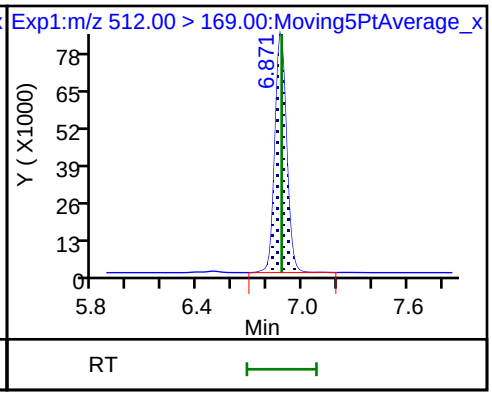
75 10:2 FTS



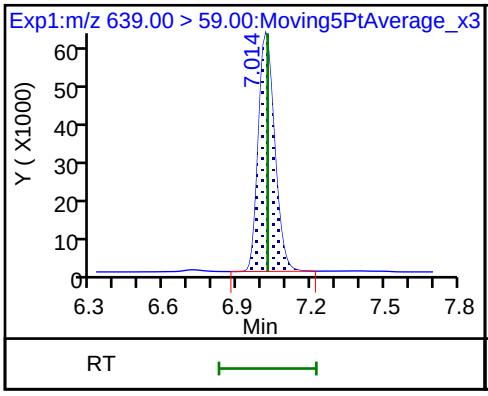
D 79 d3-NMePFOSA



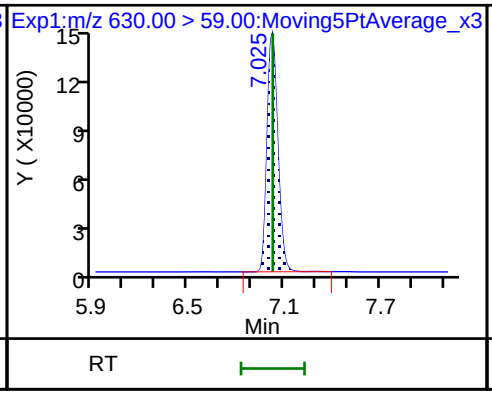
78 NMeFOSA



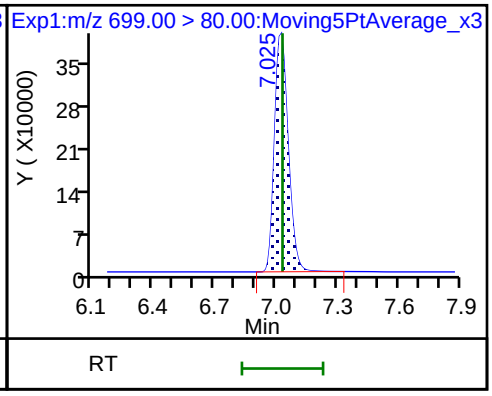
D 81 d9-N-EtFOSE-M



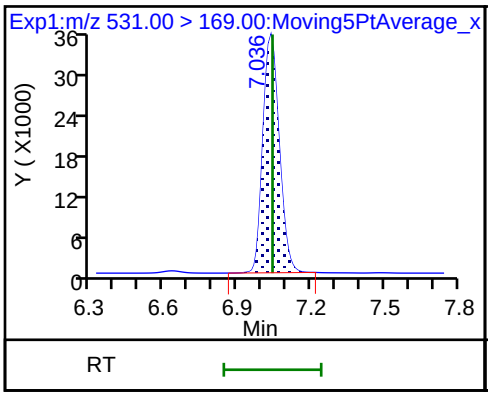
82 N-EtFOSE-M



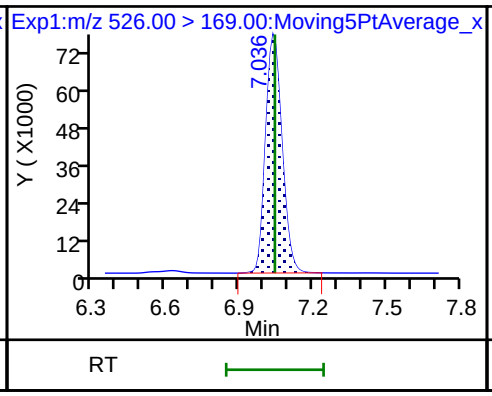
80 PFDoS



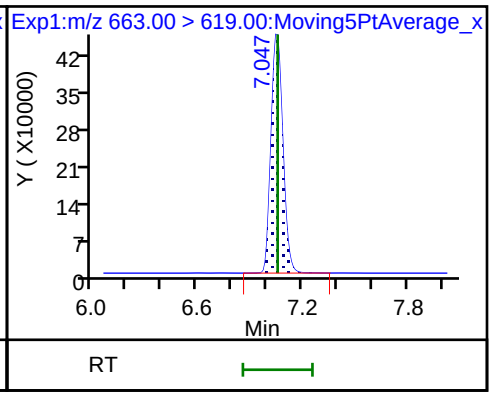
D 83 d5-NEtPFOSA



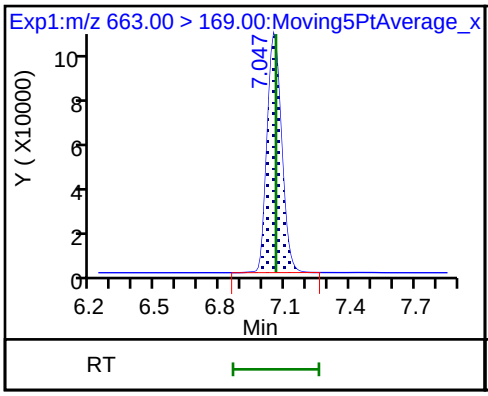
84 N-EtFOSA-M



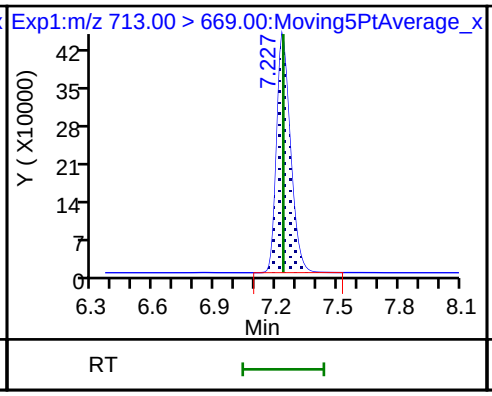
85 Perfluorotridecanoic acid



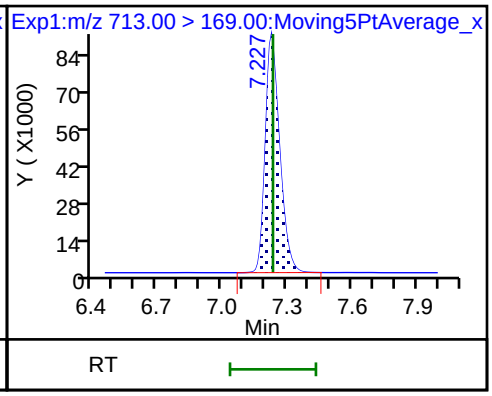
85 Perfluorotridecanoic acid



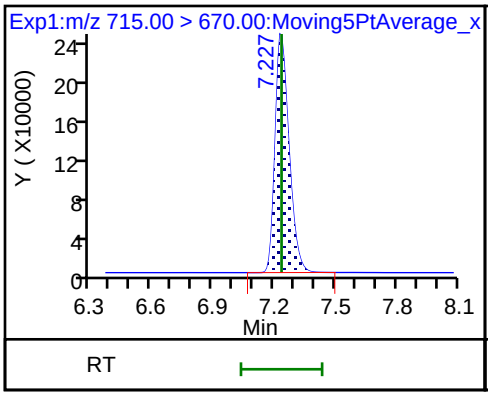
86 Perfluorotetradecanoic acid



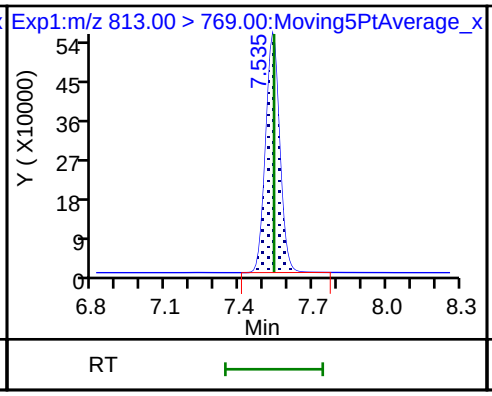
86 Perfluorotetradecanoic acid



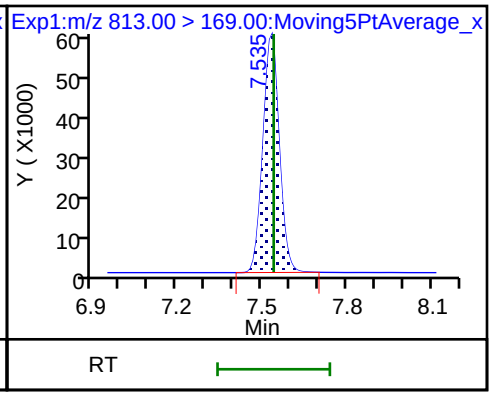
D 87 13C2 PFTeDA



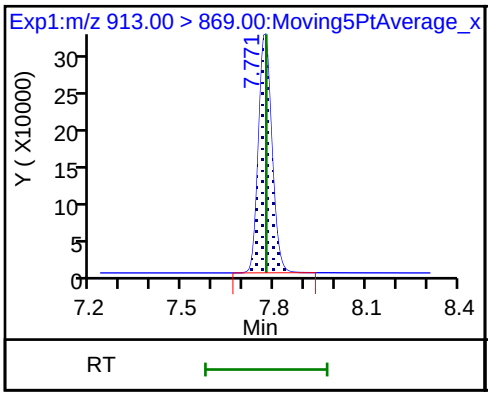
88 Perfluorohexadecanoic acid



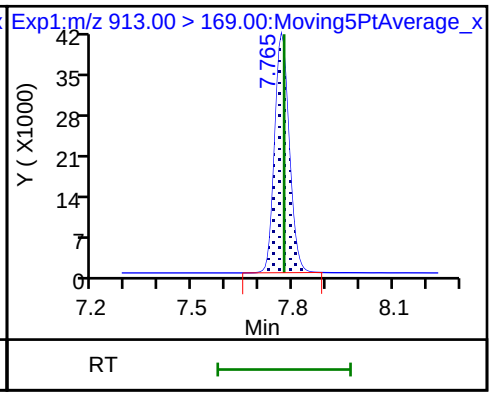
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Peak Asymmetry Report

Eurofins Lancaster Laboratories Env, LLC

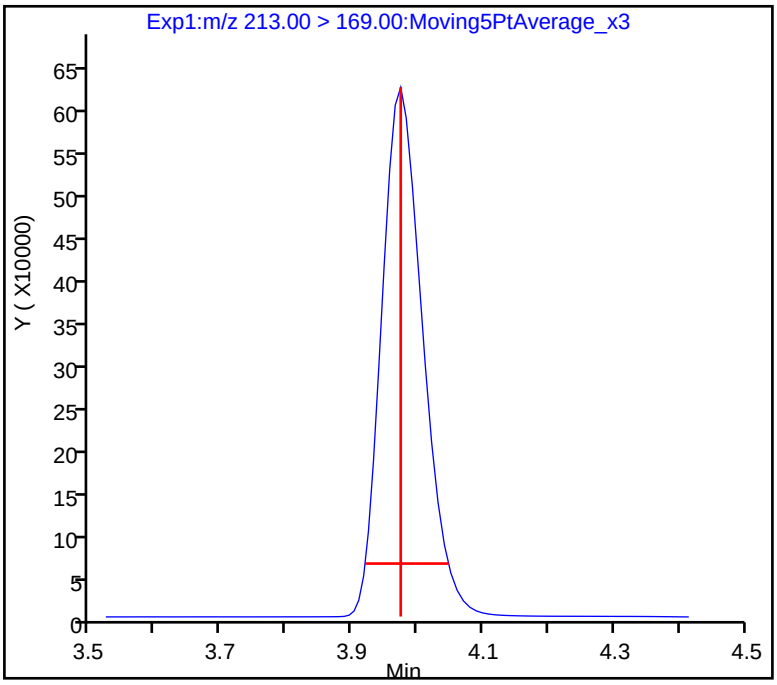
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-05.d				
Injection Date:	22-Feb-2022 15:56:27	Instrument ID:	30733		
Lims ID:	ICISAV CAL5				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20006	Worklist Smp#:	5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		

2 Perfluorobutanoic acid, Detector: EXP1

Peak Asymmetry =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.073 (min.)
Front Width = 0.055 (min.)

Asymmetry = 1.3



Peak Asymmetry Report

Eurofins Lancaster Laboratories Env, LLC

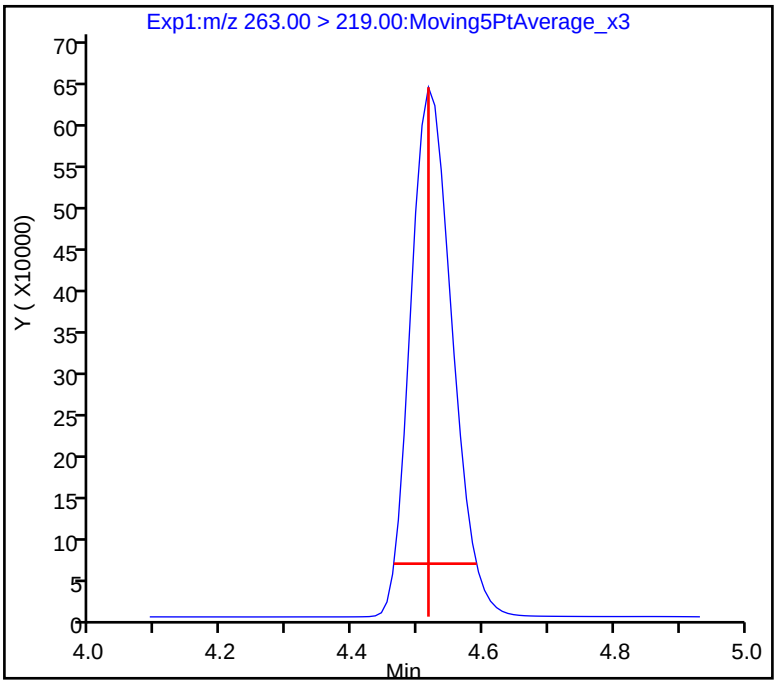
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-05.d				
Injection Date:	22-Feb-2022 15:56:27	Instrument ID:	30733		
Lims ID:	ICISAV CAL5				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20006	Worklist Smp#:	5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		

7 Perfluoropentanoic acid, Detector: EXP1

Peak Asymmetry =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.074 (min.)
Front Width = 0.053 (min.)

Asymmetry = 1.4



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

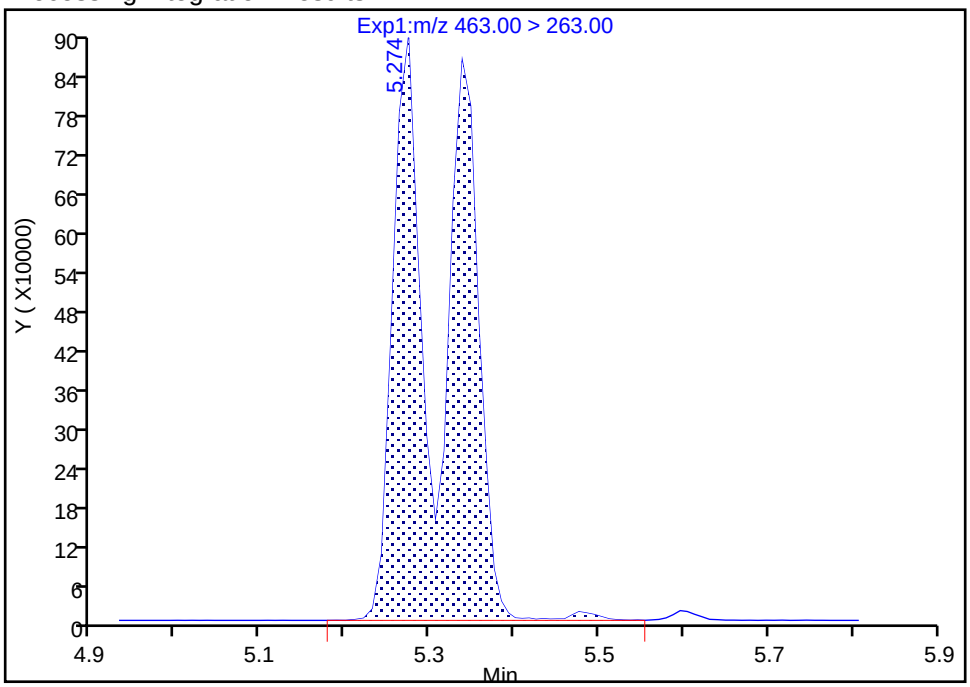
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-05.d				
Injection Date:	22-Feb-2022 15:56:27	Instrument ID:	30733		
Lims ID:	ICISAV CAL5				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20006	Worklist Smp#:	5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

106 Hydro-PS Acid, CAS: 749836-20-2

Signal: 1

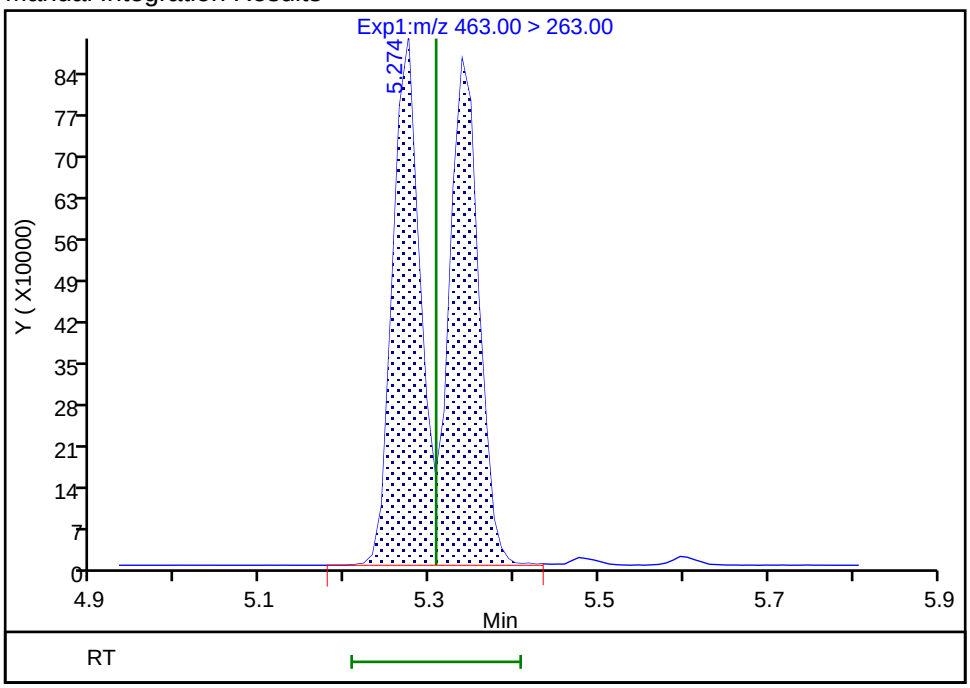
Processing Integration Results

RT: 5.27
Area: 4099227
Amount: 19.208624
Amount Units: ng/ml



Manual Integration Results

RT: 5.27
Area: 4068861
Amount: 18.587195
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:53:13

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

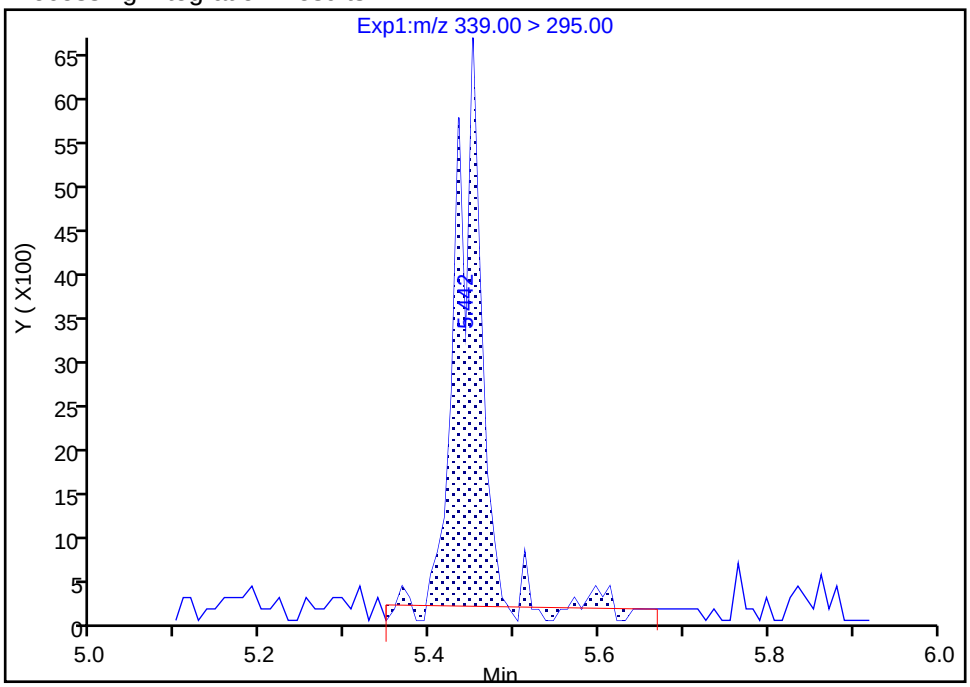
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-05.d				
Injection Date:	22-Feb-2022 15:56:27	Instrument ID:	30733		
Lims ID:	ICISAV CAL5				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20006	Worklist Smp#:	5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

28 5:3 FTCA, CAS: 914637-49-3

Signal: 2

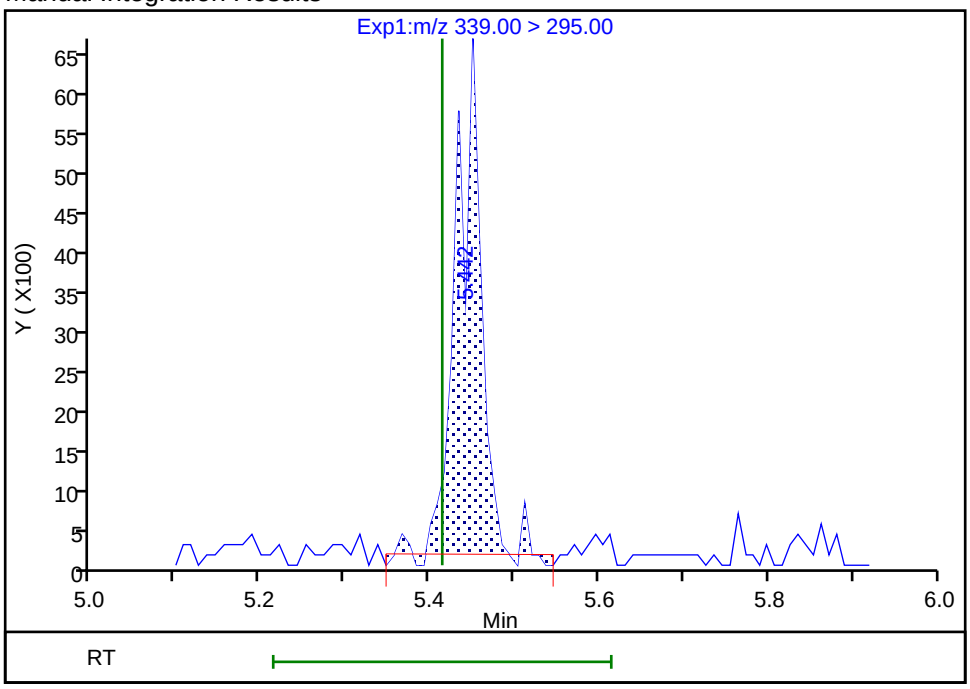
Processing Integration Results

RT: 5.44
Area: 13296
Amount: 19.038565
Amount Units: ng/ml



Manual Integration Results

RT: 5.44
Area: 13289
Amount: 19.011977
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:53:38

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-06.d
Lims ID: IC CAL6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Feb-2022 16:07:31 ALS Bottle#: 20007 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL6
Misc. Info.: Plate: 1 Rack: 1 410-0050930-006
Operator ID: US19_USR_INS20260 Instrument ID: 30733
Sublist: chrom-PFAS_30733_XList_2*sub1

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 10:06:40 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1604

First Level Reviewer: fellenbauma Date: 22-Feb-2022 20:55:10
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										
175.00 > 97.00	1.477	1.481	-0.004	0.372	520859	55.9		112	372	
1 PPF Acid										
163.00 > 119.00	1.837	1.838	-0.001	0.462	3883089	51.9		104	17108	
96 PFMOAA										
179.00 > 85.00	2.946	2.948	-0.002	0.742	2374615	52.0		104	13274	
100 R-PSDA										
441.00 > 241.00	3.947	3.955	-0.008	0.863	167874	50.3		101	11991	
99 R-EVE										
405.00 > 217.00	3.947	3.957	-0.010	0.994	566092	48.4		96.7	29940	
105 Hydrolyzed PSDA										
439.00 > 343.00	3.964	3.972	-0.008	0.867	857218	51.1		102	39951	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.972	3.977	-0.005	1.000	6864337	48.0		96.0	92349	
* 4 13C3-PFBA										
216.00 > 172.00	3.972	3.979	-0.007		700066	5.00			1842	
D 3 13C4 PFBA										
217.00 > 172.00	3.972	3.977	-0.005	1.000	1517458	9.74		97.4	85924	
102 PMPA										
229.00 > 185.00	4.098	4.105	-0.007	1.032	3406536	51.5		103	90796	
5 PFPrS										
249.00 > 99.00	4.160	4.165	-0.005	1.047	1601116	46.0		100	113082	
103 NVHOS										
297.00 > 135.00	4.191	4.199	-0.008	0.917	1557079	50.8		102	107886	
6 PFECA F										
229.00 > 85.00	4.212	4.225	-0.013	1.060	6638284	48.7		97.5	16569	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 PFO2HxA										
245.00 > 85.00	4.402	4.411	-0.009	1.108	2321316	50.5		101	94625	
7 Perfluoropentanoic acid										
263.00 > 219.00	4.514	4.522	-0.008	0.998	6956566	49.6		99.3	111691	
9 3:3 FTCA										
241.00 > 177.00	4.514	4.525	-0.011	0.998	438028	48.4		96.8	31890	
D 8 13C5 PFPeA										
268.00 > 223.00	4.524	4.529	-0.005	1.139	1350864	10.0		100	75084	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.572	4.579	-0.007	1.000	4833290	42.0	Target=3.22	94.9	123195	
299.00 > 99.00	4.572	4.579	-0.007	1.000	1586383		3.05(1.61-4.83)	94.9	72340	
D 11 13C3 PFBS										
302.00 > 80.00	4.572	4.580	-0.008	1.151	1001189	9.40		100	76453	
91 PEPA										
279.00 > 235.00	4.627	4.635	-0.008	1.165	1363962	48.9		97.9	53843	
12 PFECA A										
279.00 > 85.00	4.653	4.658	-0.005	1.018	5359965	52.4		105	160940	
13 PES										
315.00 > 135.00	4.739	4.746	-0.007	1.037	15907585	44.7		100	996034	
14 PFECA B										
201.00 > 85.00	4.869	4.877	-0.008	1.065	6221300	49.6	Target=1.44	99.1	4585	
295.00 > 201.00	4.869	4.877	-0.008	1.065	4366641		1.42(0.72-2.15)	99.1	318333	
15 4:2 FTS										
327.00 > 307.00	4.898	4.907	-0.009	1.000	2487891	47.3	Target=1.53	101	182483	
327.00 > 81.00	4.898	4.907	-0.009	1.000	1469223		1.69(0.77-2.30)	101	106960	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.898	4.907	-0.009	0.860	157745	7.60		81.4	11276	
D 19 13C5 PFHxA										
318.00 > 273.00	4.939	4.948	-0.009	0.867	1603805	9.94		99.4	113814	
17 Perfluorohexanoic acid										
313.00 > 269.00	4.939	4.946	-0.007	1.000	6451903	48.0	Target=16.07	95.9	106218	
313.00 > 119.00	4.929	4.946	-0.017	0.998	441196		14.62(8.04-24.11)	95.9	31121	
$ 18 13C2 PFHxA										
315.00 > 270.00	4.939	4.948	-0.009	0.867	1232843	NC			87544	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.960	4.961	-0.001	1.085	4798585	47.5	Target=3.46	101	258061	
349.00 > 99.00	4.950	4.961	-0.011	1.083	1301617		3.69(1.73-5.19)	101	93396	
93 PFO3OA										
311.00 > 85.00	4.999	5.005	-0.006	1.259	2209365	51.0		102	123270	
21 HFPO-DA										
329.00 > 285.00	5.062	5.074	-0.012	0.998	2156577	49.0		98.0	82826	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.071	5.077	-0.006	0.890	230025	9.69		96.9	18017	
97 Hydro-EVE Acid										
427.00 > 283.00	5.284	5.286	-0.002	1.330	9566306	49.9		99.7	4037	
106 Hydro-PS Acid										M
463.00 > 263.00	5.337	5.307	0.030	1.167	10305892	51.2		102	78784	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
94 R-PSDCA										
397.00 > 217.00	5.284	5.289	-0.005	1.156	13141350	51.6		103	546068	
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.326	5.335	-0.009	1.000	8058148	49.3	Target=3.65	98.5	571009	
363.00 > 169.00	5.326	5.335	-0.009	1.000	2325306		3.47(1.82-5.47)	98.5	123615	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.326	5.335	-0.009	1.000	4771437	45.8	Target=3.59	101	13335	
399.00 > 99.00	5.326	5.335	-0.009	1.000	1395958		3.42(1.79-5.38)	101	2966	
D 24 13C4 PFHpA										
367.00 > 322.00	5.326	5.336	-0.010	0.935	1618817	9.01		90.1	86289	
D 25 13C3 PFHxS										
402.00 > 80.00	5.326	5.335	-0.009	0.935	905967	9.08		96.0	65198	
27 DONA										
377.00 > 251.00	5.374	5.381	-0.007	1.009	10682085	51.8		110	828459	
98 PFECA G										
379.00 > 185.00	5.391	5.399	-0.008	1.357	10858710	49.4		98.8	648075	
28 5:3 FTCA										
341.00 > 237.00	5.408	5.414	-0.006	1.015	1701411	52.1	Target=50.84	104	134383	
339.00 > 295.00	5.441	5.414	0.027	1.022	32708		52.02(25.42-76.26)	104	955	
29 6:2 FTUCA										
357.00 > 293.00	5.432	5.438	-0.006	1.000	9884862	48.9		97.9	773304	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.432	5.439	-0.007	0.954	1486378	9.57		95.7	70803	
32 6:2 FTCA										
377.00 > 293.00	5.449	5.456	-0.007	1.000	672012	51.2		102	31886	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.449	5.456	-0.007	0.957	124425	8.73		87.3	9854	
95 PFO4DA										
377.00 > 85.00	5.502	5.513	-0.011	1.385	2611676	52.0		104	797	
104 PS Acid										
443.00 > 147.00	5.544	5.552	-0.008	1.213	3316559	51.9		104	270948	
90 EVE Acid										
407.00 > 263.00	5.569	5.573	-0.004	1.402	7289540	49.7		99.4	173099	
33 PFECHS										
461.00 > 381.00	5.638	5.640	-0.002	1.058	8763004	51.5	Target=1.94	111	650112	
461.00 > 99.00	5.628	5.640	-0.012	1.057	4675619		1.87(0.97-2.91)	111	265999	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.676	5.685	-0.009	1.066	4716234	48.5	Target=3.50	102	343355	
449.00 > 99.00	5.676	5.685	-0.009	1.066	1345734		3.50(1.75-5.24)	102	74601	
34 6:2 FTS										
427.00 > 407.00	5.676	5.685	-0.009	1.000	1513501	42.5	Target=1.31	89.7	110799	
427.00 > 81.00	5.676	5.685	-0.009	1.000	1065164		1.42(0.65-1.96)	89.7	57948	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.676	5.686	-0.010	0.997	74976	8.74		92.0	5504	
$ 39 13C4 PFOA										
417.00 > 372.00	5.695	5.704	-0.009	1.000	1798108	NC			99574	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 38 13C2 PFOA										
415.00 > 370.00	5.695	5.704	-0.009		746980	5.00			55650	
D 37 13C8 PFOA										
421.00 > 376.00	5.695	5.704	-0.009	1.000	1805759	9.12		91.2	132866	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.695	5.704	-0.009	1.000	6950759	50.3	Target=2.48	101	1435545	
413.00 > 169.00	5.695	5.704	-0.009	1.000	2909835		2.39(1.24-3.72)	101	4018	
101 TAF										
443.00 > 85.00	5.944	5.947	-0.003	1.496	2273561	50.8		102	28554	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00	6.014	6.022	-0.008	1.000	4949639	47.5	Target=4.38	103	2922	
499.00 > 99.00	6.014	6.022	-0.008	1.000	1134448		4.36(2.19-6.57)	103	2094	
* 42 13C4 PFOS										
503.00 > 80.00	6.014	6.023	-0.009		484180	4.78			37203	
D 41 13C8 PFOS										
507.00 > 80.00	6.014	6.023	-0.009	1.000	934557	9.15		95.7	11935	
44 Perfluorononanoic acid										
463.00 > 419.00	6.032	6.041	-0.009	1.000	7231462	50.3	Target=4.84	101	204881	
463.00 > 169.00	6.023	6.041	-0.018	0.998	1528033		4.73(2.42-7.25)	101	115111	
D 45 13C9 PFNA										
472.00 > 427.00	6.032	6.041	-0.009	1.003	1553276	9.14		91.4	87975	
46 7:3 FTCA										
441.00 > 337.00	6.137	6.144	-0.007	1.126	2091270	51.0		102	95400	
47 8:2 FTUCA										
457.00 > 393.00	6.146	6.150	-0.004	1.000	8871365	46.4		92.7	228773	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.146	6.155	-0.009	0.969	1795371	9.08		90.8	105555	
49 8:2 FTCA										
477.00 > 393.00	6.162	6.169	-0.007	1.000	556496	50.6		101	44424	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.162	6.169	-0.007	0.972	117239	8.85		88.5	9505	
51 9ClFOS										
531.00 > 351.00	6.185	6.193	-0.008	1.028	9289655	52.3		112	779340	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.313	6.321	-0.008	1.050	4663793	47.8	Target=4.28	99.5	262076	
549.00 > 99.00	6.313	6.321	-0.008	1.050	1127719		4.14(2.14-6.42)	99.5	63540	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.332	6.344	-0.012	0.998	7549234	43.2	Target=10.44	86.4	402754	
513.00 > 169.00	6.332	6.344	-0.012	0.998	765678		9.86(5.22-15.66)	86.4	42066	
* 55 13C2 PFDA										
515.00 > 470.00	6.341	6.346	-0.005		896735	5.00			64783	
D 54 13C6 PFDA										
519.00 > 474.00	6.341	6.348	-0.007	1.000	1784531	10.0		99.9	128884	
56 8:2 FTS										
527.00 > 507.00	6.341	6.348	-0.007	1.000	1509668	41.8	Target=1.54	87.3	107528	
527.00 > 81.00	6.341	6.348	-0.007	1.000	1024434		1.47(0.77-2.31)	87.3	73043	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 57 M2-8:2 FTS										
529.00 > 81.00	6.341	6.354	-0.013	1.000	44746	9.19		96.0	3192	
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.416	6.419	-0.003	1.000	8093417	46.4		92.8	334285	
D 59 13C8 FOSA										
506.00 > 78.00	6.416	6.425	-0.009	1.012	1736020	10.3		103	72020	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.488	6.494	-0.006	1.023	635767	10.6		106	14534	
60 NMeFOSAA										
570.00 > 419.00	6.488	6.497	-0.009	1.000	2692052	51.4	Target=1.64	103	4008	
570.00 > 483.00	6.488	6.497	-0.009	1.000	1393412		1.93(0.82-2.46)	103	1477	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.588	6.590	-0.002	1.095	4842940	47.7	Target=4.07	99.1	310022	
599.00 > 99.00	6.576	6.590	-0.014	1.093	1260295		3.84(2.03-6.10)	99.1	82460	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.611	6.618	-0.007	1.000	7312986	51.2	Target=8.63	102	241585	
563.00 > 169.00	6.611	6.618	-0.007	1.000	825535		8.86(4.31-12.94)	102	53345	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.611	6.623	-0.012	1.161	1404052	NC			68819	
D 65 13C7 PFUnA										
570.00 > 525.00	6.611	6.623	-0.012	1.042	1616465	9.32		93.2	79275	
67 NEtFOSAA										
584.00 > 419.00	6.634	6.638	-0.004	1.002	1847083	56.1	Target=1.31	112	357416	
584.00 > 526.00	6.622	6.638	-0.016	1.000	1247413		1.48(0.66-1.97)	112	1781	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.622	6.635	-0.013	1.044	368937	8.76		87.6	24161	
68 10:2 FTUCA										
557.00 > 493.00	6.720	6.723	-0.003	1.000	7313920	48.3		96.5	352566	
69 11ClFOS										
631.00 > 451.00	6.720	6.725	-0.005	1.117	6401509	49.1		106	315576	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.720	6.725	-0.005	1.060	1482276	9.92		99.2	96040	
71 10:2 FTCA										
577.00 > 493.00	6.732	6.735	-0.003	1.000	325399	49.1		98.3	21006	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.732	6.741	-0.009	1.062	75674	10.2		102	4852	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.844	6.857	-0.013	0.999	6249929	48.3	Target=5.13	96.6	133516	
613.00 > 169.00	6.844	6.857	-0.013	0.999	1255909		4.98(2.56-7.69)	96.6	89518	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.855	6.858	-0.003	1.081	1271625	9.89		98.9	68571	
77 N-MeFOSE-M										
616.00 > 59.00	6.865	6.870	-0.005	1.001	1416548	47.9		95.9	43811	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.855	6.863	-0.008	1.081	276568	10.3		103	8523	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
75 10:2 FTS										
627.00 > 607.00	6.865	6.874	-0.009	1.083	1094993	45.7	Target=0.83	94.9	78897	
627.00 > 81.00	6.865	6.874	-0.009	1.083	1403767		0.78(0.42-1.25)	94.9	101648	
78 NMeFOSA										
512.00 > 169.00	6.875	6.880	-0.005	1.000	926392	44.4		88.8	22291	
D 79 d3-NMePFOSA										
515.00 > 169.00	6.875	6.880	-0.005	1.084	185843	10.8		108	5110	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.018	7.022	-0.004	1.107	321176	10.5		105	7718	
82 N-EtFOSE-M										
630.00 > 59.00	7.018	7.027	-0.009	1.000	1586124	47.5		94.9	68184	
80 PFDoS										
699.00 > 80.00	7.018	7.030	-0.012	1.167	4607936	49.3		102	124851	
84 N-EtFOSA-M										
526.00 > 169.00	7.040	7.044	-0.004	1.000	853441	48.3		96.7	20401	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.040	7.042	-0.002	1.110	166758	10.2		102	8992	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.050	7.057	-0.007	1.029	4333818	45.6	Target=4.34	91.3	117753	
663.00 > 169.00	7.050	7.057	-0.007	1.029	1089416		3.98(2.17-6.51)	91.3	58903	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.230	7.234	-0.004	1.000	5086908	47.0	Target=5.08	94.0	137969	
713.00 > 169.00	7.230	7.234	-0.004	1.000	1008679		5.04(2.54-7.61)	94.0	54959	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.230	7.235	-0.005	1.140	1179607	10.9		109	63795	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.537	7.540	-0.003	1.042	5130977	42.4	Target=9.01	84.7	115522	
813.00 > 169.00	7.528	7.540	-0.012	1.041	588682		8.72(4.50-13.51)	84.7	36297	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.766	7.773	-0.007	1.074	2355715	46.8	Target=7.79	93.5	98462	
913.00 > 169.00	7.766	7.773	-0.007	1.074	307857		7.65(3.89-11.68)	93.5	25505	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD6_00013 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 10:06:41 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-06.d

Injection Date: 22-Feb-2022 16:07:31 Instrument ID: 30733

Lims ID: IC CAL6

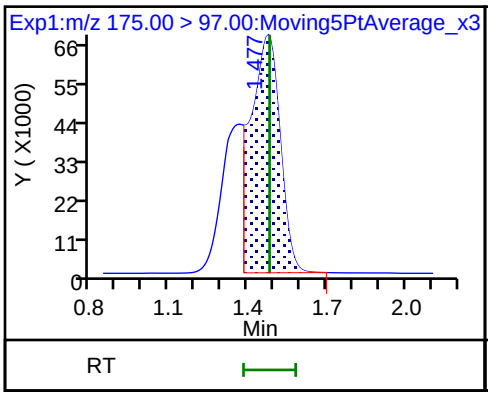
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20007 Worklist Smp#: 6

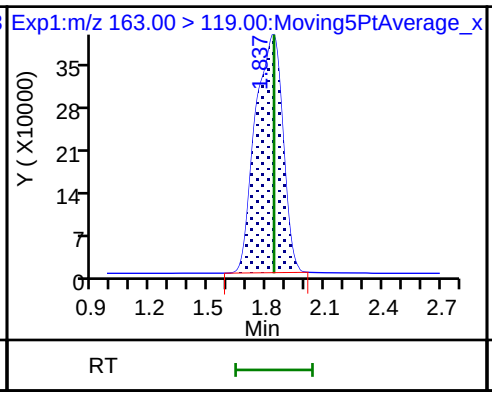
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

107 MTP



1 PPF Acid



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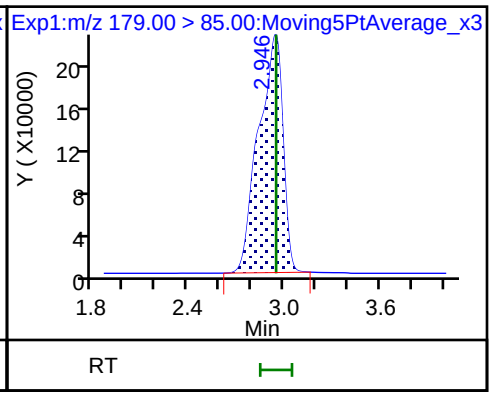

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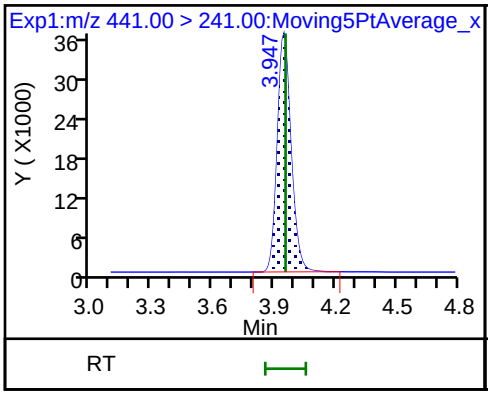
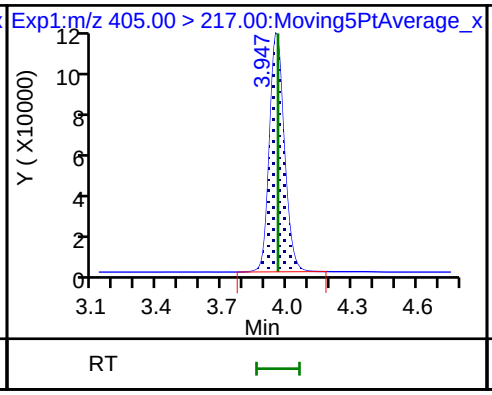


99 R-EVE



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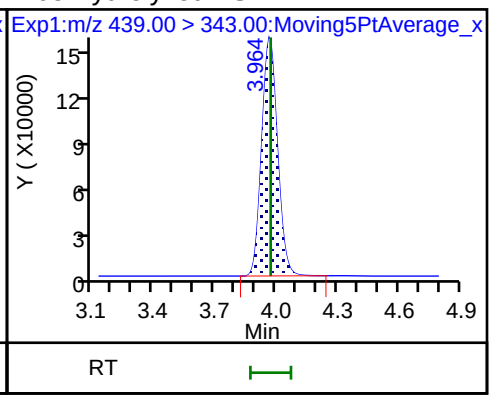
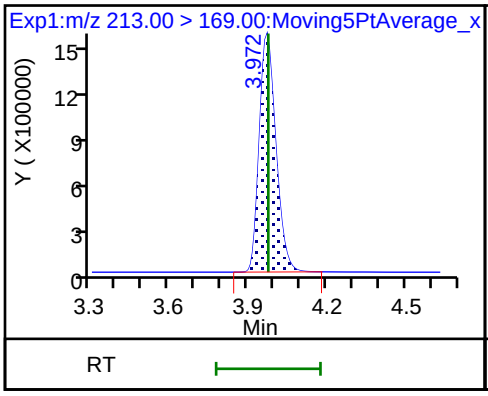
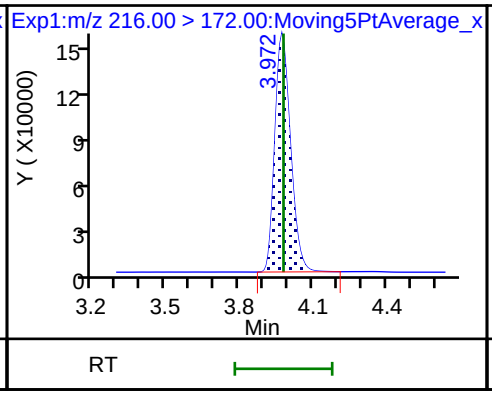


2 Perfluorobutanoic acid



* 4 13C3-PFBA



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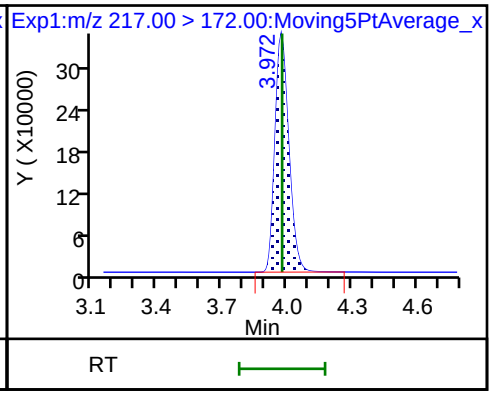

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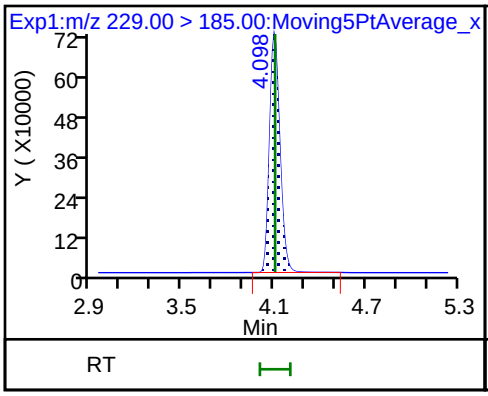

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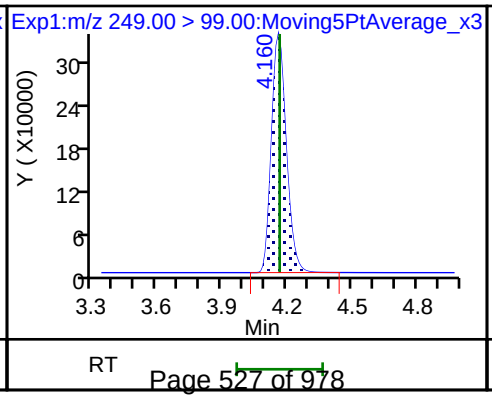

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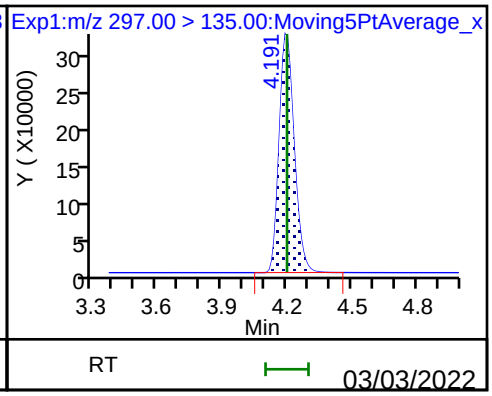
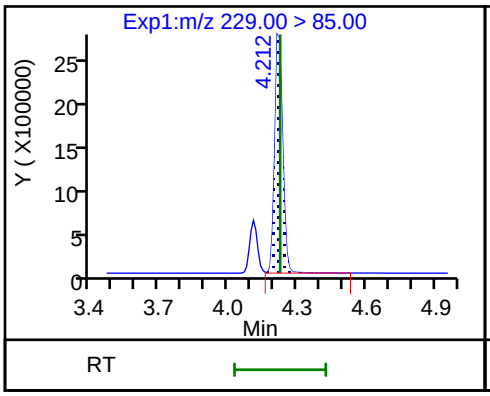
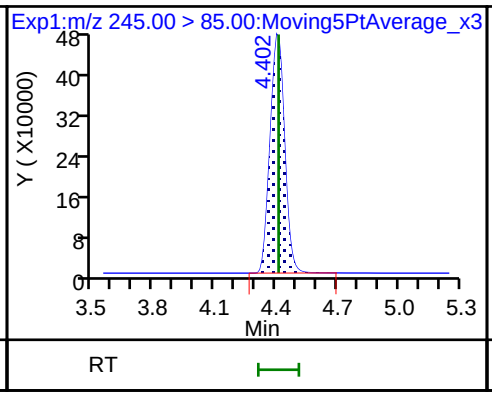


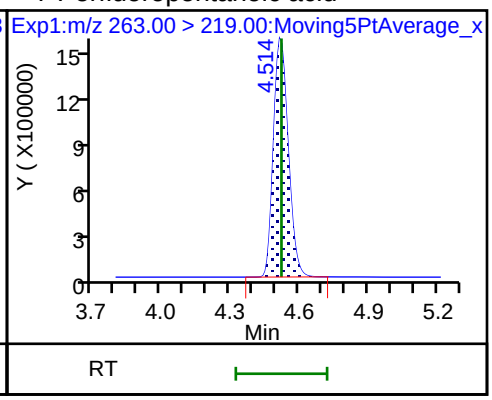
6 PFECA F



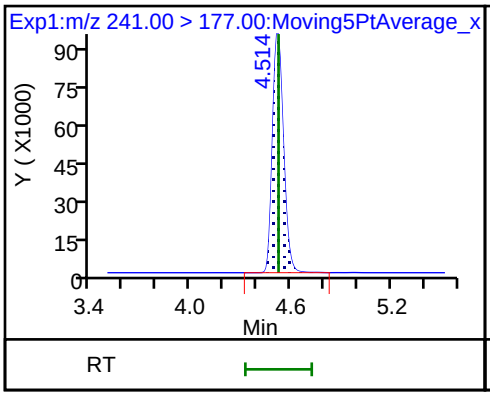
92 PFO2HxA



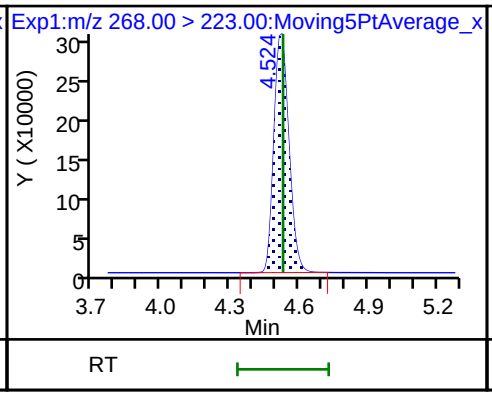
7 Perfluoropentanoic acid



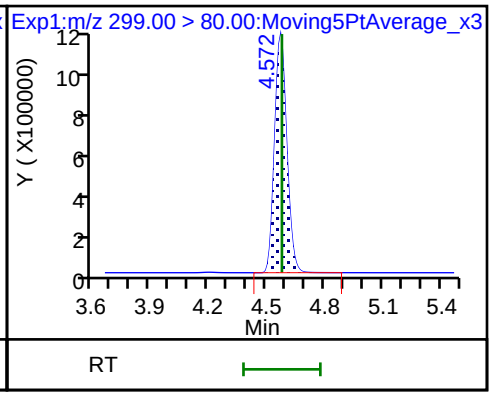
9 3:3 FTCA



D 8 13C5 PFPeA



10 Perfluorobutanesulfonic acid



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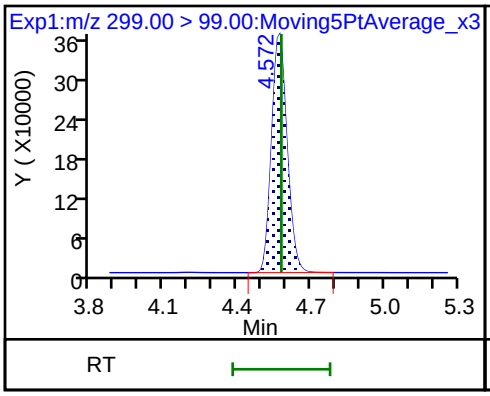

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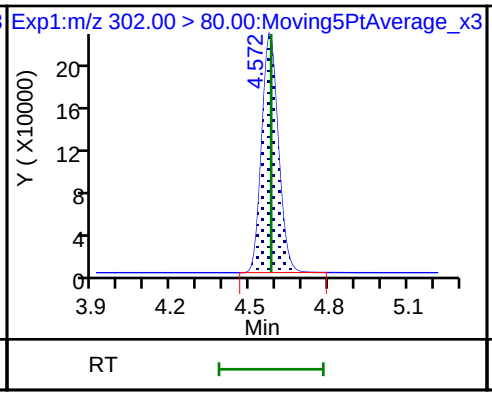

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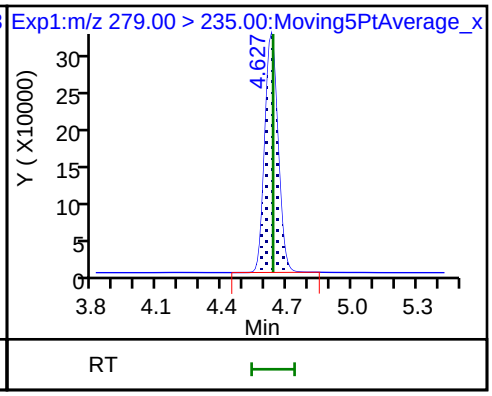
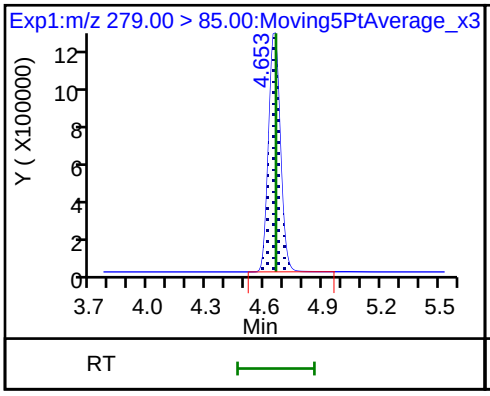
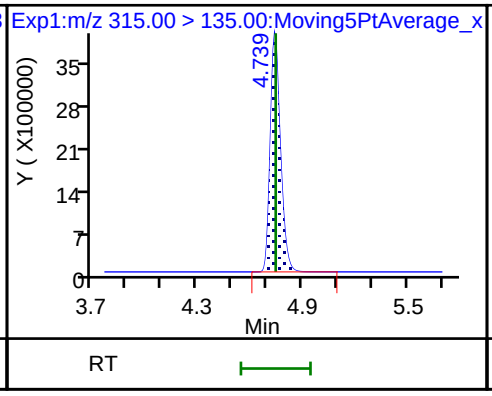


12 PFECA A



13 PES



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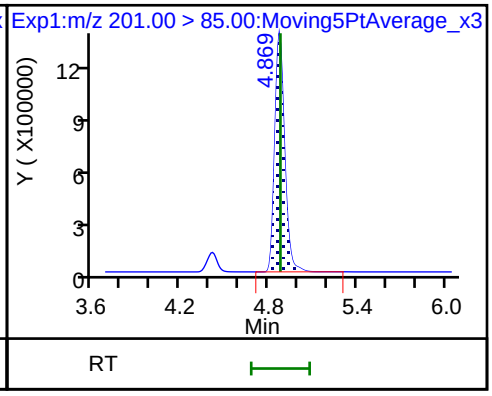

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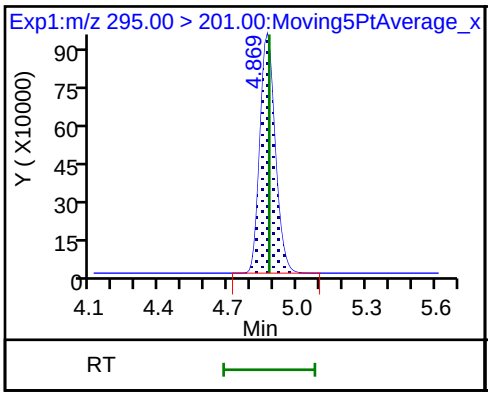
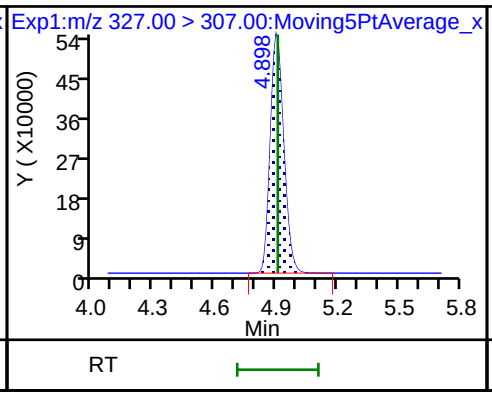


15 4:2 FTS



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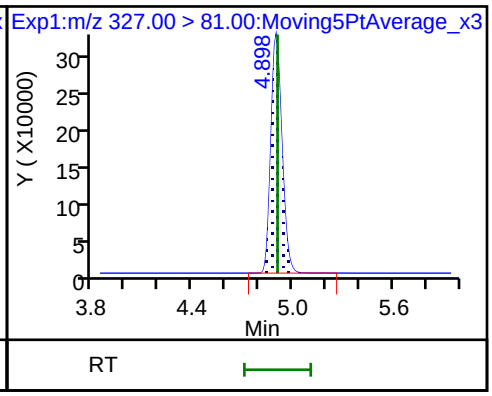

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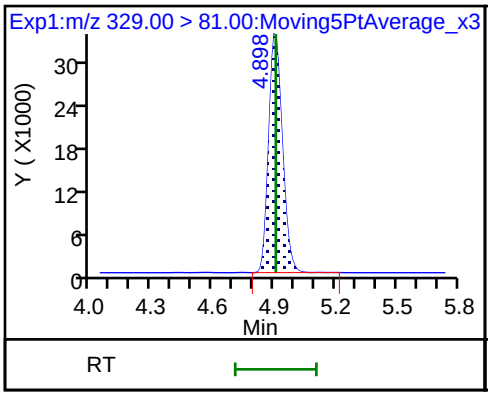
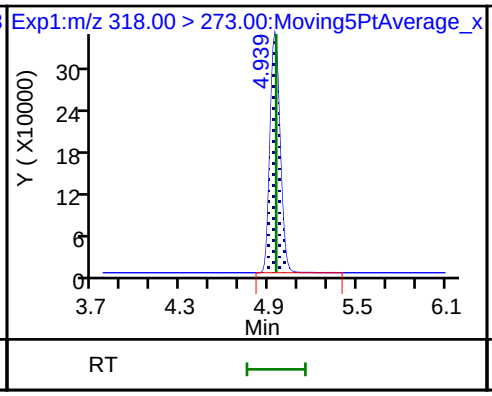
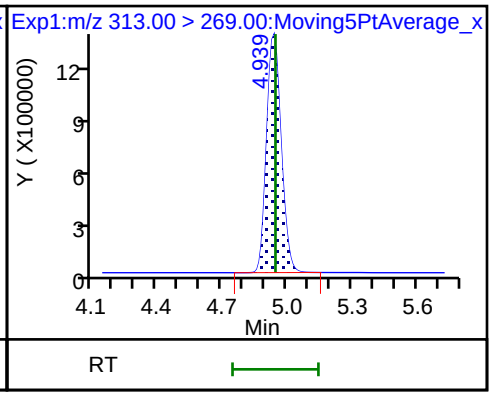


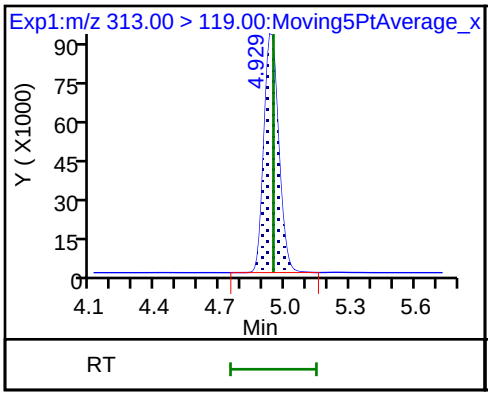
D 19 13C5 PFHxA



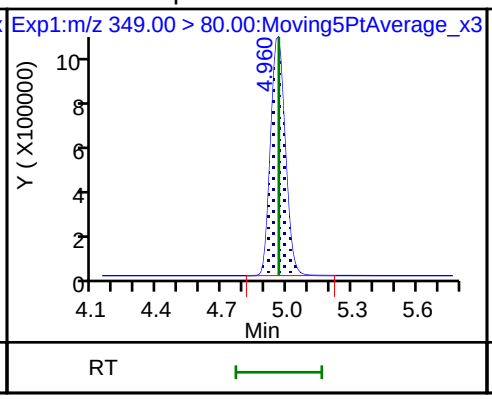
17 Perfluorohexanoic acid



17 Perfluorohexanoic acid



20 Perfluoropentanesulfonic acid



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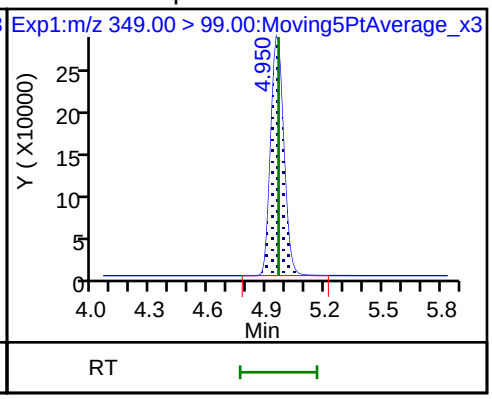
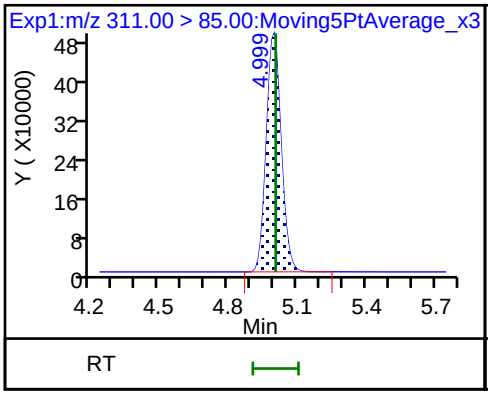
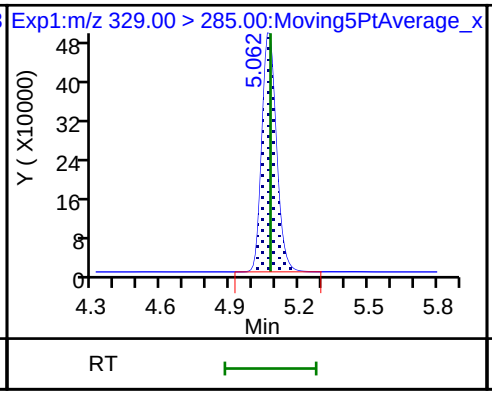


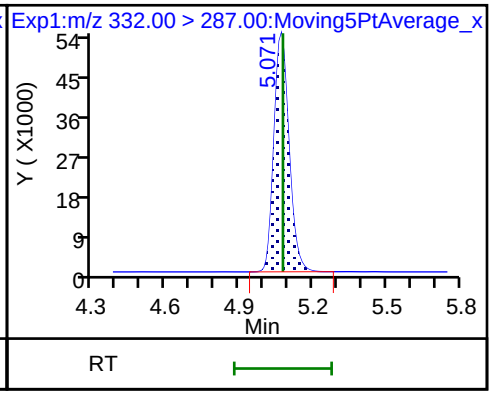
93 PFO3OA



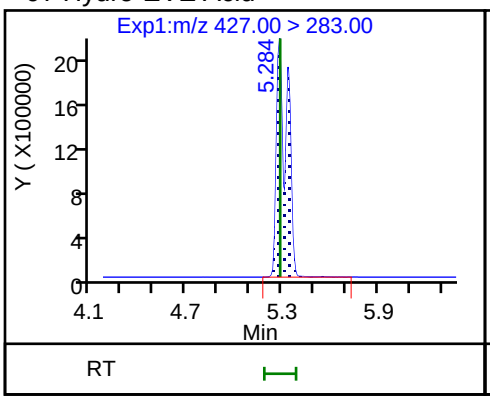
21 HFPO-DA



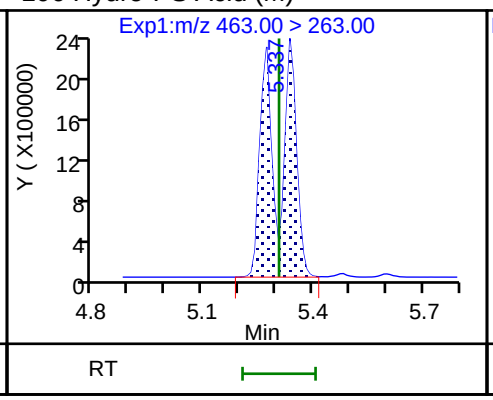
D 22 13C3 HFPO-DA



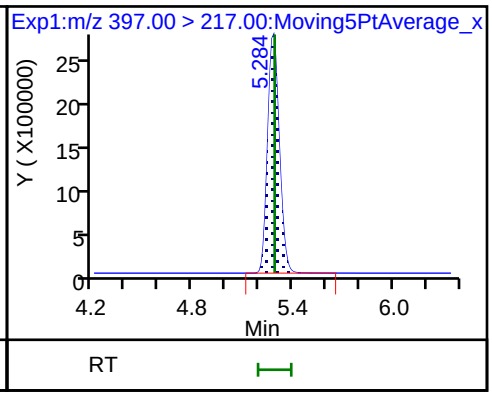
97 Hydro-EVE Acid



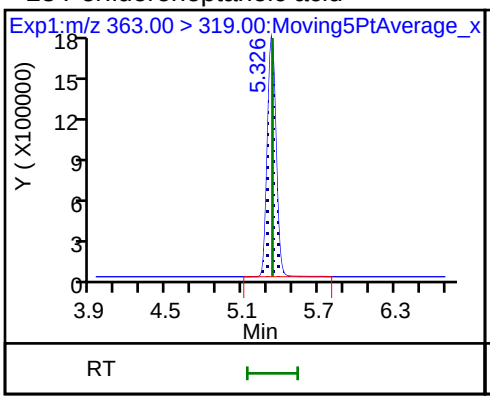
106 Hydro-PS Acid (M)



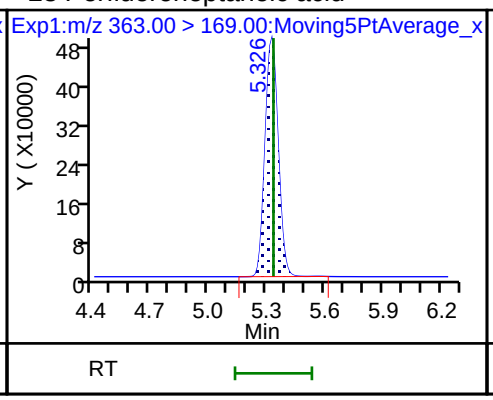
94 R-PSDCA



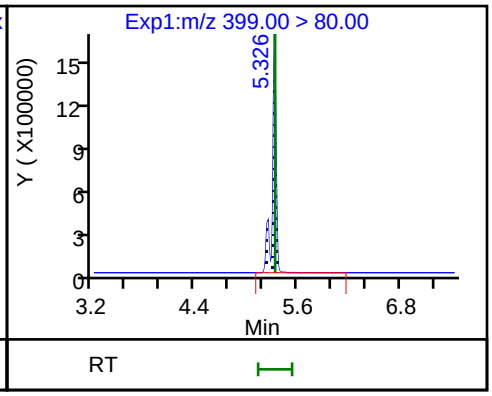
23 Perfluoroheptanoic acid



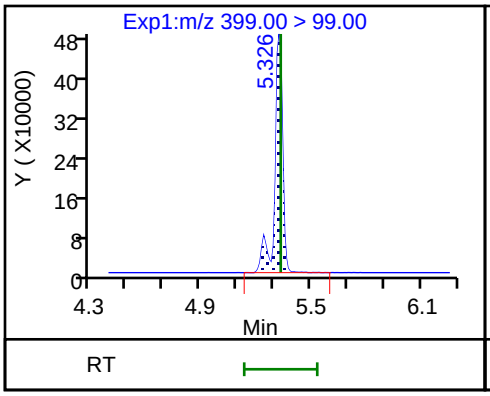
23 Perfluoroheptanoic acid



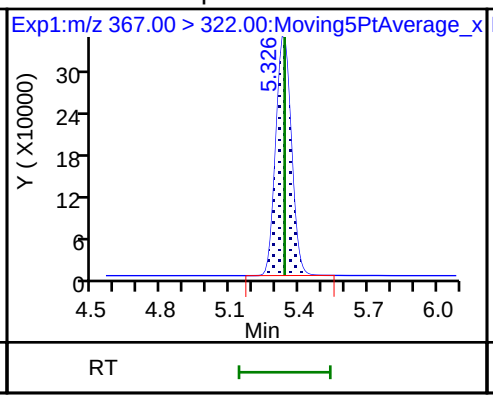
26 Perfluorohexanesulfonic acid



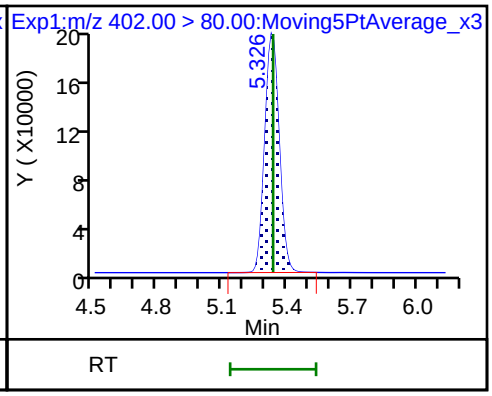
26 Perfluorohexanesulfonic acid



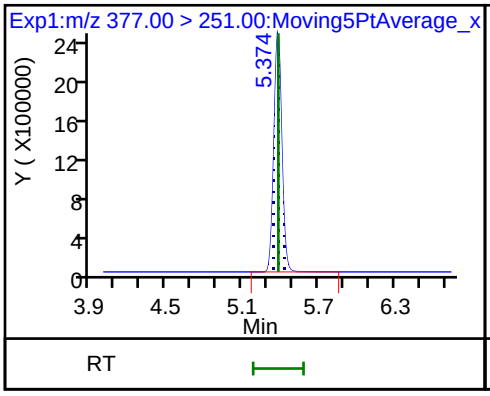
D 24 13C4 PFHpA



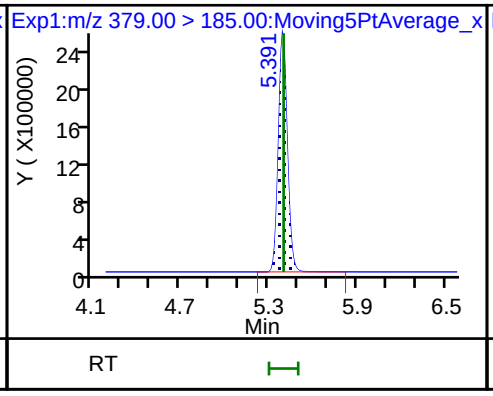
D 25 13C3 PFHxS



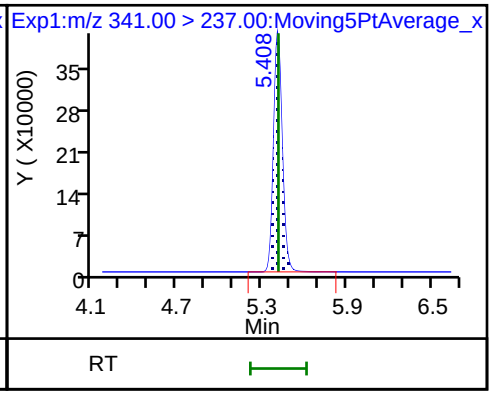
27 DONA



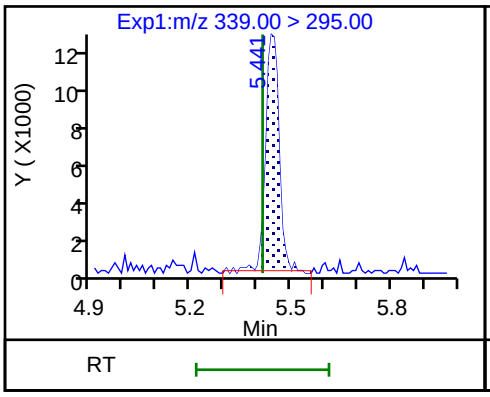
98 PFECA G



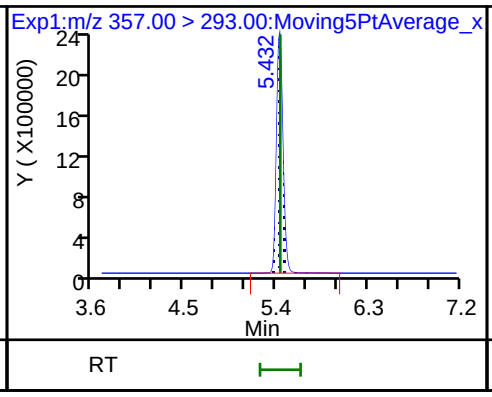
28 5:3 FTCA



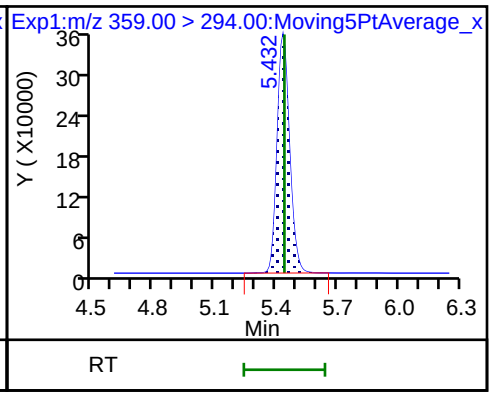
28 5:3 FTCA



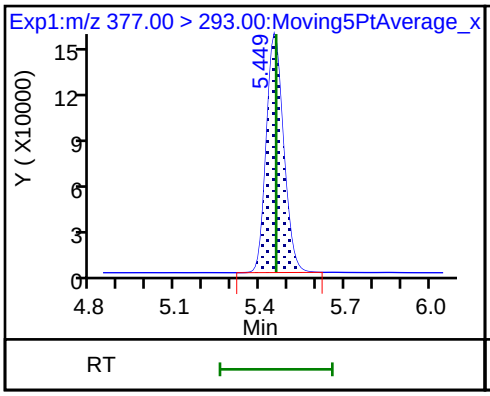
29 6:2 FTUCA



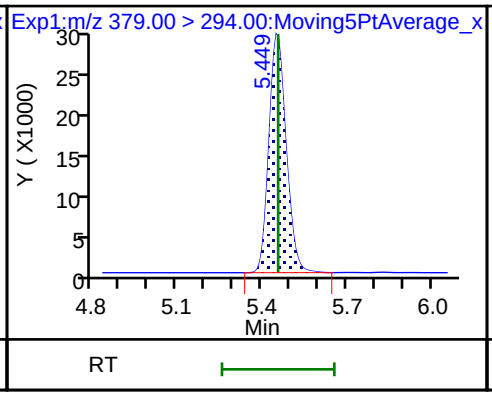
D 30 13C-6:2 FTUCA



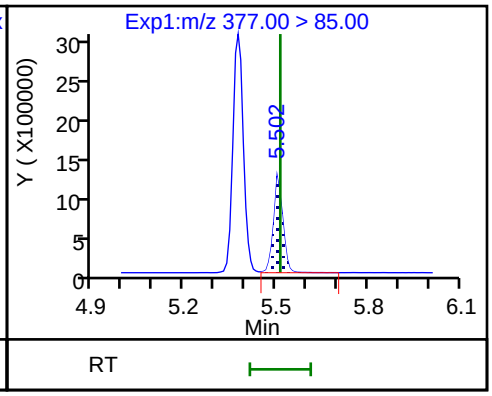
32 6:2 FTCA



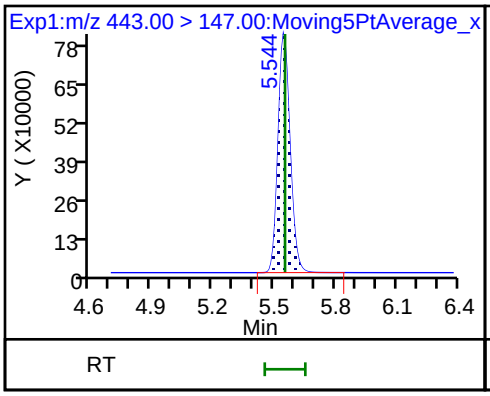
D 31 13C-6:2 FTCA



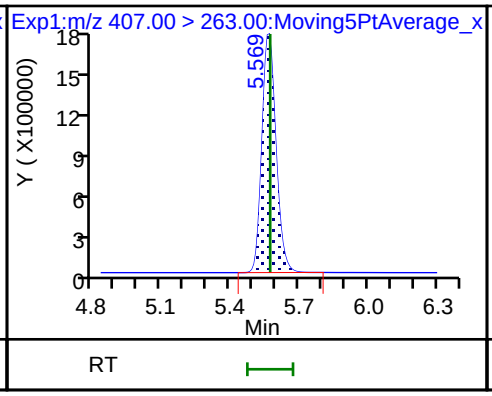
95 PFO4DA



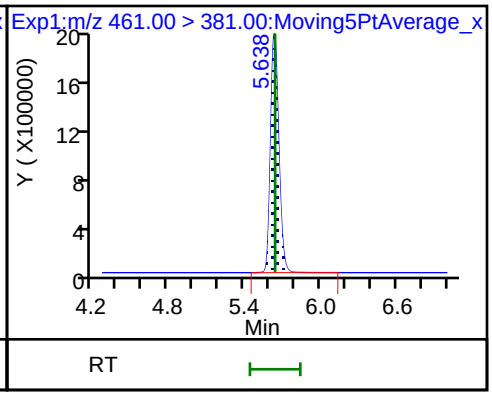
104 PS Acid



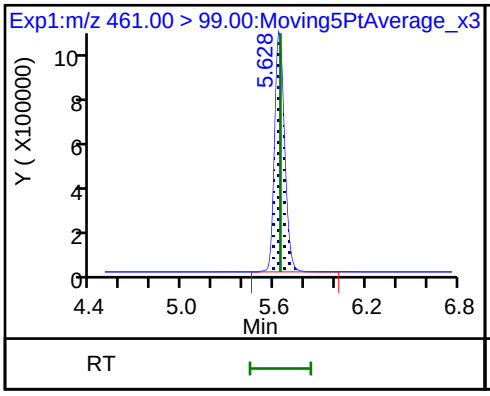
90 EVE Acid



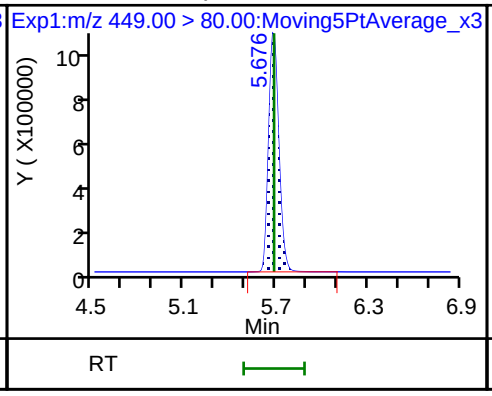
33 PFECHS



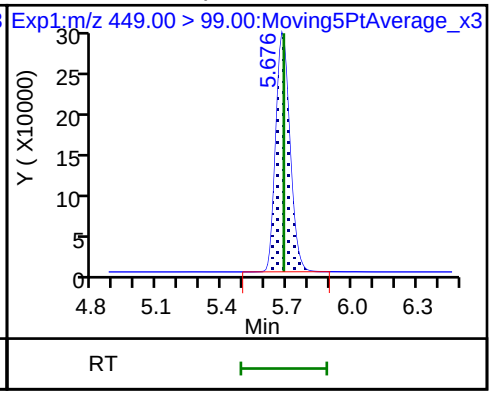
33 PFECHS



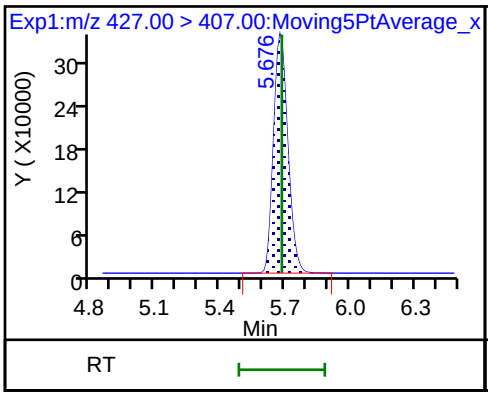
36 Perfluoroheptanesulfonic acid



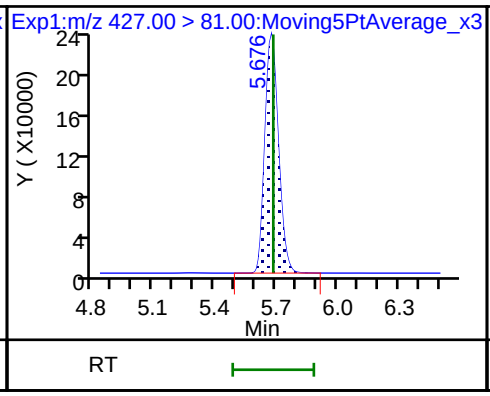
36 Perfluoroheptanesulfonic acid



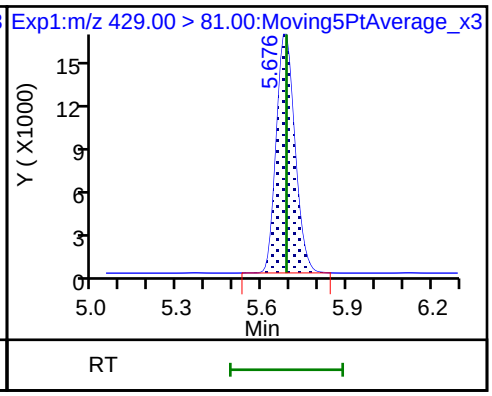
34 6:2 FTS



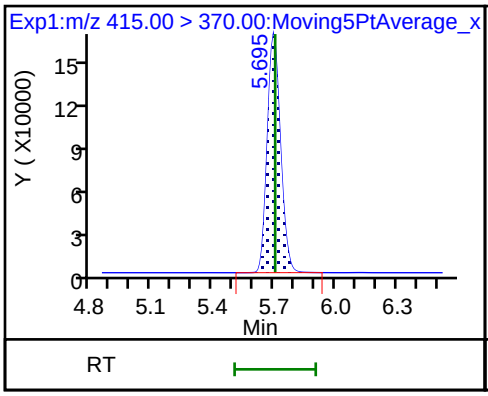
34 6:2 FTS



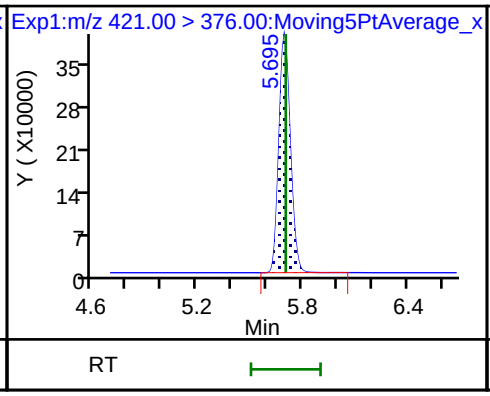
D 35 M2-6:2 FTS



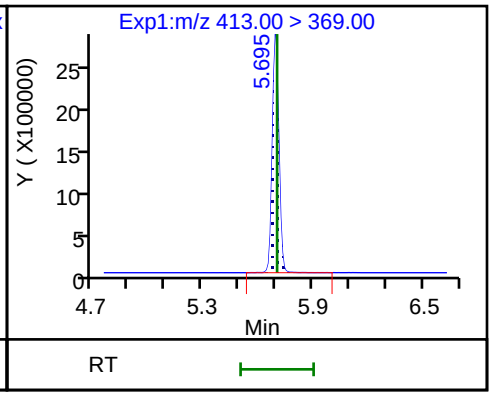
* 38 13C2 PFOA



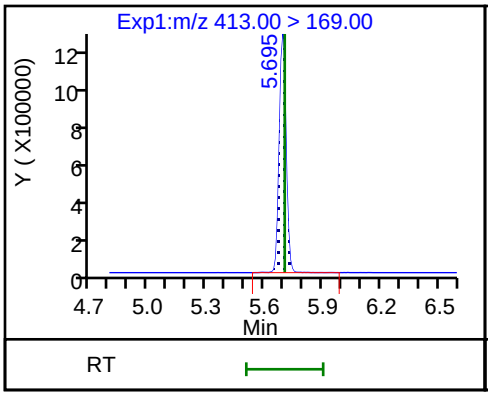
D 37 13C8 PFOA



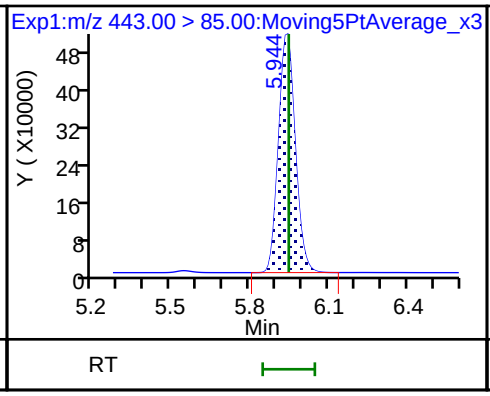
40 Perfluorooctanoic acid



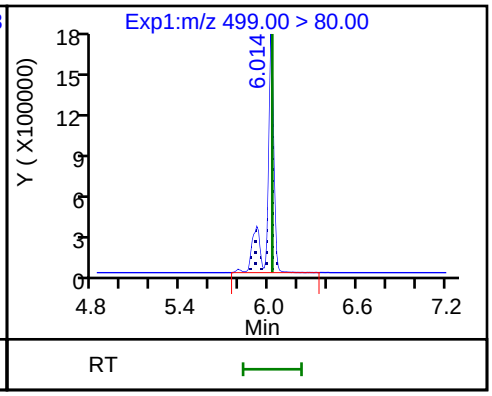
40 Perfluorooctanoic acid



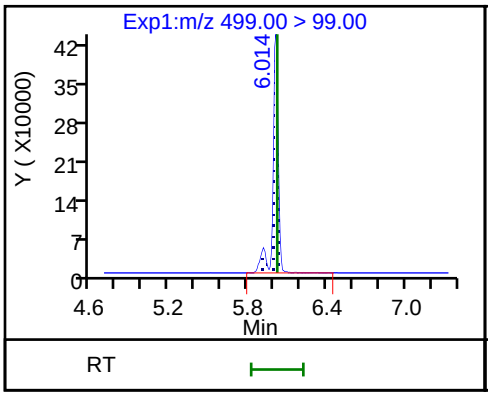
101 TAF



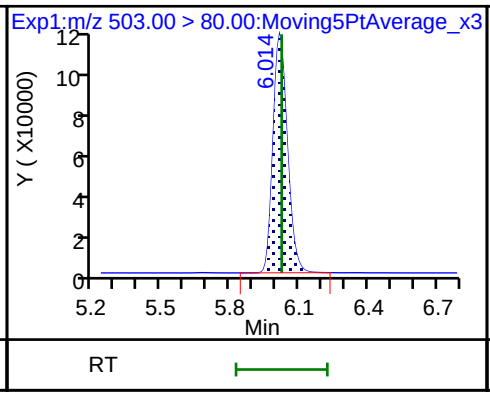
43 Perfluorooctanesulfonic acid



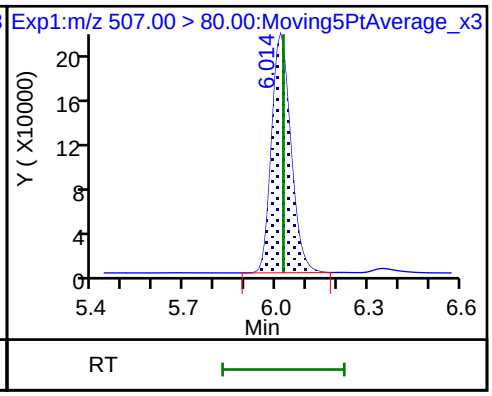
43 Perfluorooctanesulfonic acid



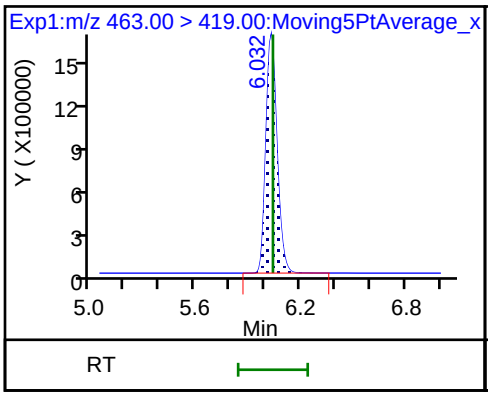
* 42 13C4 PFOS



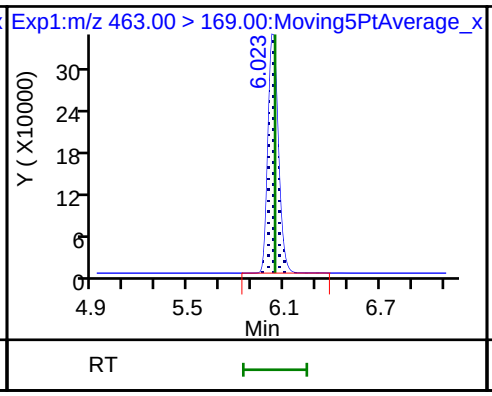
D 41 13C8 PFOS



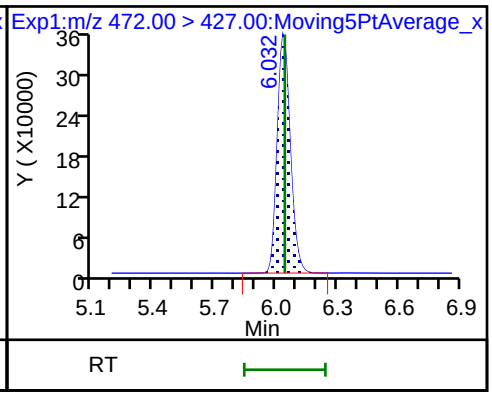
44 Perfluorononanoic acid



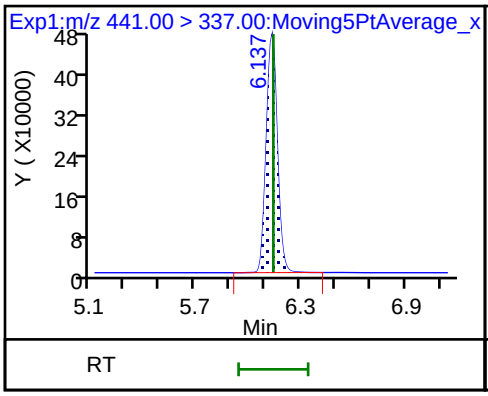
44 Perfluorononanoic acid



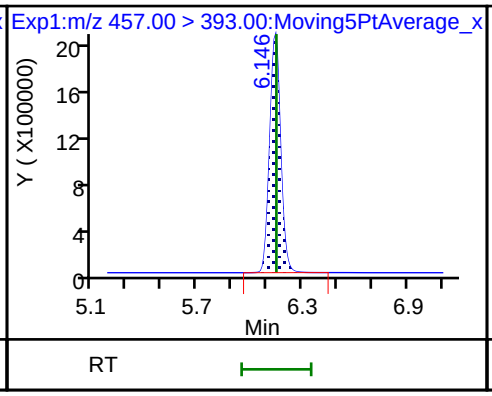
D 45 13C9 PFNA



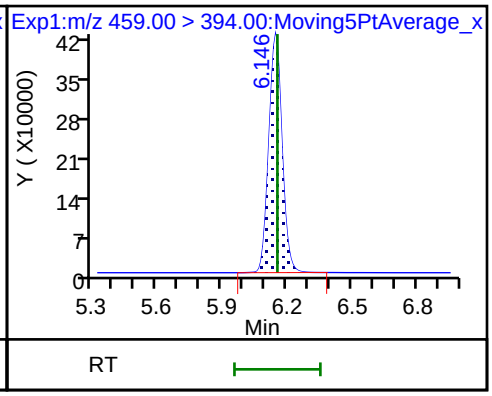
46 7:3 FTCA



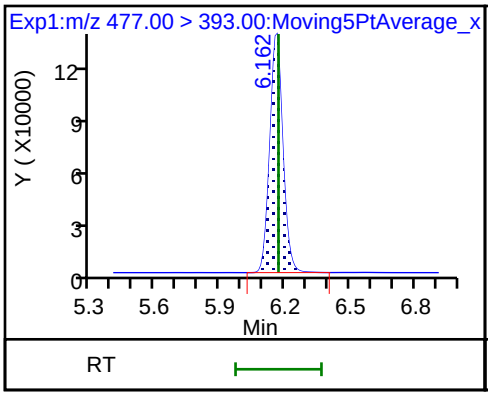
47 8:2 FTUCA



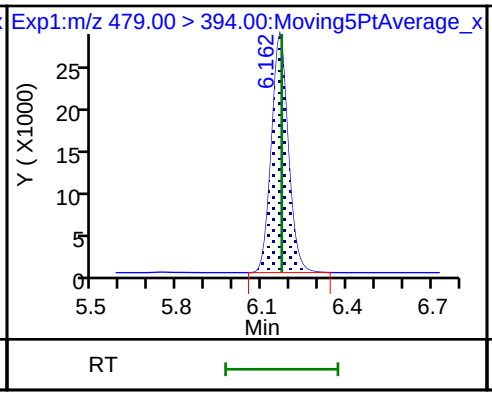
D 48 13C-8:2 FTUCA



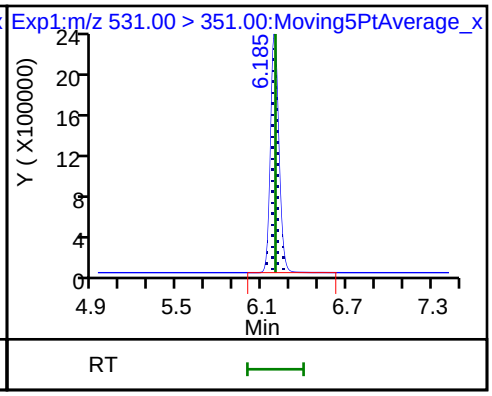
49 8:2 FTCA



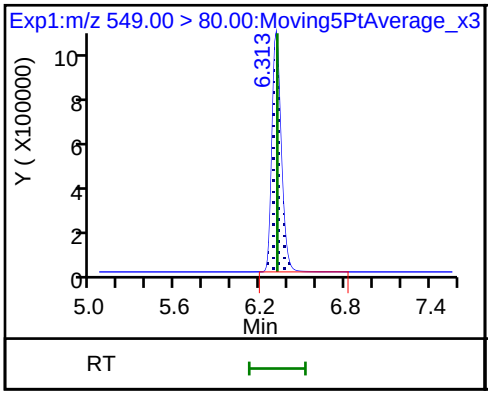
D 50 13C-8:2 FTCA



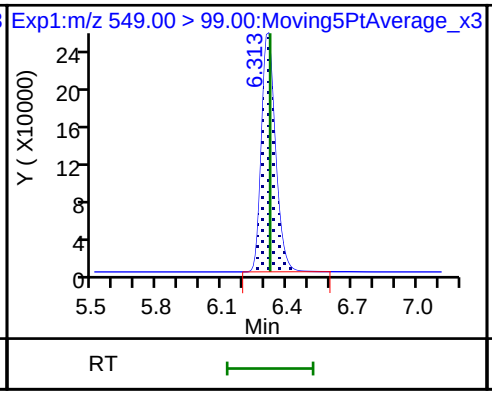
51 9ClFOS



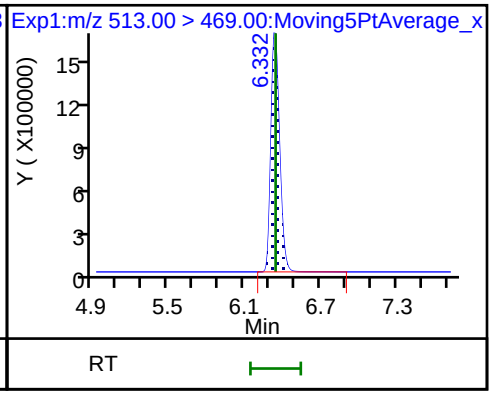
52 Perfluorononanesulfonic acid



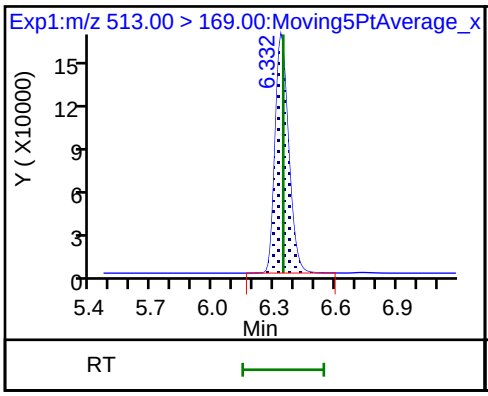
52 Perfluorononanesulfonic acid



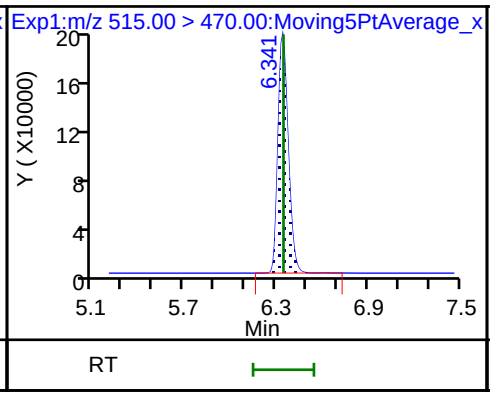
53 Perfluorodecanoic acid



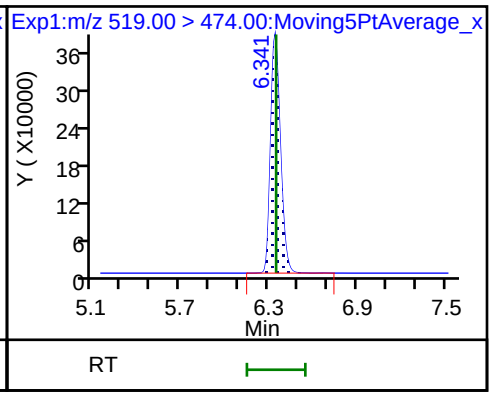
53 Perfluorodecanoic acid



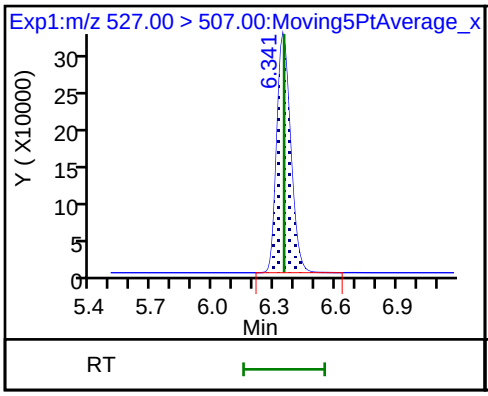
* 55 13C2 PFDA



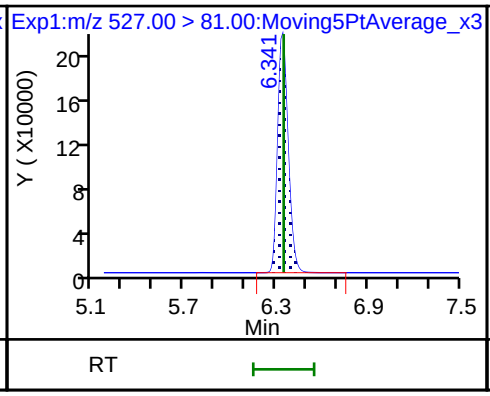
D 54 13C6 PFDA



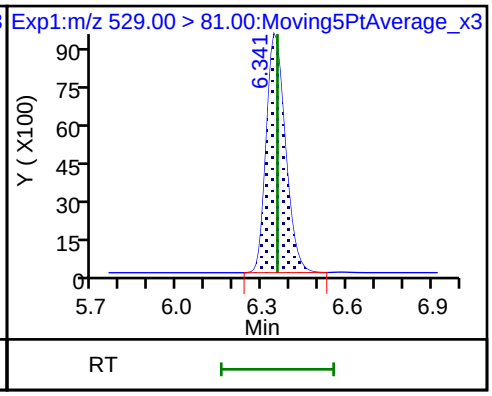
56 8:2 FTS



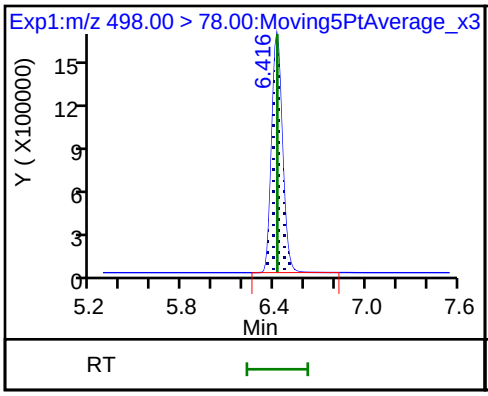
56 8:2 FTS



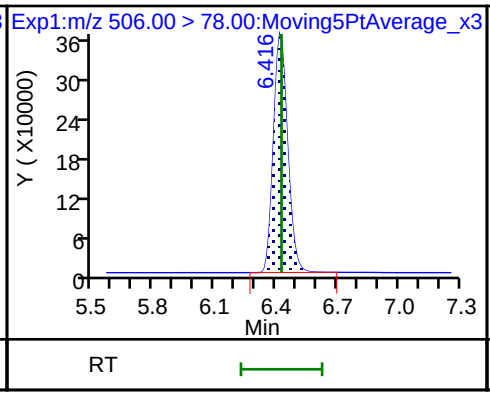
D 57 M2-8:2 FTS



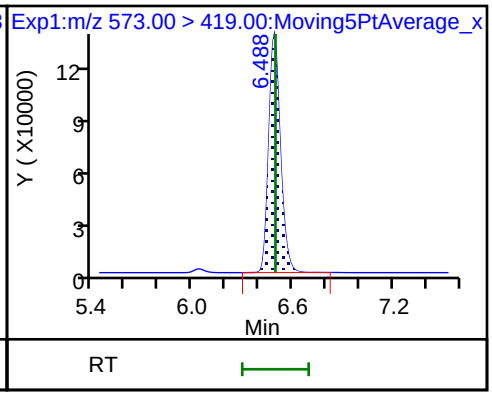
58 Perfluorooctanesulfonamide



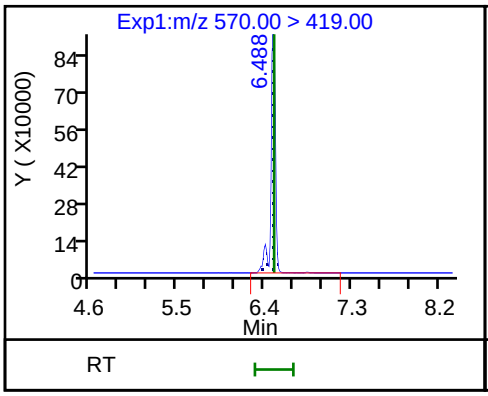
D 59 13C8 FOSA



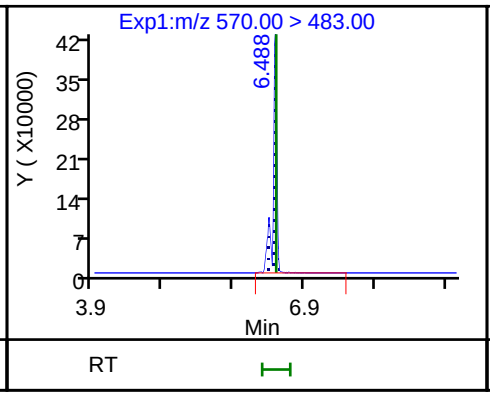
D 61 d3-NMeFOSAA



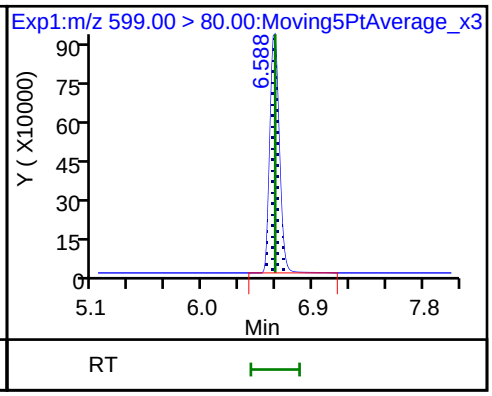
60 NMeFOSAA



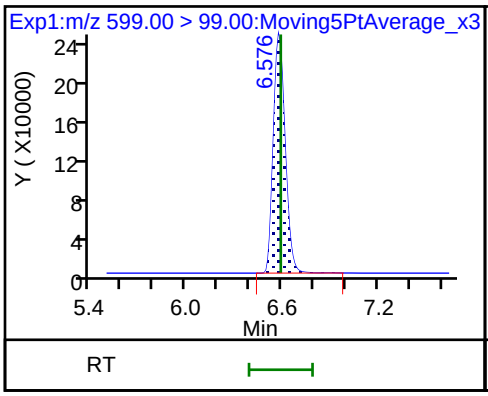
60 NMeFOSAA



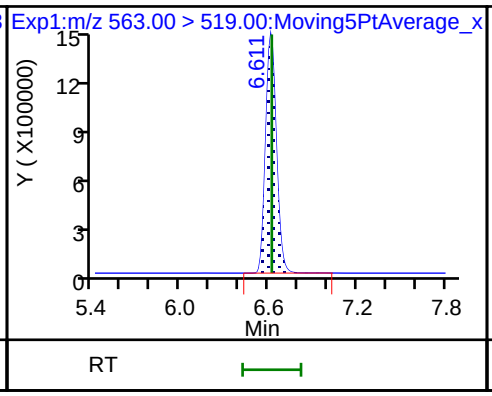
62 Perfluorodecanesulfonic acid



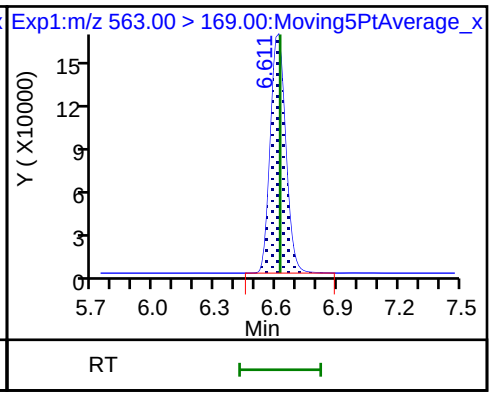
62 Perfluorodecanesulfonic acid



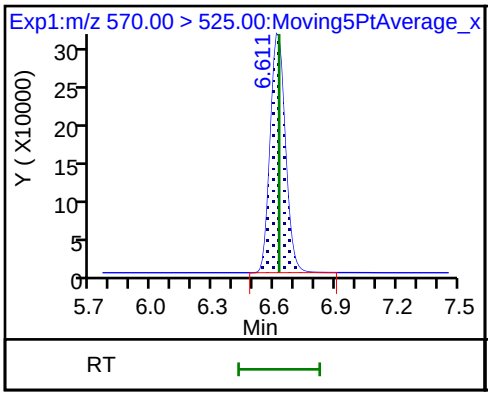
63 Perfluoroundecanoic acid



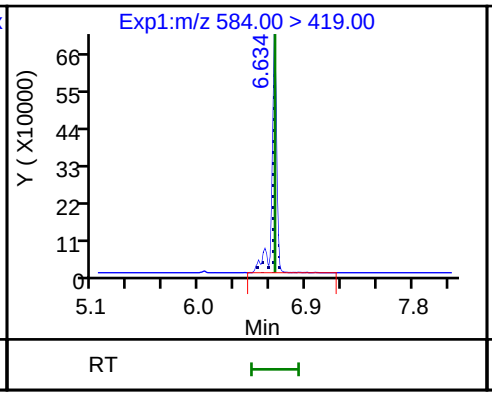
63 Perfluoroundecanoic acid



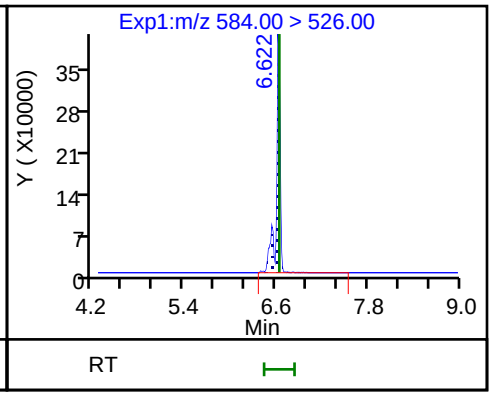
D 65 13C7 PFUnA



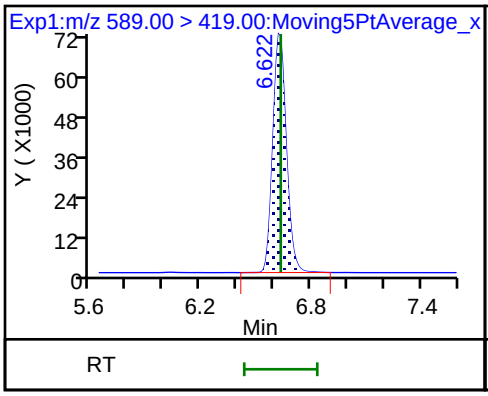
67 NEtFOSAA



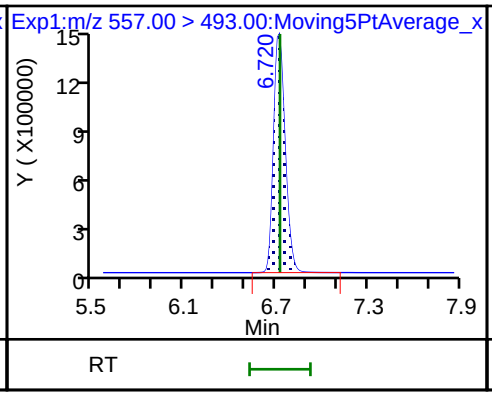
67 NEtFOSAA



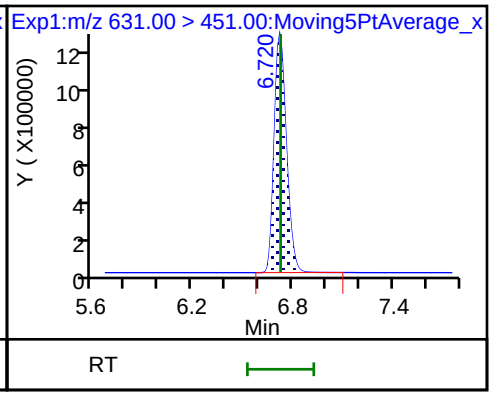
D 66 d5-NEtFOSAA



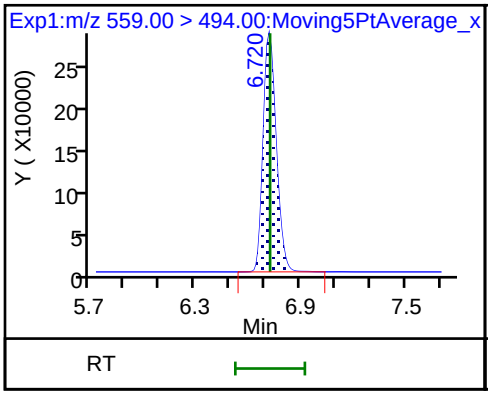
68 10:2 FTUCA



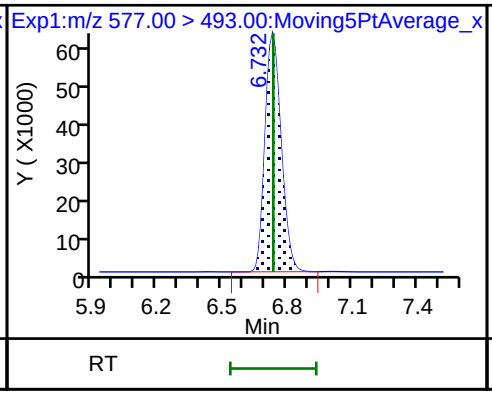
69 11ClFOS



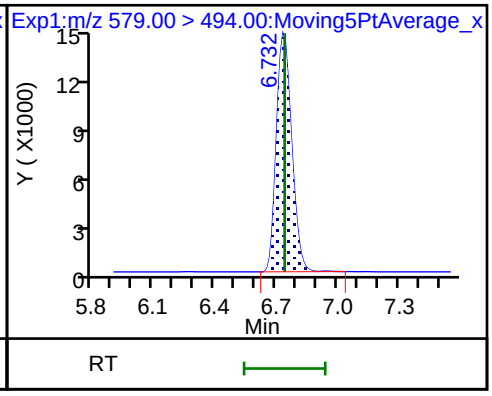
D 70 13C-10:2 FTUCA



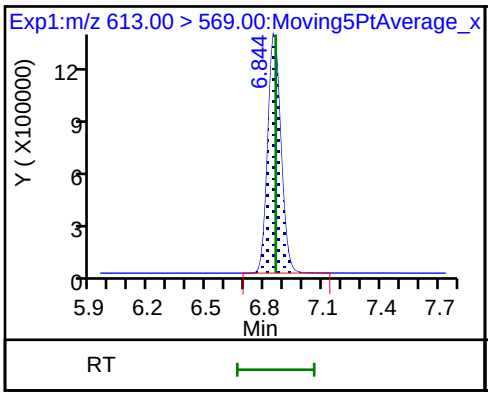
71 10:2 FTCA



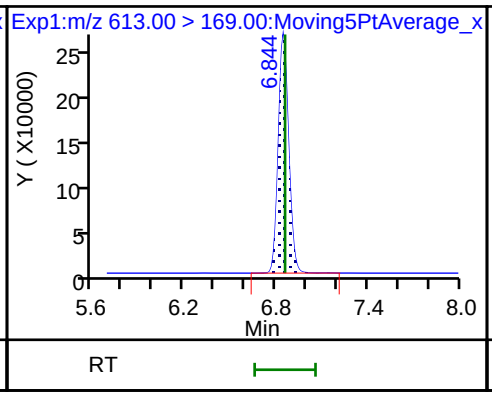
D 72 13C-10:2 FTCA



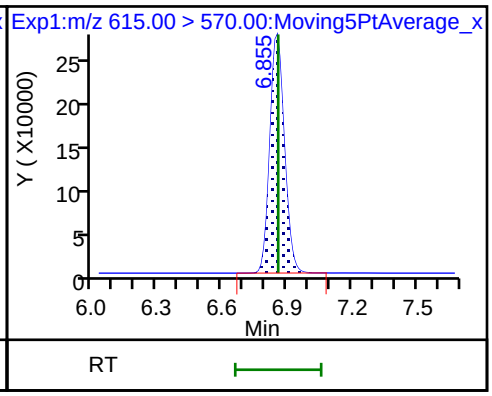
73 Perfluorododecanoic acid



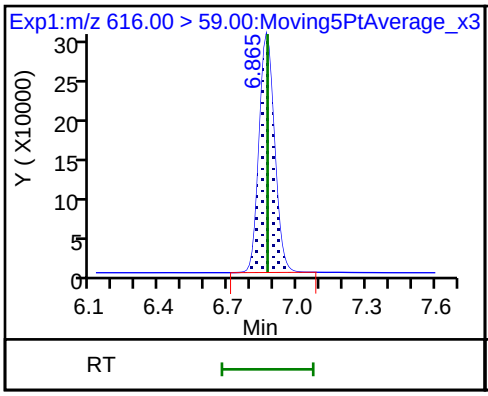
73 Perfluorododecanoic acid



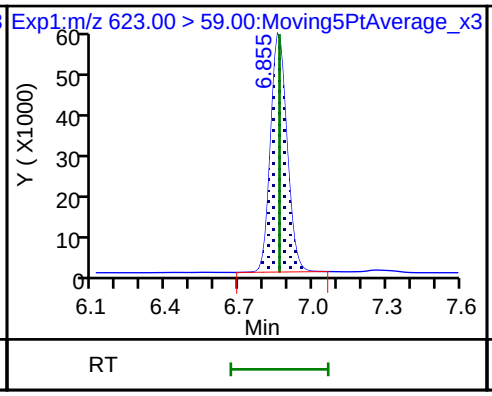
D 74 13C2-PFDoDA



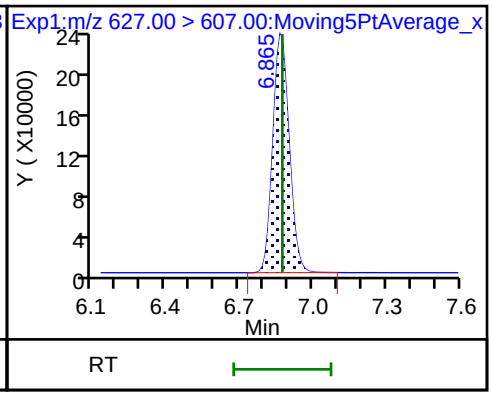
77 N-MeFOSE-M



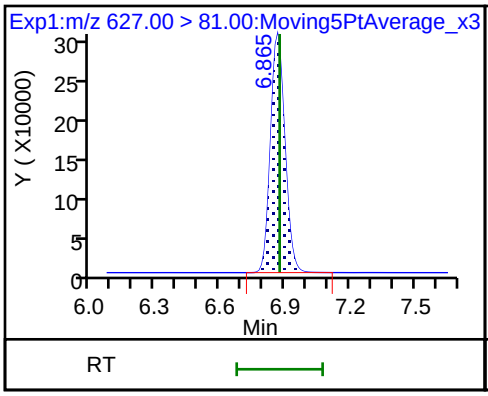
D 76 d7-N-MeFOSE-M



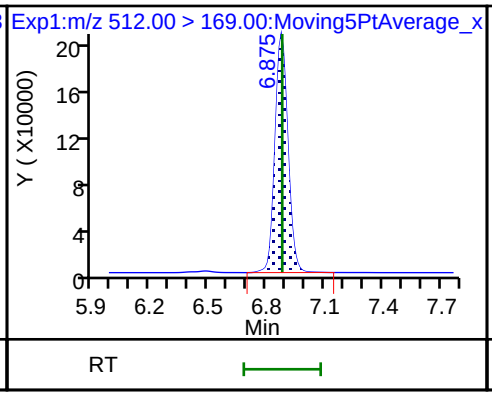
75 10:2 FTS



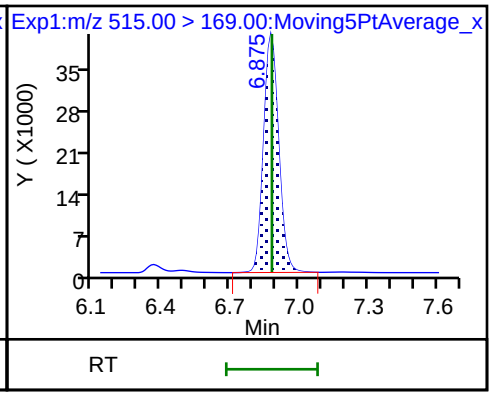
75 10:2 FTS



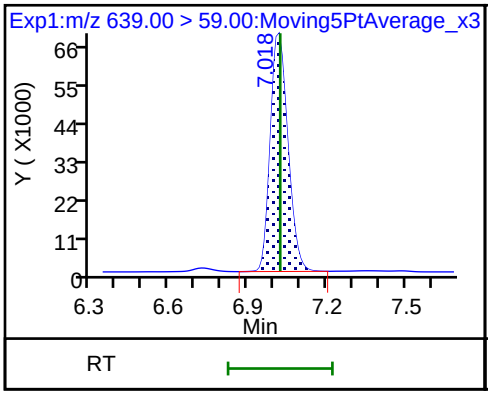
78 NMeFOSA



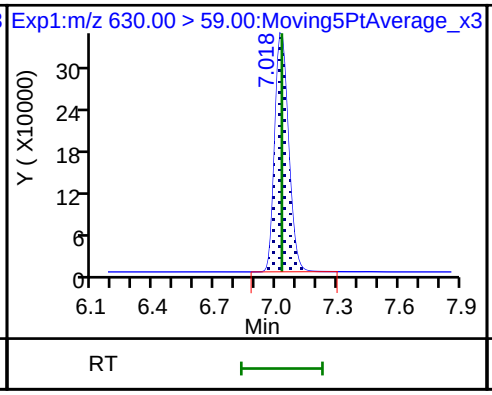
D 79 d3-NMePFOSA



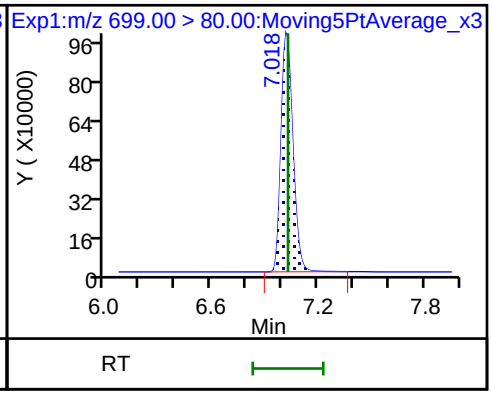
D 81 d9-N-EtFOSE-M



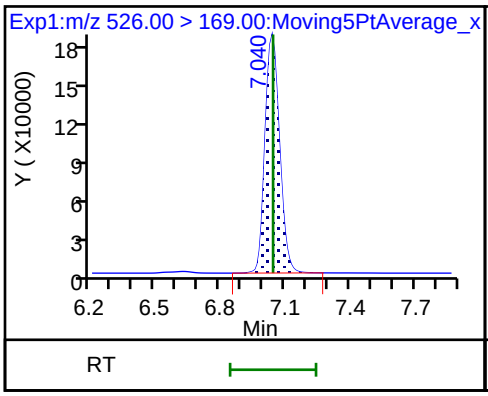
82 N-EtFOSE-M



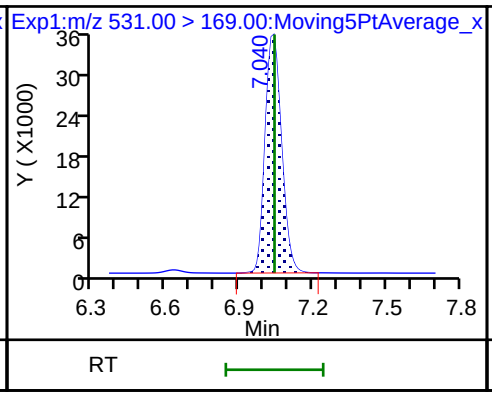
80 PFDoS



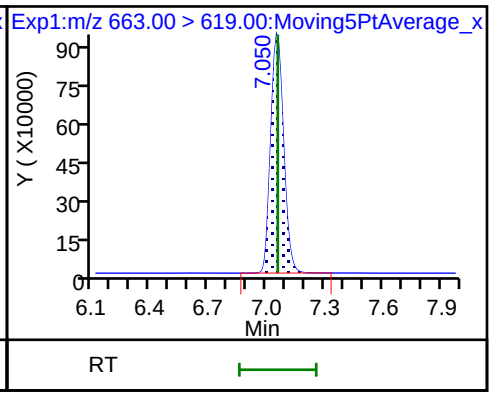
84 N-EtFOSA-M



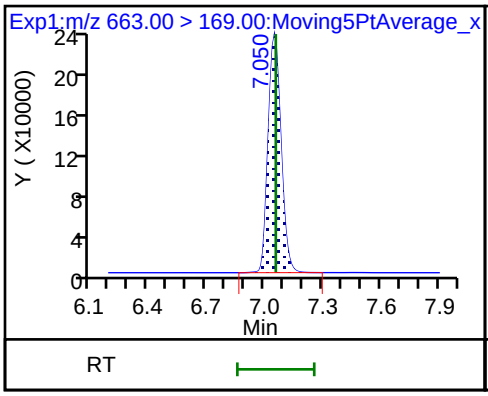
D 83 d5-NEtPFOSA



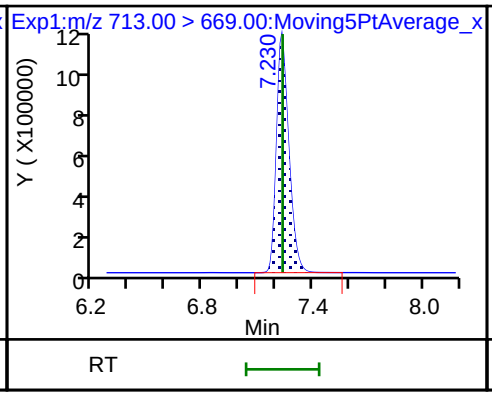
85 Perfluorotridecanoic acid



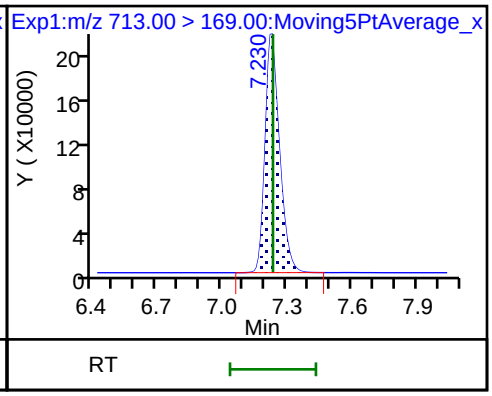
85 Perfluorotridecanoic acid



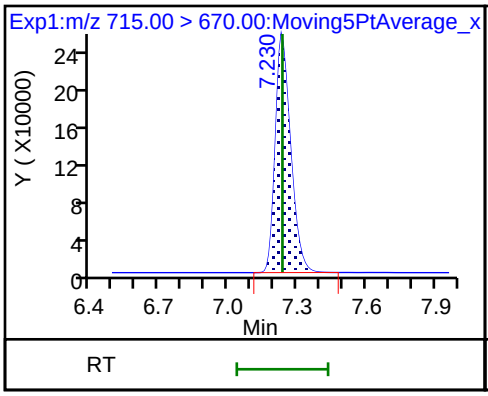
86 Perfluorotetradecanoic acid



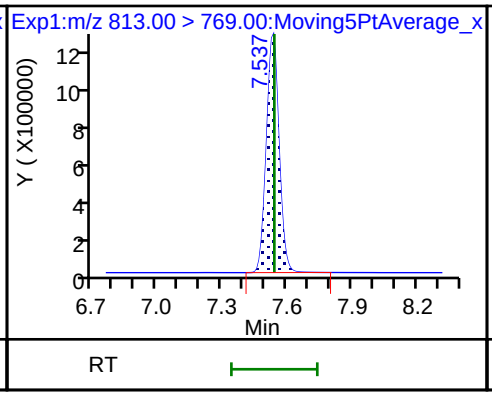
86 Perfluorotetradecanoic acid



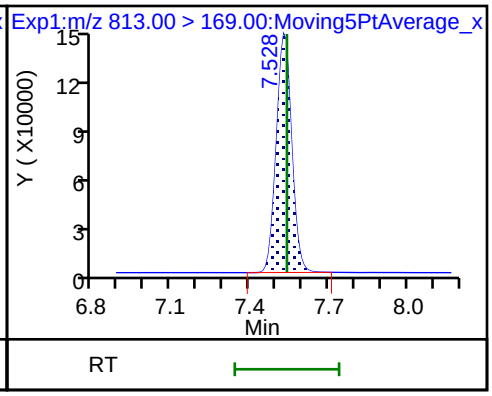
D 87 13C2 PFTeDA



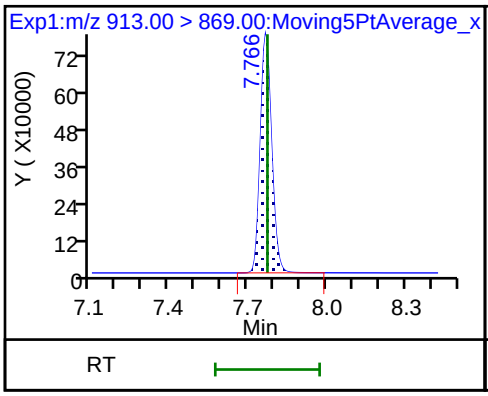
88 Perfluorohexadecanoic acid



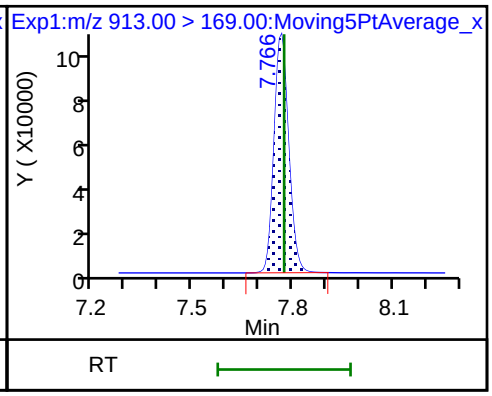
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

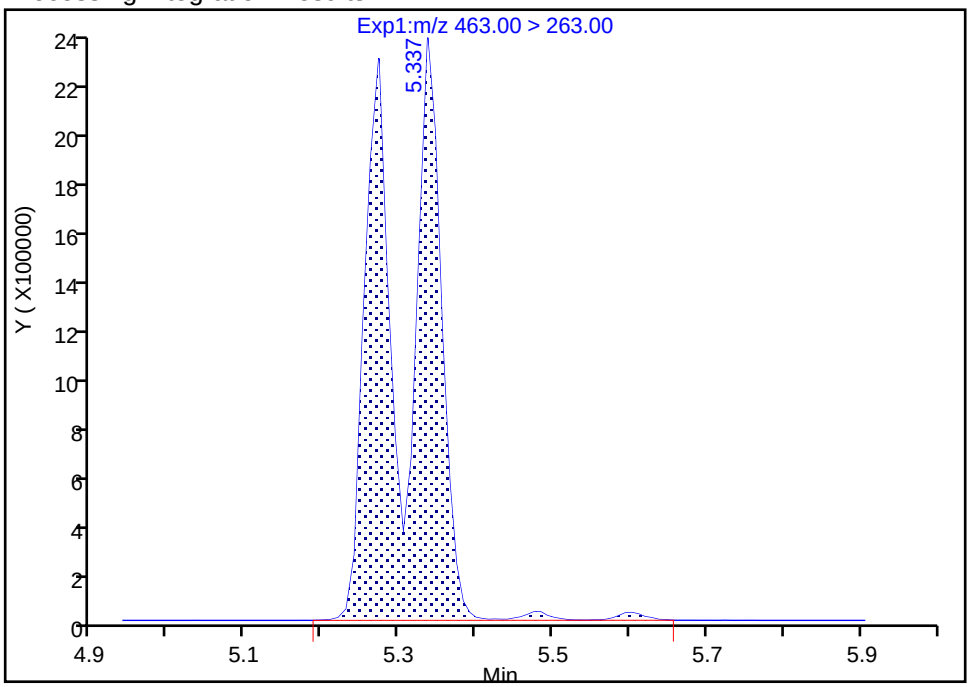
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-06.d				
Injection Date:	22-Feb-2022 16:07:31	Instrument ID:	30733		
Lims ID:	IC CAL6				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20007	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

106 Hydro-PS Acid, CAS: 749836-20-2

Signal: 1

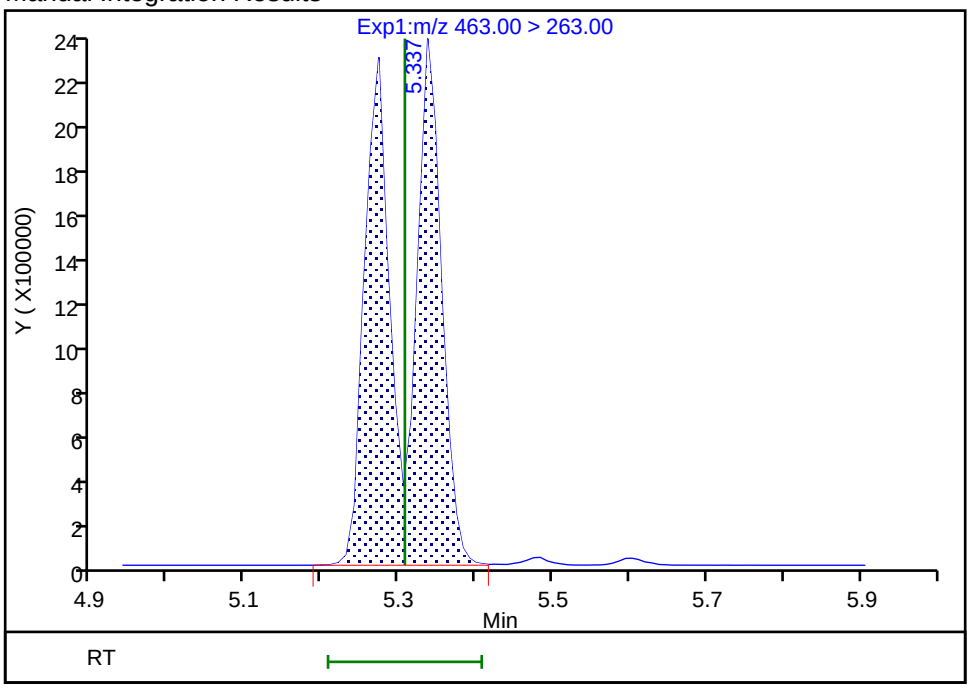
Processing Integration Results

RT: 5.34
Area: 10467569
Amount: 52.529264
Amount Units: ng/ml



Manual Integration Results

RT: 5.34
Area: 10305892
Amount: 51.189213
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:54:53

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d
Lims ID: IC CAL7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Feb-2022 16:18:36 ALS Bottle#: 20008 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC CAL7
Misc. Info.: Plate: 1 Rack: 1 410-0050930-007
Operator ID: US19_USR_INS20260 Instrument ID: 30733
Sublist: chrom-PFAS_30733_XList_2*sub1

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 10:07:03 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1604

First Level Reviewer: fellenbauma Date: 22-Feb-2022 20:57:33
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										
175.00 > 97.00	1.469	1.481	-0.012	0.370	1560043	172.0		172	36218	
1 PPF Acid										
163.00 > 119.00	1.837	1.838	-0.001	0.463	8059200	110.6		111	22713	
96 PFMOAA										
179.00 > 85.00	2.942	2.948	-0.006	0.741	4984510	112.1		112	26366	
100 R-PSDA										
441.00 > 241.00	3.947	3.955	-0.008	0.863	354866	112.8		113	26055	
99 R-EVE										
405.00 > 217.00	3.947	3.957	-0.010	0.994	1145500	100.5		100	82170	
105 Hydrolyzed PSDA										
439.00 > 343.00	3.963	3.972	-0.009	0.867	1698563	107.4		107	62916	
D 3 13C4 PFBA										
217.00 > 172.00	3.972	3.977	-0.005	1.000	1478324	9.74		97.4	111241	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.972	3.977	-0.005	1.000	13088818	93.9		93.9	134630	
* 4 13C3-PFBA										
216.00 > 172.00	3.972	3.979	-0.007		681886	5.00			1688	
102 PMPA										
229.00 > 185.00	4.098	4.105	-0.007	1.032	7262383	112.7		113	119134	
5 PFPrS										
249.00 > 99.00	4.159	4.165	-0.006	1.047	2863305	84.4		92.2	200843	
103 NVHOS										
297.00 > 135.00	4.191	4.199	-0.008	0.917	3064065	106.1		106	158505	
6 PFECA F										
229.00 > 85.00	4.223	4.225	-0.002	1.063	12178989	91.8		91.8	15903	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 PFO2HxA										
245.00 > 85.00	4.402	4.411	-0.009	1.108	4939371	110.4		110	125707	
7 Perfluoropentanoic acid										
263.00 > 219.00	4.514	4.522	-0.008	0.998	13255302	98.3		98.3	122963	
9 3:3 FTCA										
241.00 > 177.00	4.524	4.525	-0.001	1.000	764390	87.8		87.8	54899	
D 8 13C5 PFPeA										
268.00 > 223.00	4.524	4.529	-0.005	1.139	1299452	9.92		99.2	72264	
D 11 13C3 PFBS										
302.00 > 80.00	4.572	4.580	-0.008	1.151	943866	9.10		97.2	71562	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.572	4.579	-0.007	1.000	9943301	91.6	Target=3.22	104	174506	
299.00 > 99.00	4.572	4.579	-0.007	1.000	3074263		3.23(1.61-4.83)	104	115429	
91 PEPA										
279.00 > 235.00	4.628	4.635	-0.007	1.165	2736013	100.8		101	107877	
12 PFECA A										
279.00 > 85.00	4.653	4.658	-0.005	1.018	9967018	103.4		103	185433	
13 PES										
315.00 > 135.00	4.740	4.746	-0.006	1.037	30450639	90.7		102	1522163	
14 PFECA B										
201.00 > 85.00	4.870	4.877	-0.007	1.065	11983132	101.3	Target=1.44	101	4454	
295.00 > 201.00	4.870	4.877	-0.007	1.065	8294948		1.44(0.72-2.15)	101	604956	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.899	4.907	-0.008	0.860	143386	7.16		76.7	10449	
15 4:2 FTS										
327.00 > 307.00	4.899	4.907	-0.008	1.000	4222414	88.3	Target=1.53	94.6	308012	
327.00 > 81.00	4.899	4.907	-0.008	1.000	2521280		1.67(0.77-2.30)	94.6	184940	
$ 18 13C2 PFHxA										
315.00 > 270.00	4.940	4.948	-0.008	0.867	1210850	NC			64836	
D 19 13C5 PFHxA										
318.00 > 273.00	4.940	4.948	-0.008	0.867	1438268	9.23		92.3	102213	
17 Perfluorohexanoic acid										
313.00 > 269.00	4.940	4.946	-0.006	1.000	12612423	104.6	Target=16.07	105	192457	
313.00 > 119.00	4.929	4.946	-0.017	0.998	924062		13.65(8.04-24.11)	105	49136	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.960	4.961	-0.001	1.085	9211514	96.7	Target=3.46	103	664047	
349.00 > 99.00	4.950	4.961	-0.011	1.083	2602087		3.54(1.73-5.19)	103	187674	
93 PFO3OA										
311.00 > 85.00	4.999	5.005	-0.006	1.259	4319339	102.3		102	242912	
21 HFPO-DA										
329.00 > 285.00	5.070	5.074	-0.004	1.000	4689678	94.5		94.5	135398	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.070	5.077	-0.007	0.890	259531	11.3		113	19718	
97 Hydro-EVE Acid										
427.00 > 283.00	5.284	5.286	-0.002	1.330	19796023	105.9		106	4666361	
94 R-PSDCA										
397.00 > 217.00	5.284	5.289	-0.005	1.156	26404682	110.0		110	1807153	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 24 13C4 PFHpA										
367.00 > 322.00	5.337	5.336	0.001	0.937	1532250	8.84		88.4	81545	
D 25 13C3 PFHxS										
402.00 > 80.00	5.326	5.335	-0.009	0.935	829889	8.62		91.1	59743	
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.326	5.335	-0.009	0.998	15082767	97.4	Target=3.65	97.4	802621	
363.00 > 169.00	5.326	5.335	-0.009	0.998	4514445		3.34(1.82-5.47)	97.4	87507	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.326	5.335	-0.009	1.000	8837725	92.7	Target=3.59	102	22804	
399.00 > 99.00	5.326	5.335	-0.009	1.000	2573489		3.43(1.79-5.38)	102	7813	
106 Hydro-PS Acid										M
463.00 > 263.00	5.273	5.307	-0.034	1.153	20563075	108.3		108	74172	M
27 DONA										
377.00 > 251.00	5.374	5.381	-0.007	1.007	20769825	106.4		113	219288	
98 PFECA G										
379.00 > 185.00	5.391	5.399	-0.008	1.357	21495071	100.4		100	364366	
28 5:3 FTCA										
341.00 > 237.00	5.407	5.414	-0.007	1.013	2978020	96.4	Target=50.84	96.4	176820	
339.00 > 295.00	5.441	5.414	0.027	1.020	59434		50.11(25.42-76.26)	96.4	1561	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.432	5.439	-0.007	0.954	1425476	9.51		95.1	84361	
29 6:2 FTUCA										
357.00 > 293.00	5.432	5.438	-0.006	1.000	16791249	86.7		86.7	445590	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.449	5.456	-0.007	0.957	130381	9.48		94.8	10229	
32 6:2 FTCA										
377.00 > 293.00	5.449	5.456	-0.007	1.000	1162200	84.5		84.5	55182	
95 PFO4DA										
377.00 > 85.00	5.502	5.513	-0.011	1.385	5417455	110.7		111	784	
104 PS Acid										
443.00 > 147.00	5.544	5.552	-0.008	1.213	6327050	104.9		105	305437	
90 EVE Acid										
407.00 > 263.00	5.569	5.573	-0.004	1.402	14334404	100.3		100	1126765	
33 PFECHS										
461.00 > 381.00	5.629	5.640	-0.011	1.057	15533809	99.6	Target=1.94	108	1145864	
461.00 > 99.00	5.629	5.640	-0.011	1.057	8201308		1.89(0.97-2.91)	108	455862	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.677	5.686	-0.009	0.997	61054	7.38		77.7	4266	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.677	5.685	-0.008	1.066	9362625	105.1	Target=3.50	110	682117	
449.00 > 99.00	5.677	5.685	-0.008	1.066	2396610		3.91(1.75-5.24)	110	130851	
34 6:2 FTS										
427.00 > 407.00	5.677	5.685	-0.008	1.000	2616206	90.3	Target=1.31	95.2	188571	
427.00 > 81.00	5.677	5.685	-0.008	1.000	1938063		1.35(0.65-1.96)	95.2	103854	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.696	5.704	-0.008	1.000	14156521	107.3	Target=2.48	107	979662	
413.00 > 169.00	5.696	5.704	-0.008	1.000	5641052		2.51(1.24-3.72)	107	2281759	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 37 13C8 PFOA										
421.00 > 376.00	5.696	5.704	-0.008	1.000	1725815	9.04		90.4	94567	
* 38 13C2 PFOA										
415.00 > 370.00	5.696	5.704	-0.008		720842	5.00			39730	
$ 39 13C4 PFOA										
417.00 > 372.00	5.696	5.704	-0.008	1.000	1677592	NC			92366	
101 TAF										
443.00 > 85.00	5.945	5.947	-0.002	1.497	4536178	103.9		104	34221	
D 41 13C8 PFOS										
507.00 > 80.00	6.015	6.023	-0.008	1.000	868688	8.97		93.8	8574	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00	6.015	6.022	-0.007	1.000	9325779	96.3	Target=4.38	104	4848	
499.00 > 99.00	6.006	6.022	-0.016	0.998	2080389		4.48(2.19-6.57)	104	3433	
* 42 13C4 PFOS										
503.00 > 80.00	6.015	6.023	-0.008		459161	4.78			34807	
D 45 13C9 PFNA										
472.00 > 427.00	6.033	6.041	-0.008	1.003	1533501	9.51		95.1	68915	
44 Perfluorononanoic acid										
463.00 > 419.00	6.033	6.041	-0.008	1.000	13687973	96.4	Target=4.84	96.4	617761	
463.00 > 169.00	6.033	6.041	-0.008	1.000	2786377		4.91(2.42-7.25)	96.4	125876	
46 7:3 FTCA										
441.00 > 337.00	6.139	6.144	-0.005	1.127	3575932	83.2		83.2	136034	
47 8:2 FTUCA										
457.00 > 393.00	6.148	6.150	-0.002	1.000	15240041	83.3		83.3	1181463	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.148	6.155	-0.007	0.969	1716324	9.25		92.5	99759	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.164	6.169	-0.005	0.972	109830	8.83		88.3	8784	
49 8:2 FTCA										
477.00 > 393.00	6.164	6.169	-0.005	1.000	961748	93.3		93.3	77538	
51 9ClFOS										
531.00 > 351.00	6.187	6.193	-0.006	1.029	16560924	100.3		108	1361169	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.316	6.321	-0.005	1.050	8960473	98.8	Target=4.28	103	337332	
549.00 > 99.00	6.316	6.321	-0.005	1.050	2094539		4.28(2.14-6.42)	103	117781	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.344	6.344	0.0	1.000	14642849	94.4	Target=10.44	94.4	350107	
513.00 > 169.00	6.335	6.344	-0.009	0.998	1421127		10.30(5.22-15.66)	94.4	51524	
D 54 13C6 PFDA										
519.00 > 474.00	6.344	6.348	-0.004	1.000	1584027	9.45		94.5	113599	
D 57 M2-8:2 FTS										
529.00 > 81.00	6.354	6.354	0.0	1.002	39338	8.61		89.9	2772	
* 55 13C2 PFDA										
515.00 > 470.00	6.344	6.346	-0.002		841630	5.00			60116	
56 8:2 FTS										
527.00 > 507.00	6.344	6.348	-0.004	0.998	2749690	86.6	Target=1.54	90.4	194494	
527.00 > 81.00	6.344	6.348	-0.004	0.998	1722465		1.60(0.77-2.31)	90.4	91805	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.419	6.419	0.0	1.000	15934115	102.8		103	1087441	
D 59 13C8 FOSA										
506.00 > 78.00	6.419	6.425	-0.006	1.012	1542970	9.74		97.4	104272	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.491	6.494	-0.003	1.023	574276	10.2		102	8998	
60 NMeFOSAA										
570.00 > 419.00	6.491	6.497	-0.006	1.000	4869808	102.9	Target=1.64	103	10905	
570.00 > 483.00	6.491	6.497	-0.006	1.000	2634000		1.85(0.82-2.46)	103	767749	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.580	6.590	-0.010	1.094	9133769	96.9	Target=4.07	101	581040	
599.00 > 99.00	6.580	6.590	-0.010	1.094	2249497		4.06(2.03-6.10)	101	145658	
D 65 13C7 PFUnA										
570.00 > 525.00	6.615	6.623	-0.008	1.043	1444666	8.87		88.7	70484	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.615	6.618	-0.003	1.000	13095570	102.7	Target=8.63	103	150599	
563.00 > 169.00	6.615	6.618	-0.003	1.000	1519504		8.62(4.31-12.94)	103	73708	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.615	6.623	-0.008	1.161	1292903	NC			83742	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.626	6.635	-0.009	1.044	359640	9.10		91.0	17329	
67 NEtFOSAA										
584.00 > 419.00	6.638	6.638	0.0	1.002	3564050	111.1	Target=1.31	111	319670	
584.00 > 526.00	6.638	6.638	0.0	1.002	2339992		1.52(0.66-1.97)	111	2671	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.725	6.725	0.0	1.060	1254002	8.94		89.4	78826	
68 10:2 FTUCA										
557.00 > 493.00	6.713	6.723	-0.010	0.998	10915903	85.1		85.1	681149	
69 11ClFOS										
631.00 > 451.00	6.725	6.725	0.0	1.118	11695809	96.6		104	749559	
71 10:2 FTCA										
577.00 > 493.00	6.737	6.735	0.002	1.000	570609	97.5		97.5	36158	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.737	6.741	-0.004	1.062	67016	9.66		96.6	4262	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.850	6.857	-0.007	1.000	11974846	98.2	Target=5.13	98.2	233357	
613.00 > 169.00	6.850	6.857	-0.007	1.000	2205764		5.43(2.56-7.69)	98.2	92623	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.850	6.858	-0.008	1.080	1198210	9.92		99.2	84479	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.860	6.863	-0.003	1.081	267319	10.7		107	7196	
77 N-MeFOSE-M										
616.00 > 59.00	6.870	6.870	0.0	1.001	2954851	103.4		103	211270	
75 10:2 FTS										
627.00 > 607.00	6.870	6.874	-0.004	1.081	1941448	92.3	Target=0.83	95.7	140249	
627.00 > 81.00	6.870	6.874	-0.004	1.081	2277773		0.85(0.42-1.25)	95.7	122321	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
78 NMeFOSA										
512.00 > 169.00	6.880	6.880	0.0	1.000	1860268	90.1		90.1	28563	
D 79 d3-NMePFOSA										
515.00 > 169.00	6.880	6.880	0.0	1.085	183991	11.4		114	5747	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.013	7.022	-0.009	1.105	319202	11.1		111	6316	
82 N-EtFOSE-M										
630.00 > 59.00	7.024	7.027	-0.003	1.002	3180029	95.7		95.7	226687	
80 PFDoS										
699.00 > 80.00	7.024	7.030	-0.006	1.168	8358729	96.2		99.4	595907	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.035	7.042	-0.007	1.109	162863	10.6		106	8716	
84 N-EtFOSA-M										
526.00 > 169.00	7.045	7.044	0.001	1.002	1719291	99.7		99.7	22734	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.056	7.057	-0.001	1.030	8523500	95.3	Target=4.34	95.3	231112	
663.00 > 169.00	7.056	7.057	-0.001	1.030	2031881		4.19(2.17-6.51)	95.3	144073	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.234	7.235	-0.001	1.140	1074706	10.5		105	56962	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.226	7.234	-0.008	0.999	9299254	94.3	Target=5.08	94.3	280350	
713.00 > 169.00	7.226	7.234	-0.008	0.999	1851866		5.02(2.54-7.61)	94.3	79746	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.534	7.540	-0.006	1.041	10273140	93.1	Target=9.01	93.1	161257	
813.00 > 169.00	7.534	7.540	-0.006	1.041	1191523		8.62(4.50-13.51)	93.1	59004	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.770	7.773	-0.003	1.074	4637666	101.0	Target=7.79	101	117351	
913.00 > 169.00	7.764	7.773	-0.009	1.073	587906		7.89(3.89-11.68)	101	38589	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD7_00014 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 10:07:04 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Injection Date: 22-Feb-2022 16:18:36 Instrument ID: 30733

Lims ID: IC CAL7

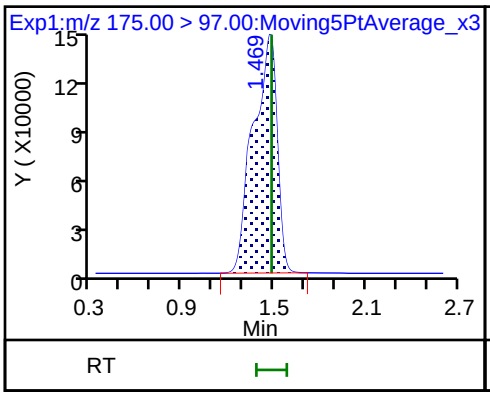
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20008 Worklist Smp#: 7

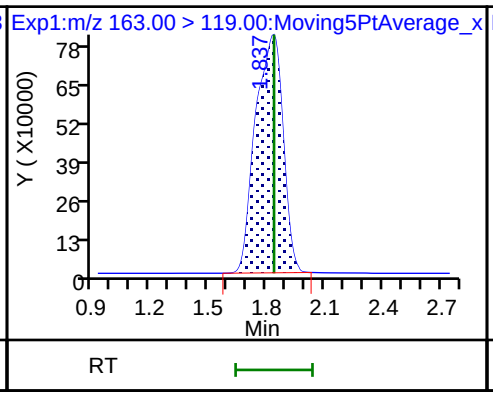
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

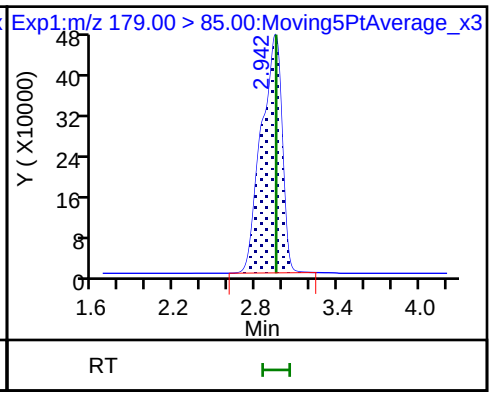
107 MTP



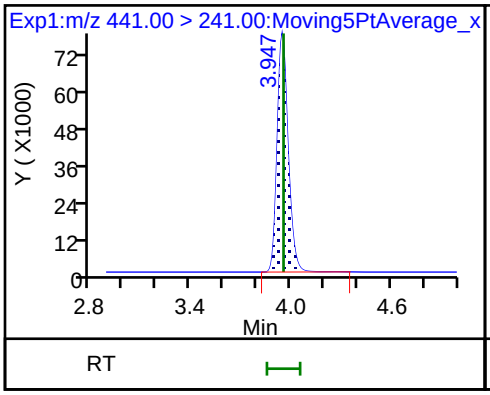
1 PPF Acid



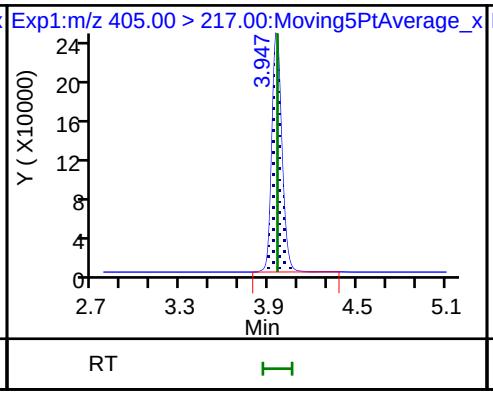
96 PFMOAA



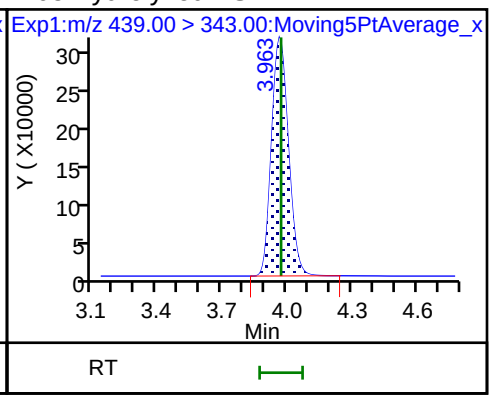
100 R-PSDA



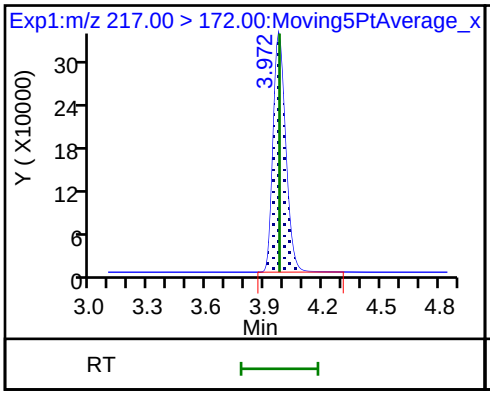
99 R-EVE



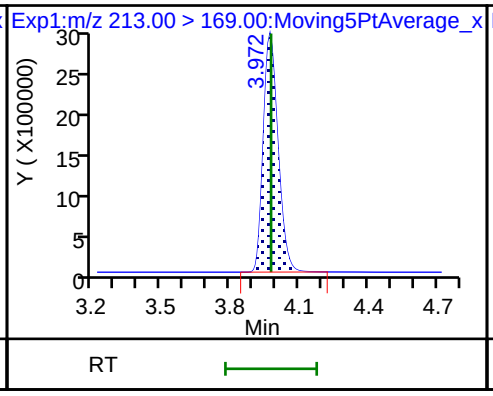
105 Hydrolyzed PSDA



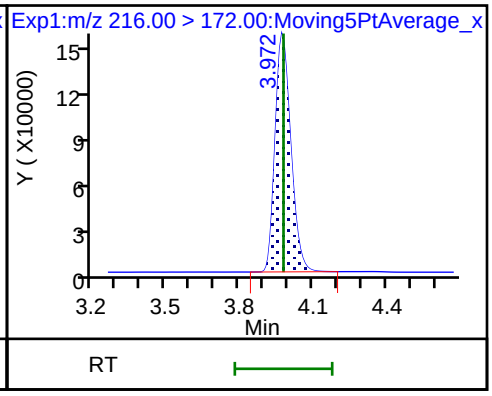
D 3 13C4 PFBA



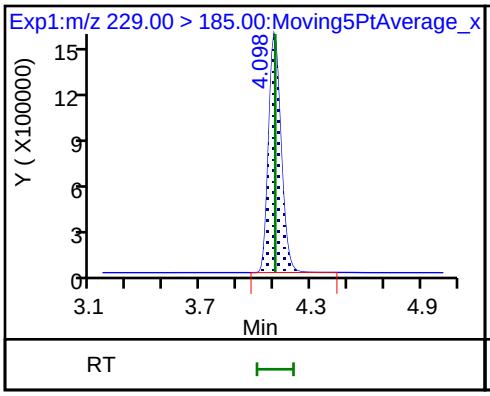
2 Perfluorobutanoic acid



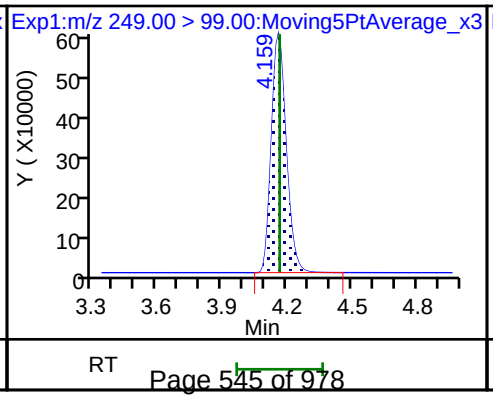
* 4 13C3-PFBA



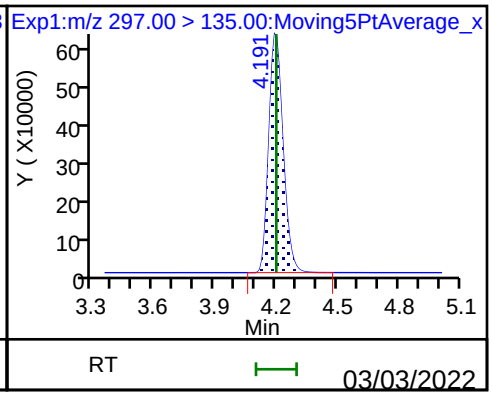
102 PMPA



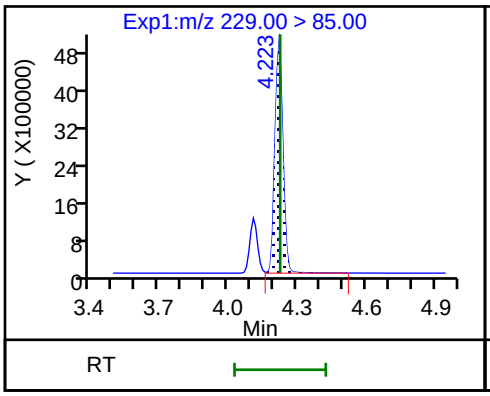
5 PFPrS



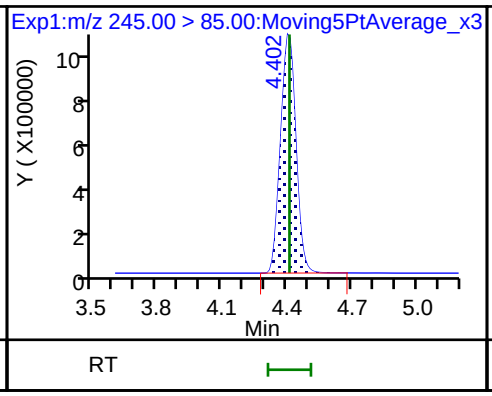
103 NVHOS



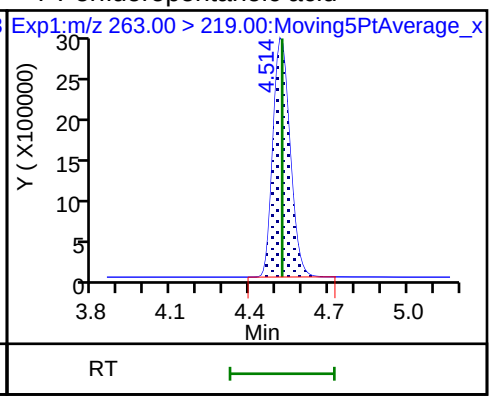
6 PFECA F



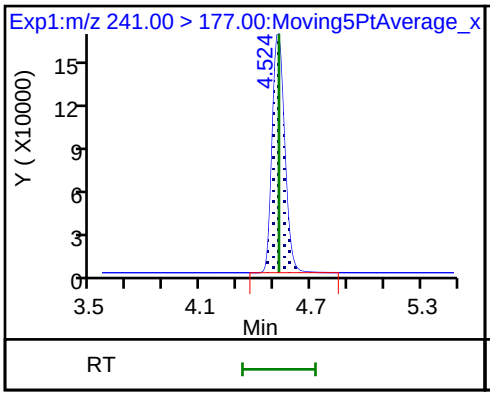
92 PFO2HxA



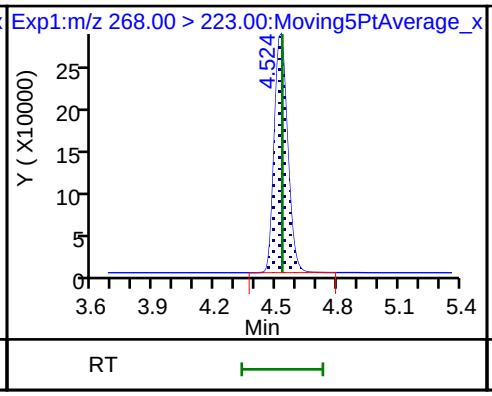
7 Perfluoropentanoic acid



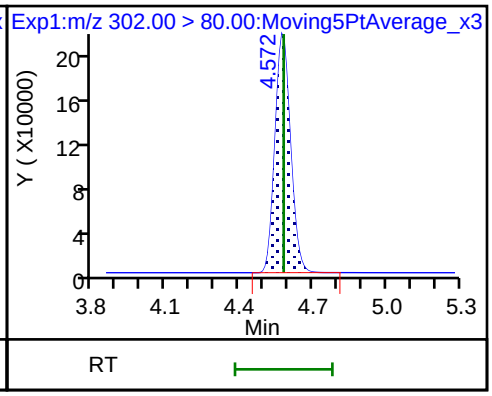
9 3:3 FTCA



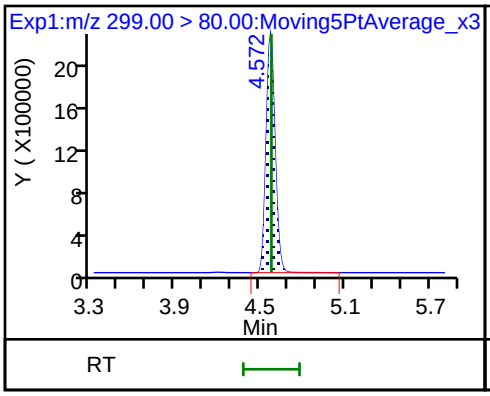
D 8 13C5 PFPeA



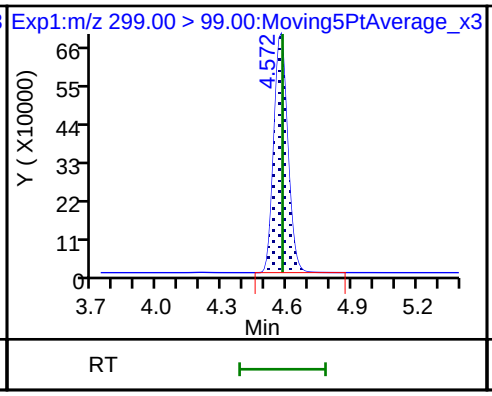
D 11 13C3 PFBS



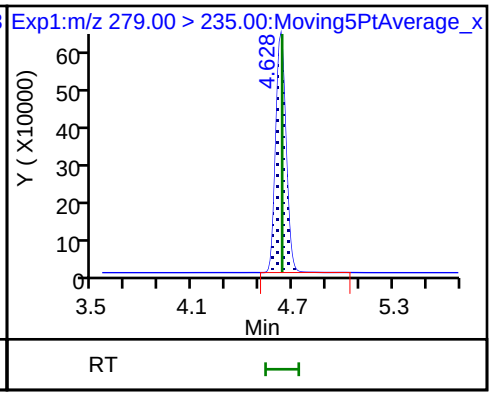
10 Perfluorobutanesulfonic acid



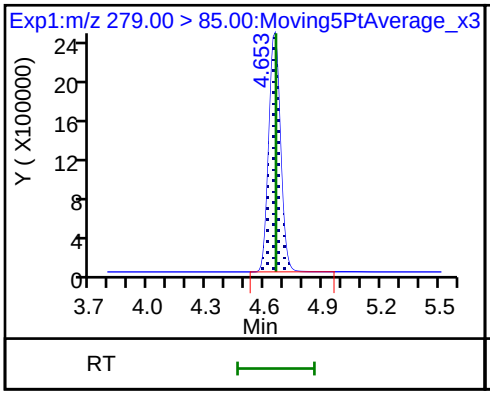
10 Perfluorobutanesulfonic acid



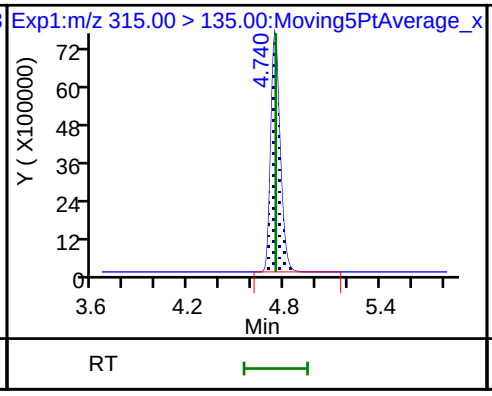
91 PEPA



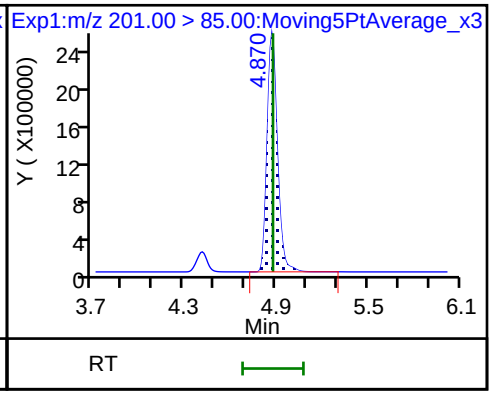
12 PFECA A



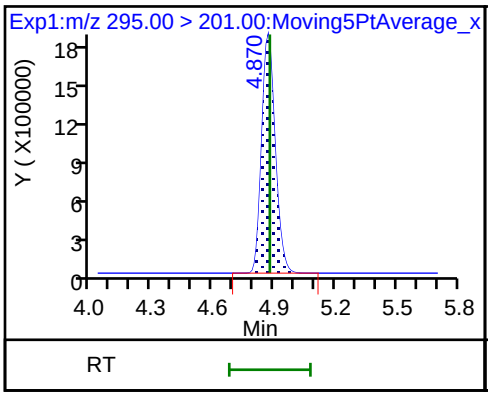
13 PES



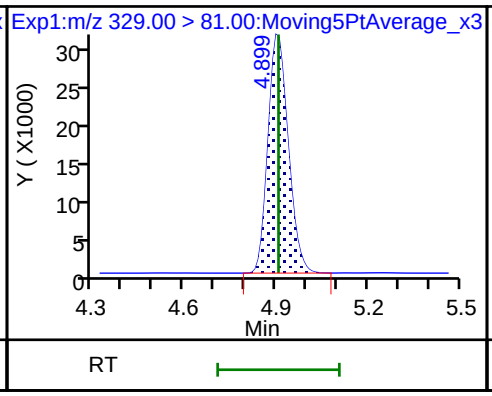
14 PFECA B



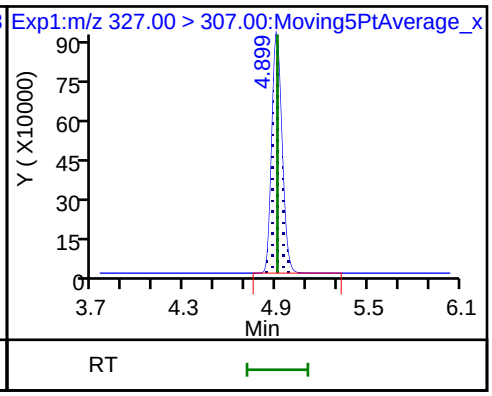
14 PFECA B



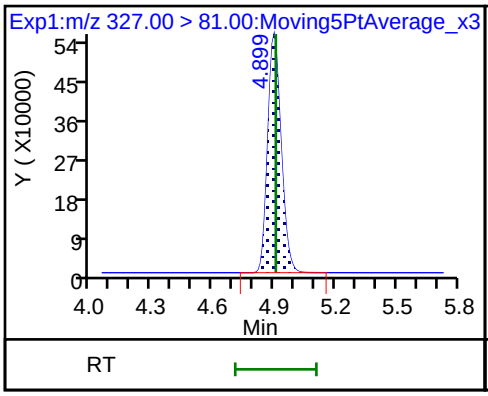
D 16 M2-4:2 FTS



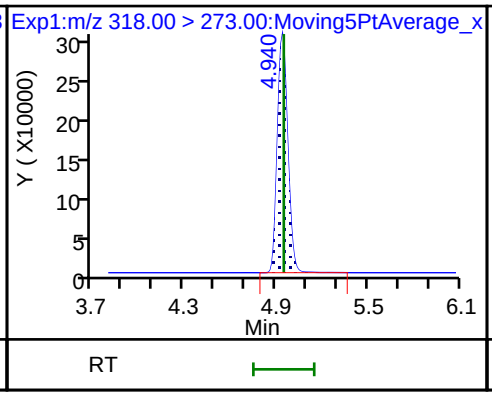
15 4:2 FTS



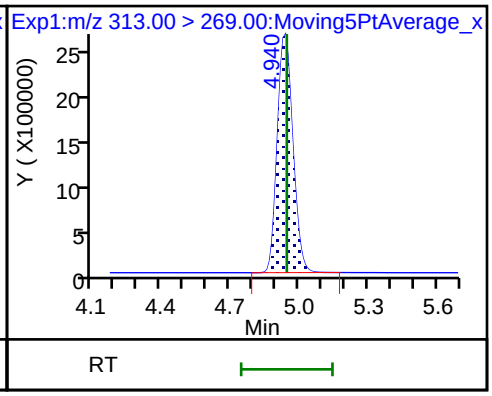
15 4:2 FTS



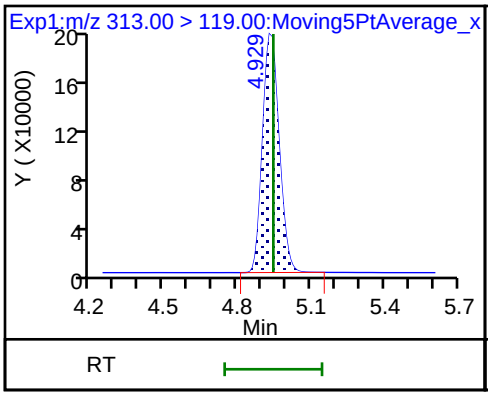
D 19 13C5 PFHxA



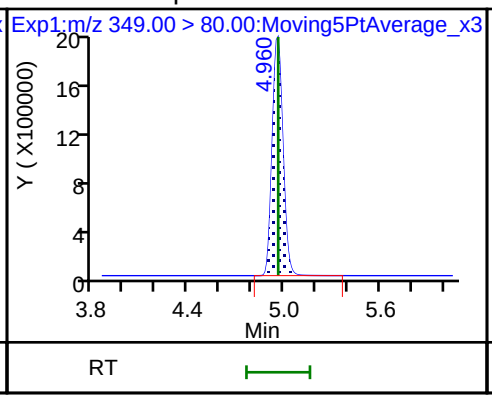
17 Perfluorohexanoic acid



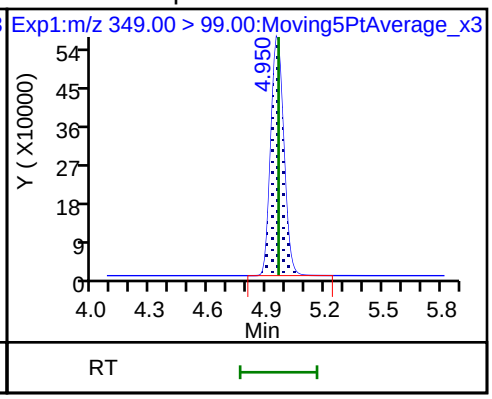
17 Perfluorohexanoic acid



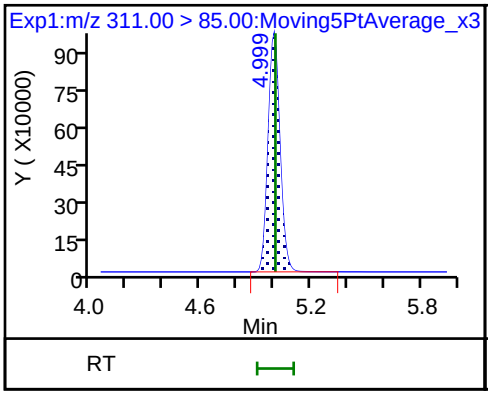
20 Perfluoropentanesulfonic acid



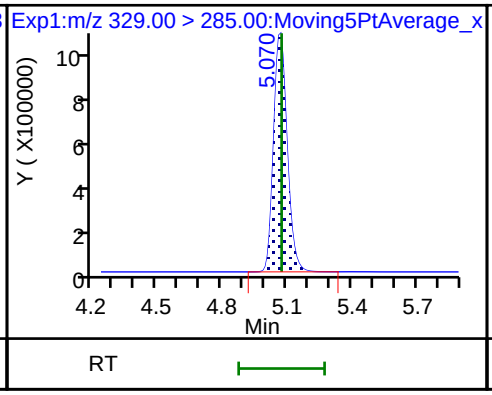
20 Perfluoropentanesulfonic acid



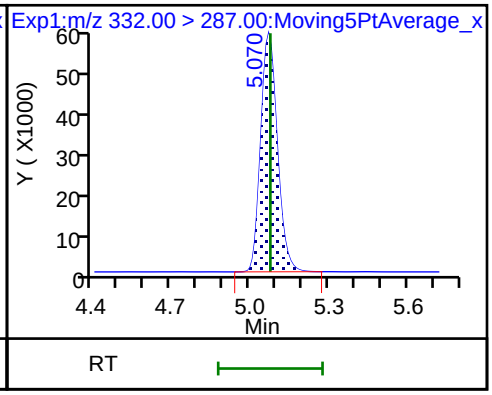
93 PFO3OA



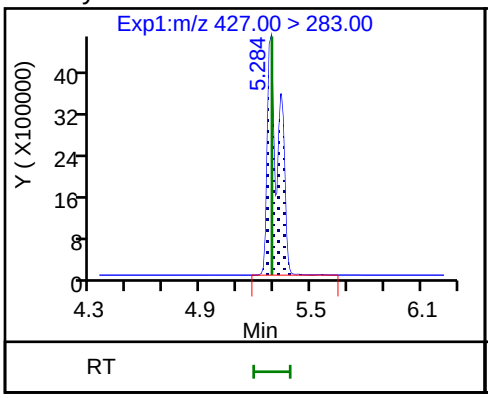
21 HFPO-DA



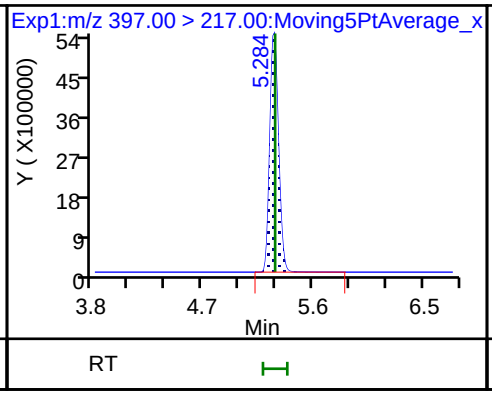
D 22 13C3 HFPO-DA



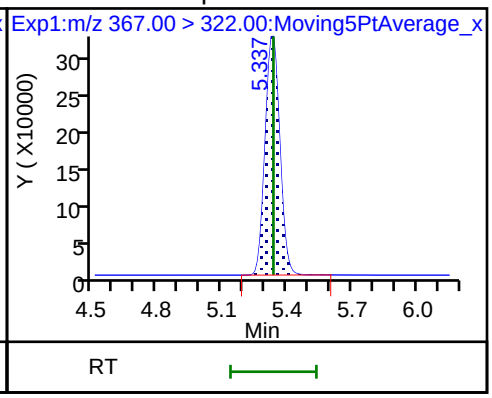
97 Hydro-EVE Acid



94 R-PSDCA



D 24 13C4 PFHpA



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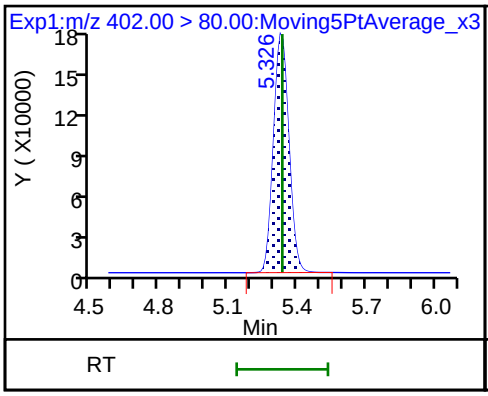
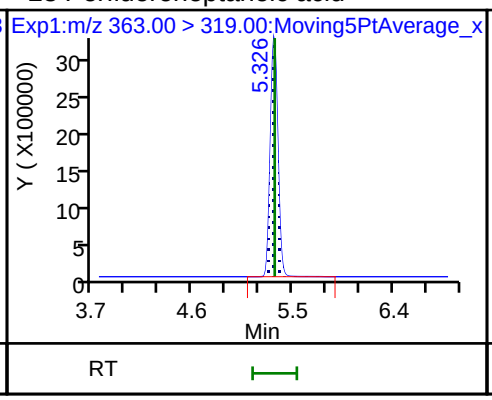
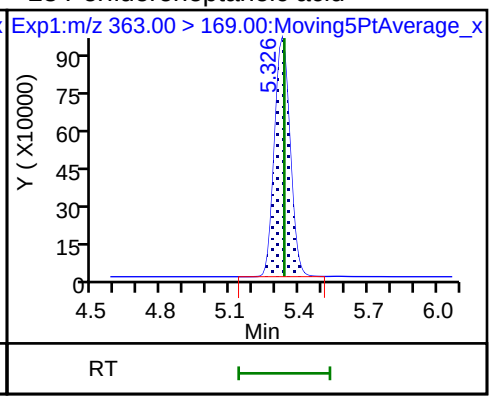


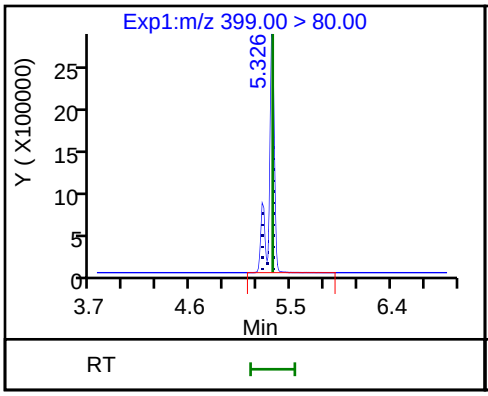
23 Perfluoroheptanoic acid



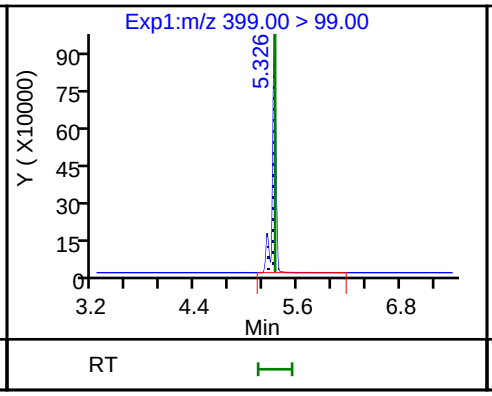
23 Perfluoroheptanoic acid



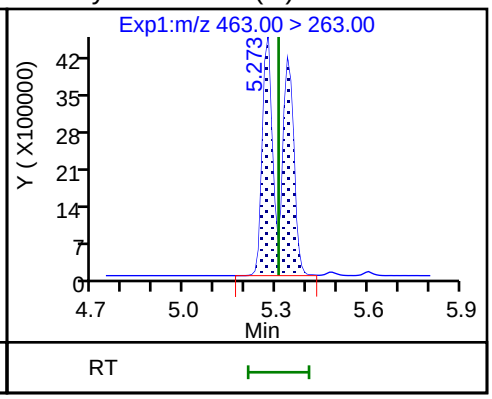
26 Perfluorohexanesulfonic acid



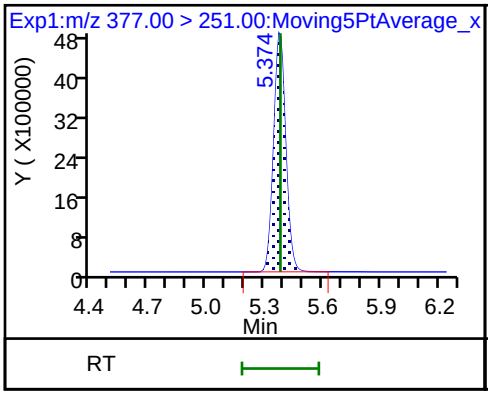
26 Perfluorohexanesulfonic acid



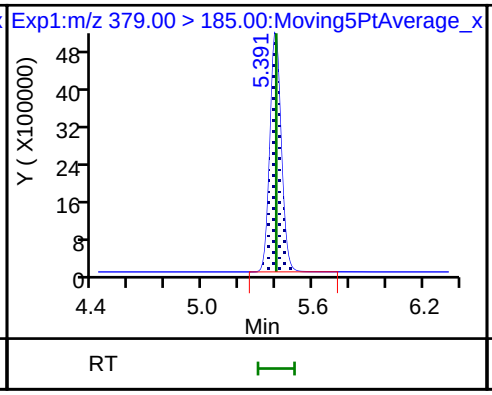
106 Hydro-PS Acid (M)



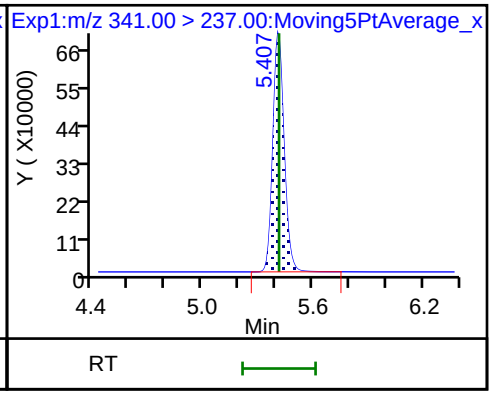
27 DONA



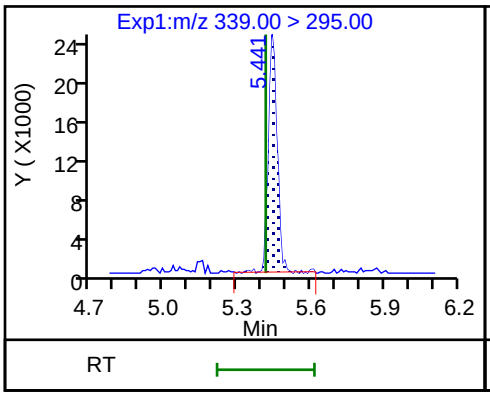
98 PFECA G



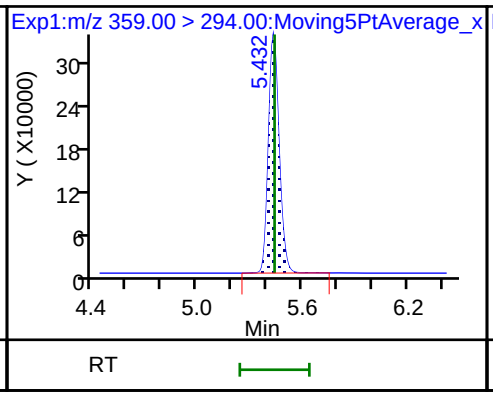
28 5:3 FTCA



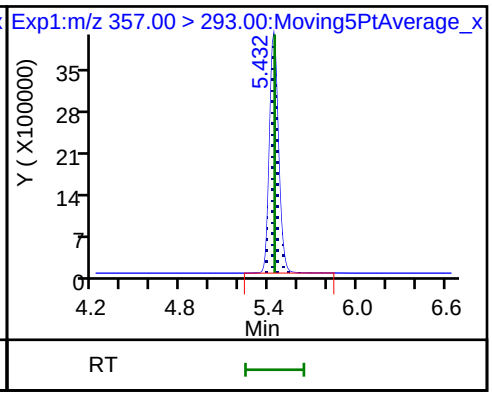
28 5:3 FTCA



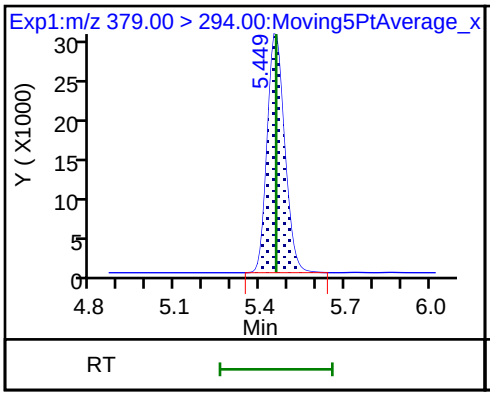
D 30 13C-6:2 FTUCA



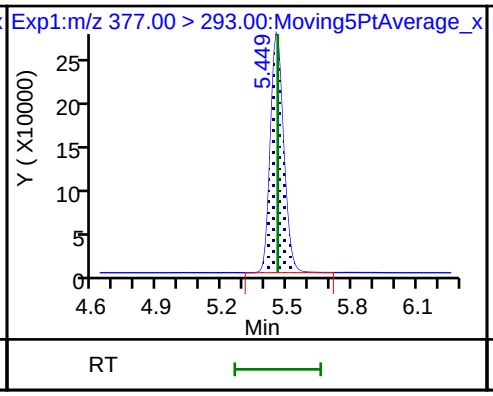
29 6:2 FTUCA



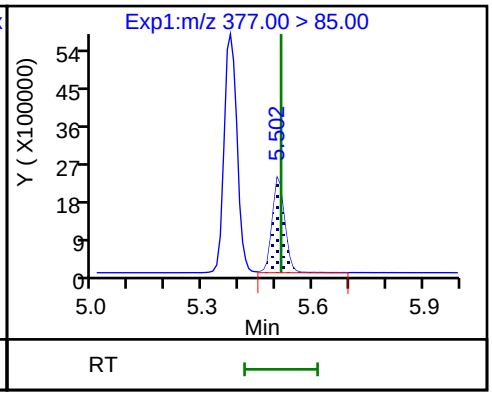
D 31 13C-6:2 FTCA



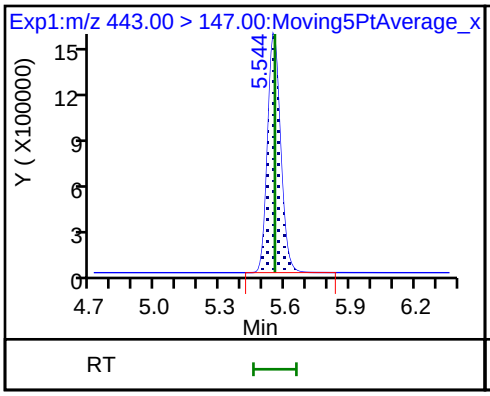
32 6:2 FTCA



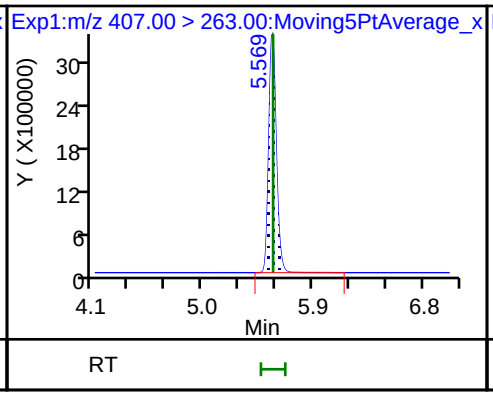
95 PFO4DA



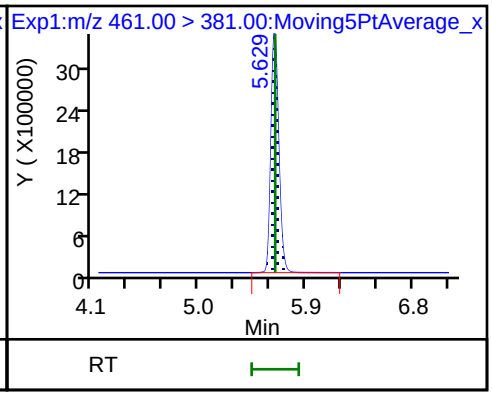
104 PS Acid



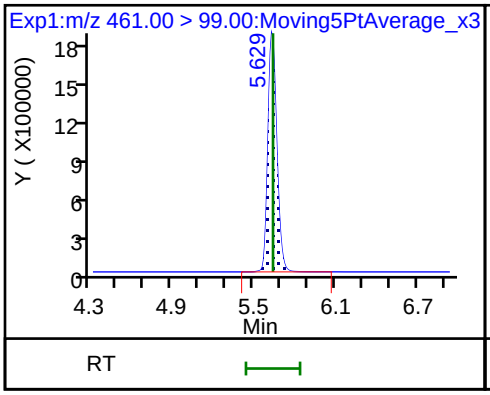
90 EVE Acid



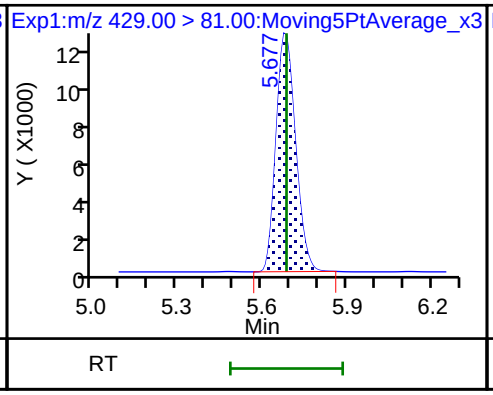
33 PFECHS



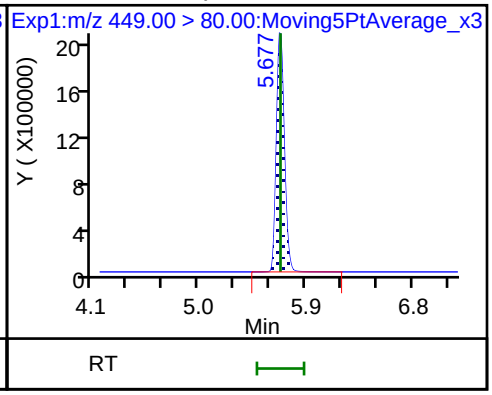
33 PFECHS



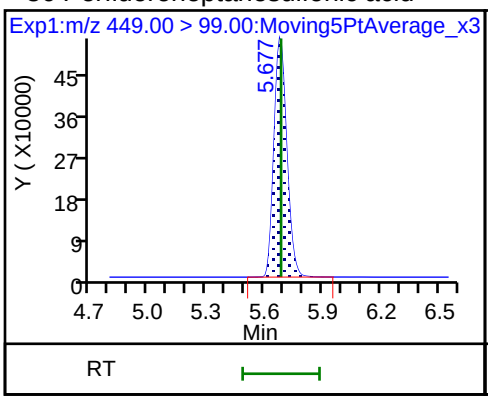
D 35 M2-6:2 FTS



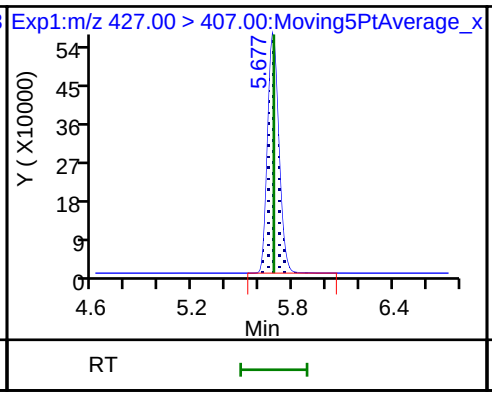
36 Perfluoroheptanesulfonic acid



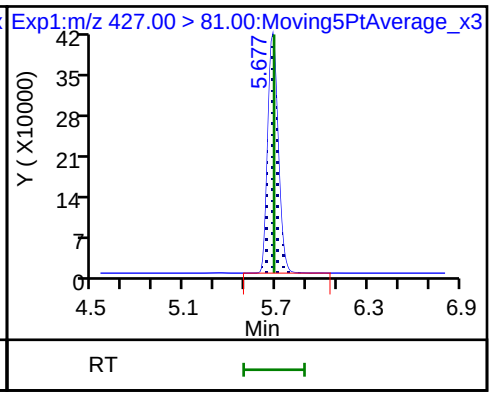
36 Perfluoroheptanesulfonic acid



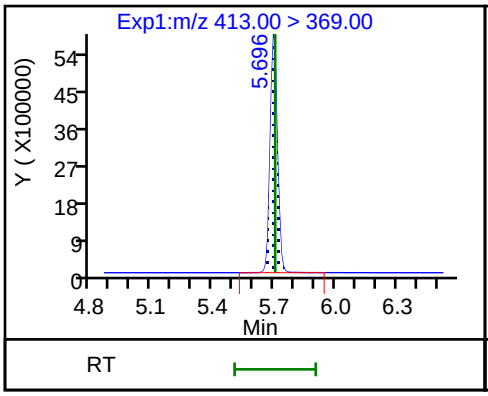
34 6:2 FTS



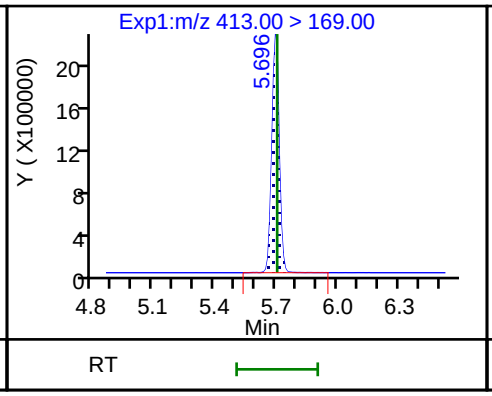
34 6:2 FTS



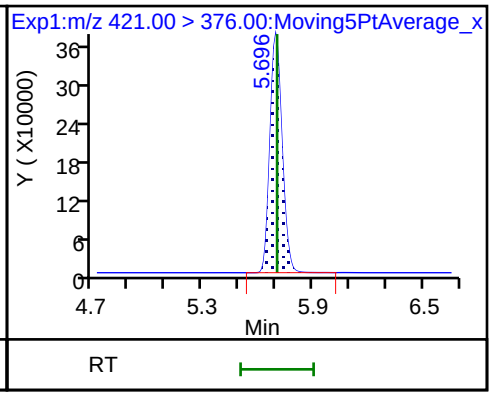
40 Perfluorooctanoic acid



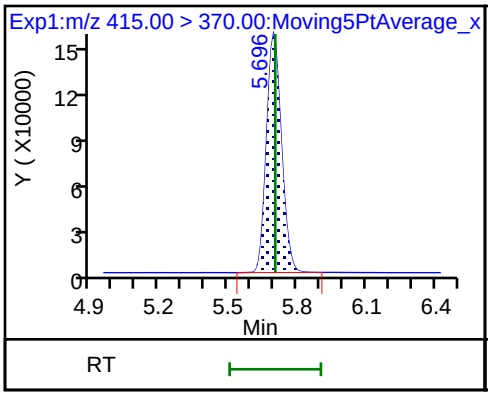
40 Perfluorooctanoic acid



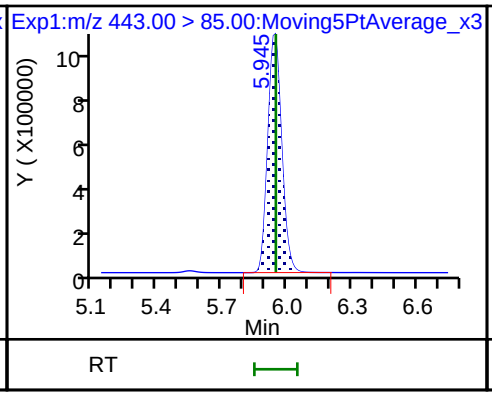
D 37 13C8 PFOA



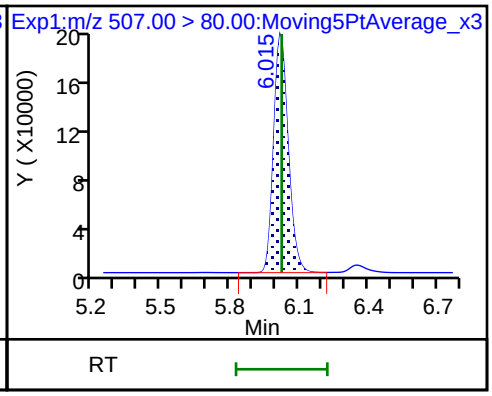
* 38 13C2 PFOA



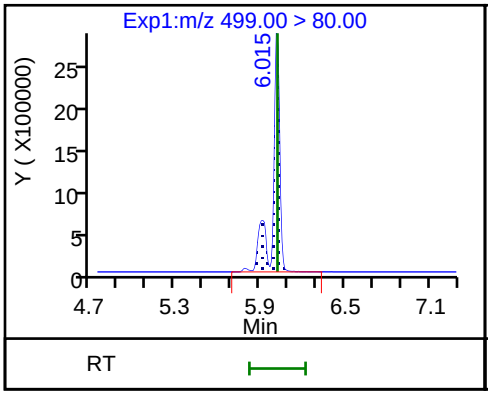
101 TAF



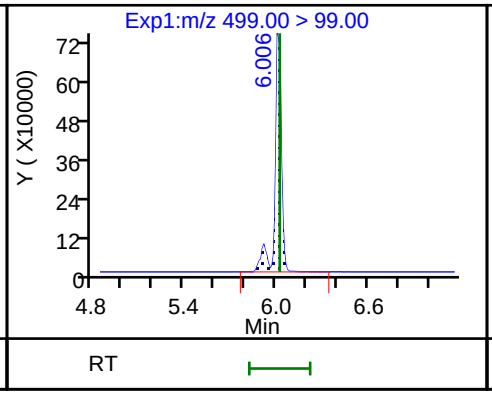
D 41 13C8 PFOS



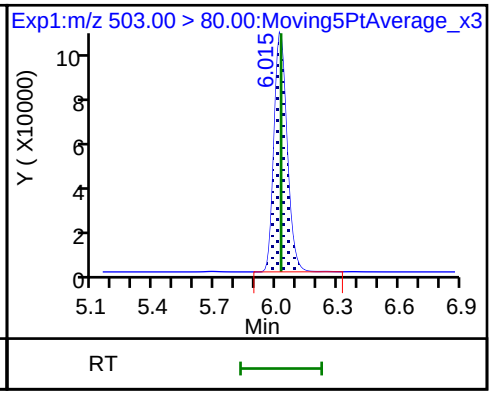
43 Perfluorooctanesulfonic acid



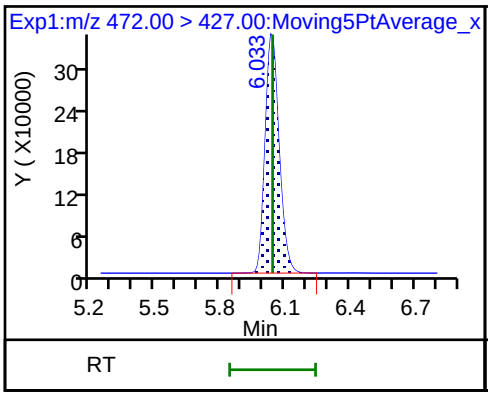
43 Perfluorooctanesulfonic acid



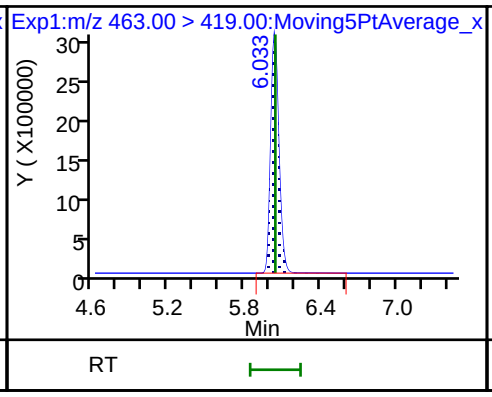
* 42 13C4 PFOS



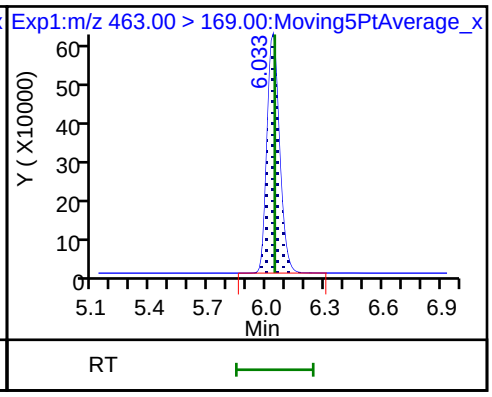
D 45 13C9 PFNA



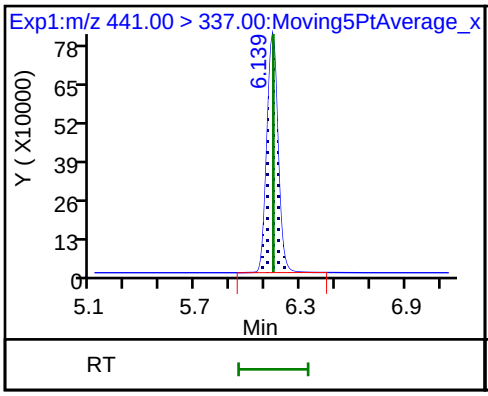
44 Perfluorononanoic acid



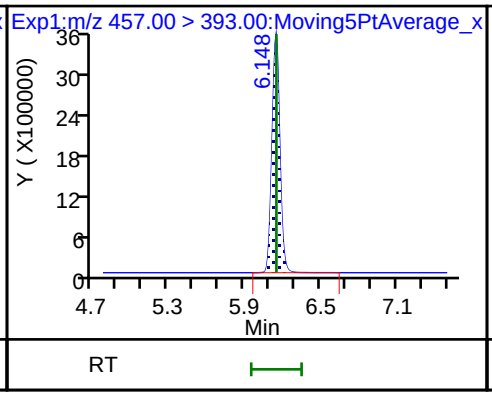
44 Perfluorononanoic acid



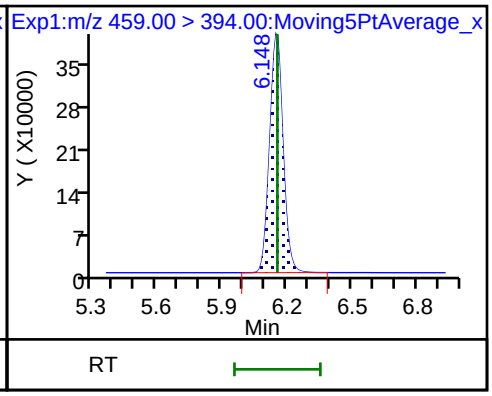
46 7:3 FTCA



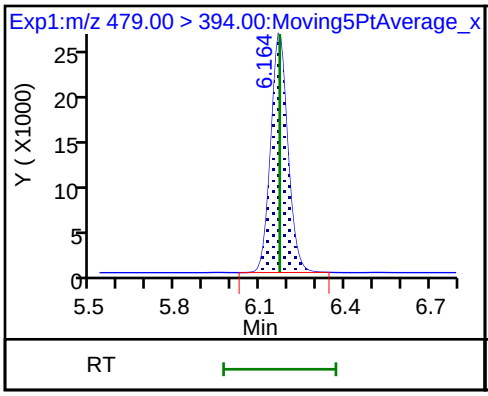
47 8:2 FTUCA



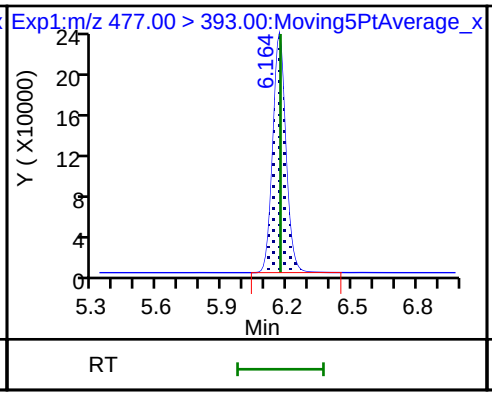
D 48 13C-8:2 FTUCA



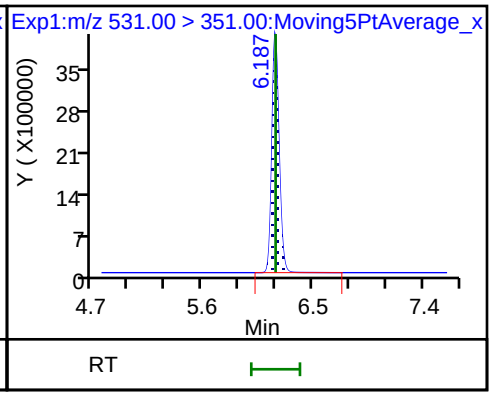
D 50 13C-8:2 FTCA



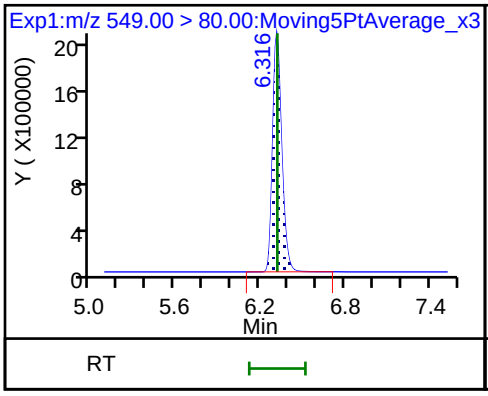
49 8:2 FTCA



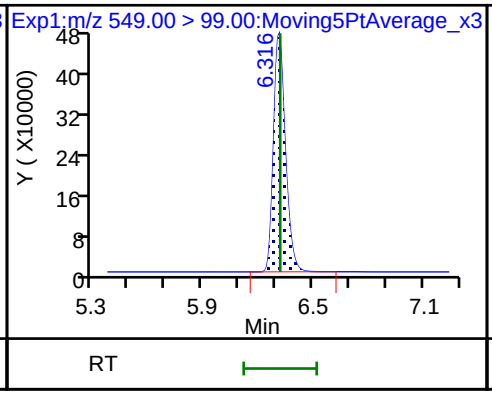
51 9ClFOS



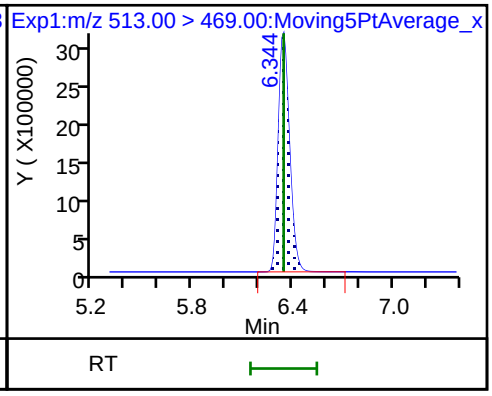
52 Perfluorononanesulfonic acid



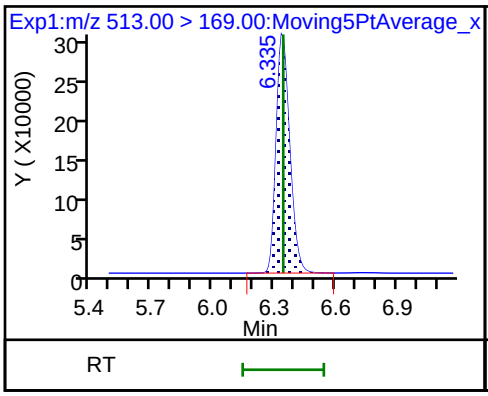
52 Perfluorononanesulfonic acid



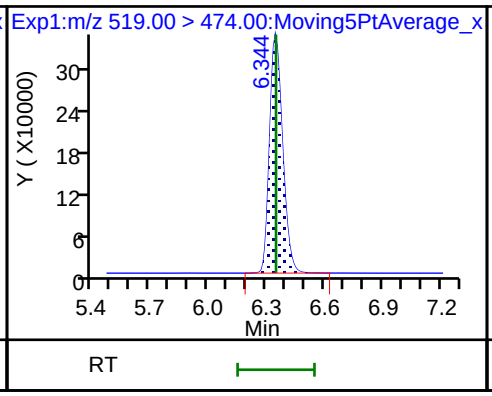
53 Perfluorodecanoic acid



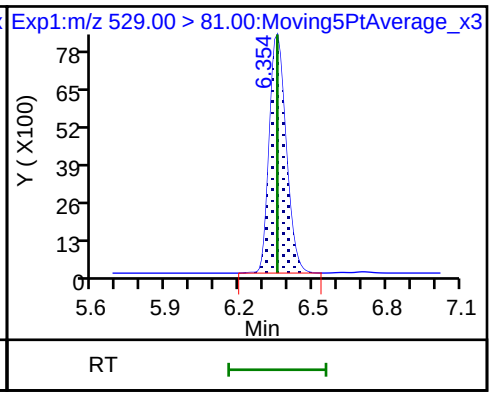
53 Perfluorodecanoic acid



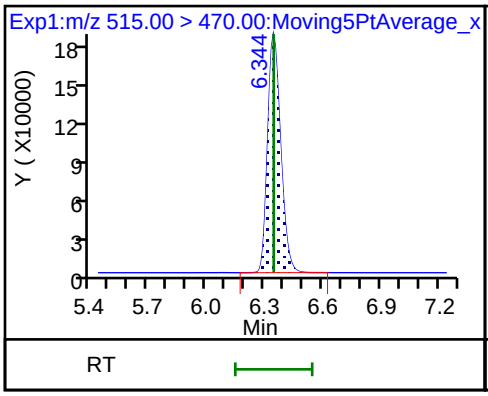
D 54 13C6 PFDA



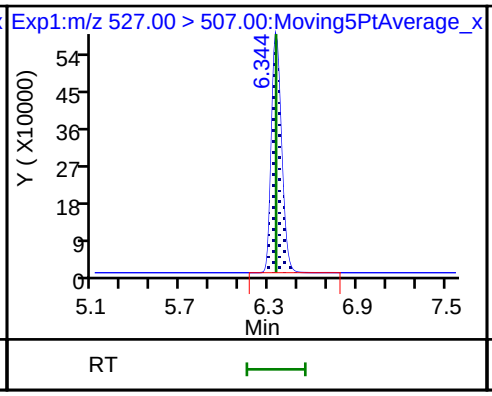
D 57 M2-8:2 FTS



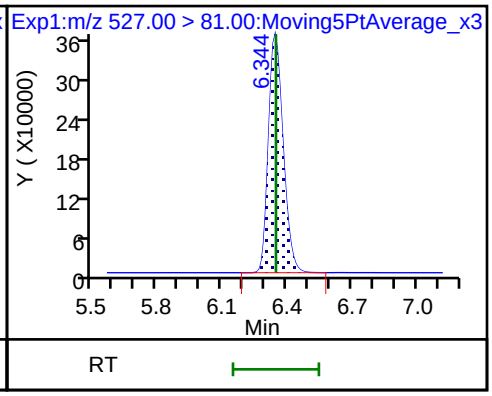
* 55 13C2 PFDA



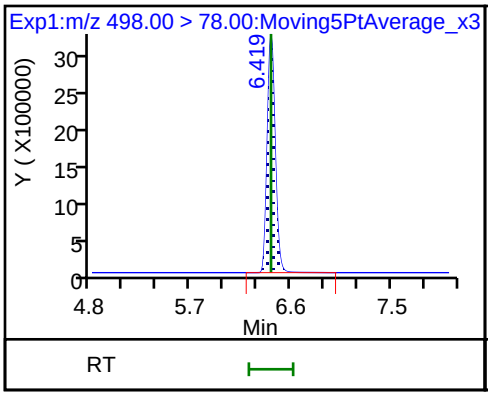
56 8:2 FTS



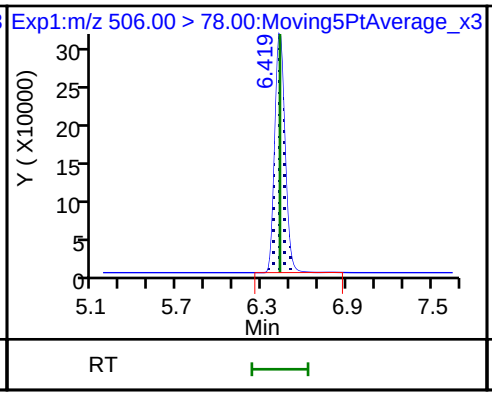
56 8:2 FTS



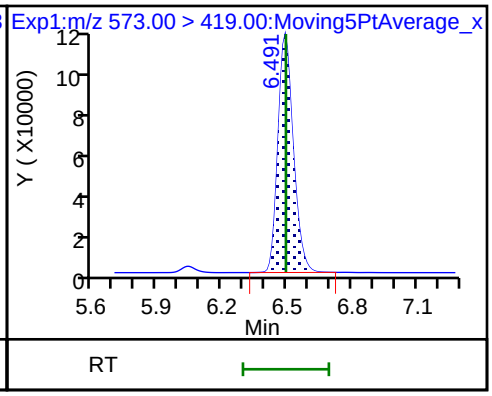
58 Perfluorooctanesulfonamide



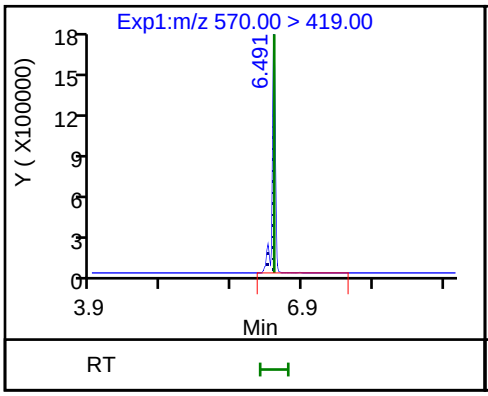
D 59 13C8 FOSA



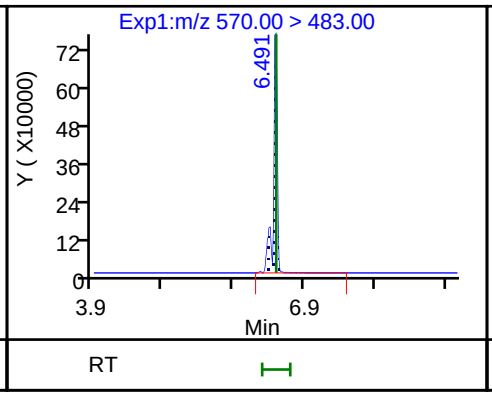
D 61 d3-NMeFOSAA



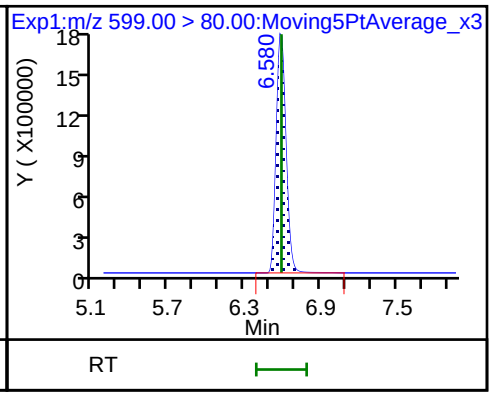
60 NMeFOSAA



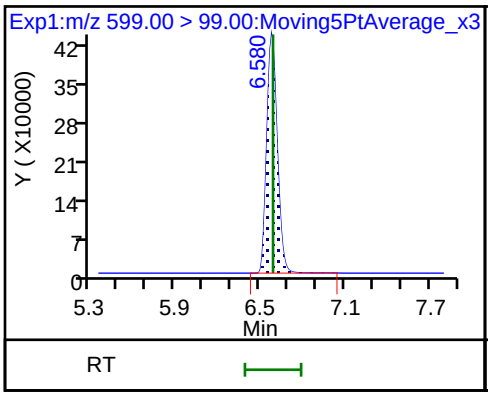
60 NMeFOSAA



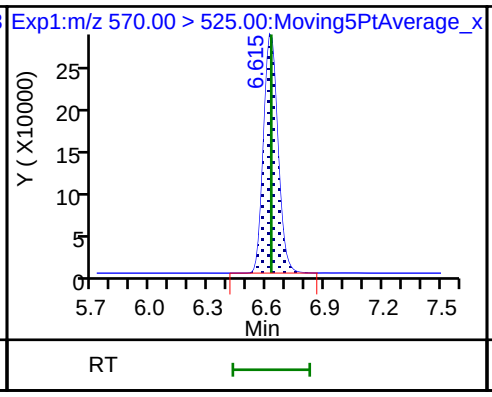
62 Perfluorodecanesulfonic acid



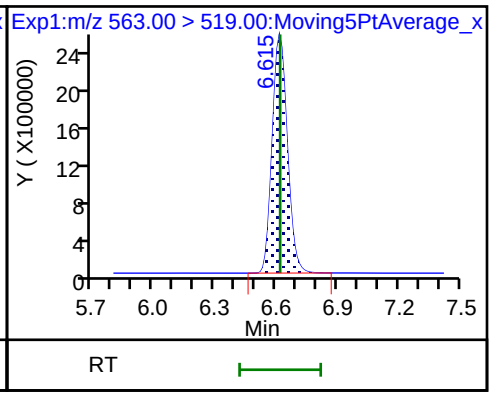
62 Perfluorodecanesulfonic acid



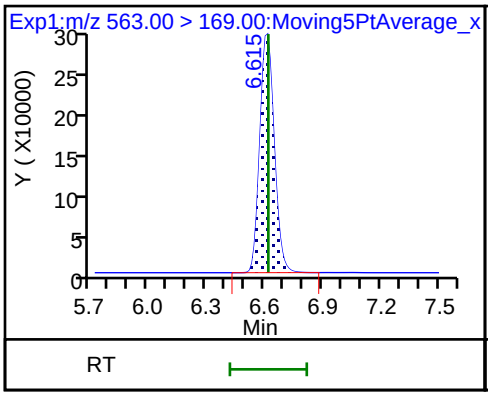
D 65 13C7 PFUnA



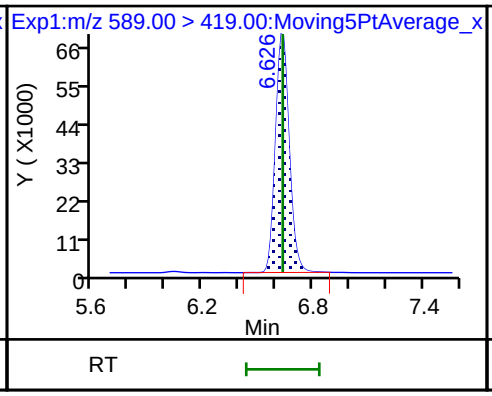
63 Perfluoroundecanoic acid



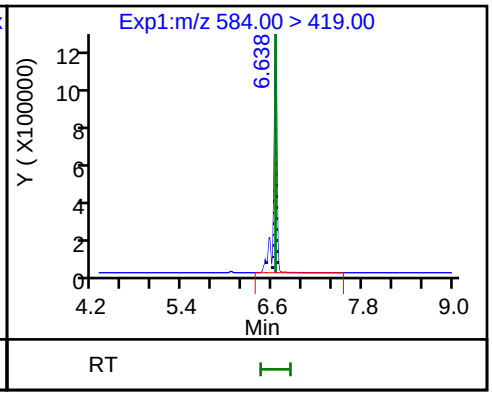
63 Perfluoroundecanoic acid



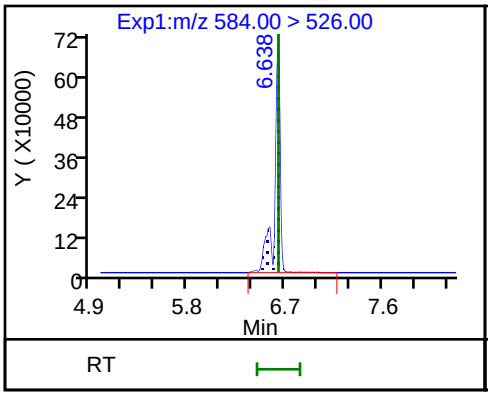
D 66 d5-NEtFOSAA



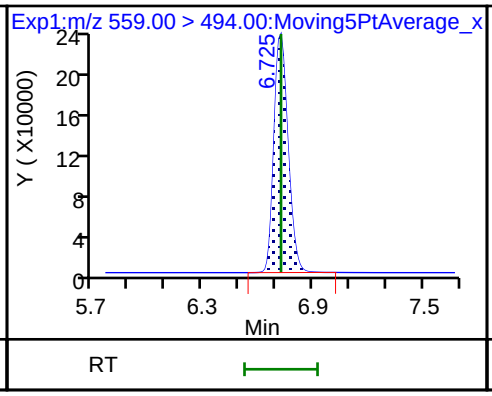
67 NEtFOSAA



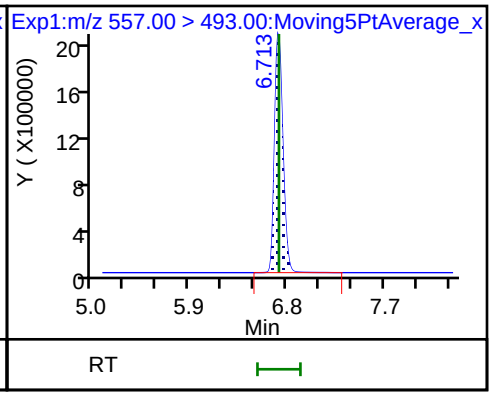
67 NEtFOSAA



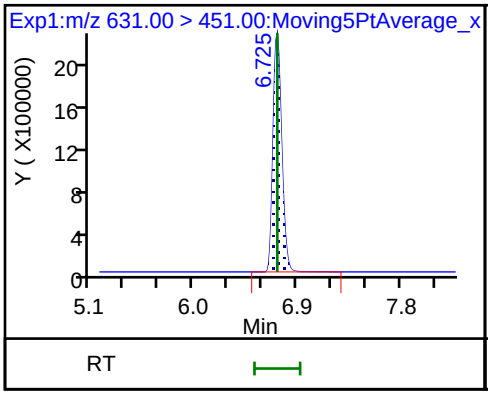
D 70 13C-10:2 FTUCA



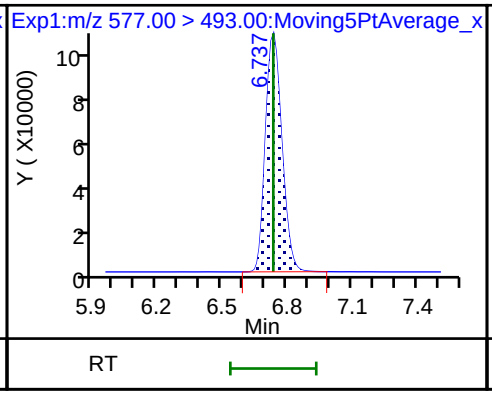
68 10:2 FTUCA



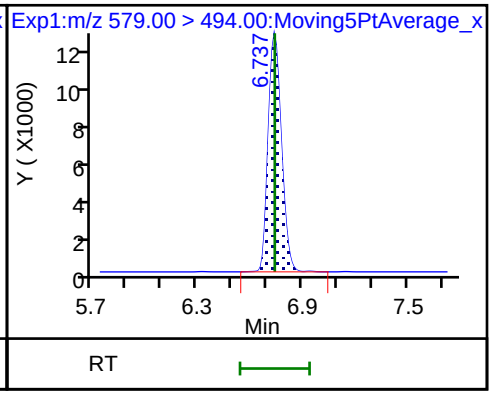
69 11ClFOS



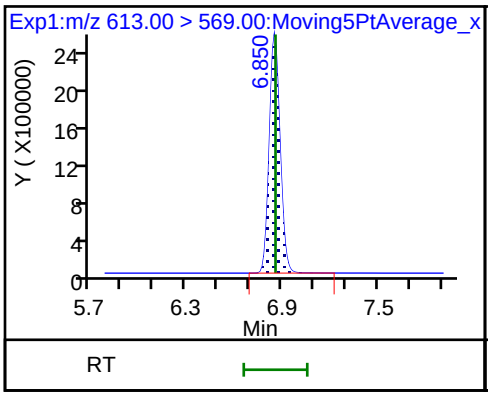
71 10:2 FTCA



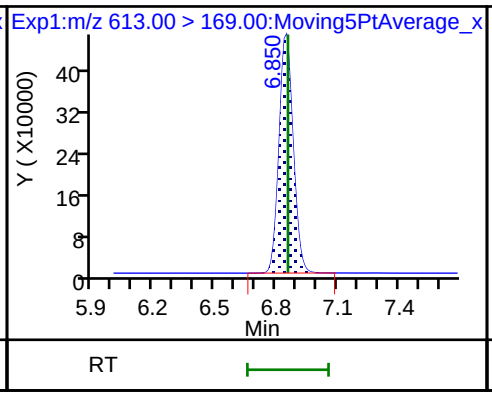
D 72 13C-10:2 FTCA



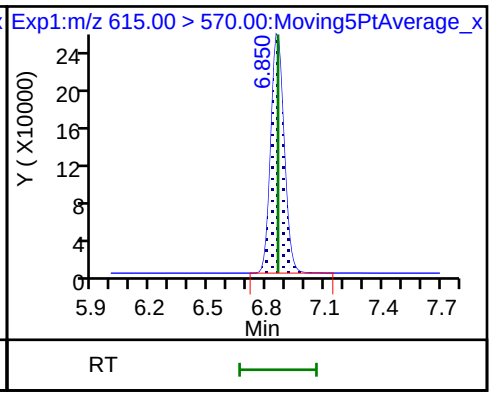
73 Perfluorododecanoic acid



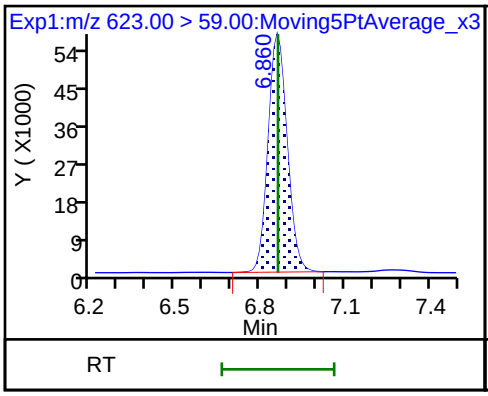
73 Perfluorododecanoic acid



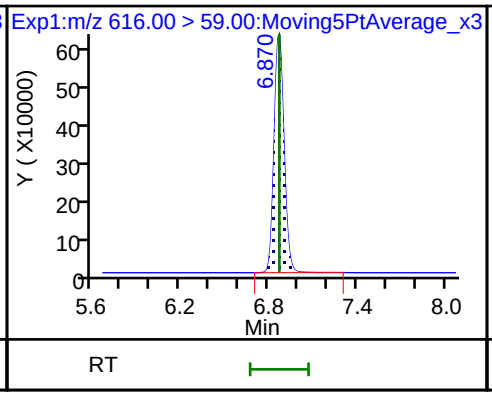
D 74 13C2-PFDoDA



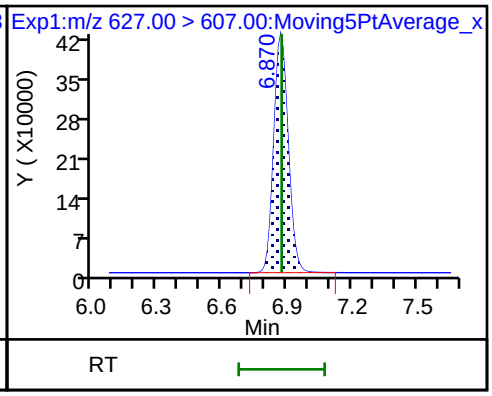
D 76 d7-N-MeFOSE-M



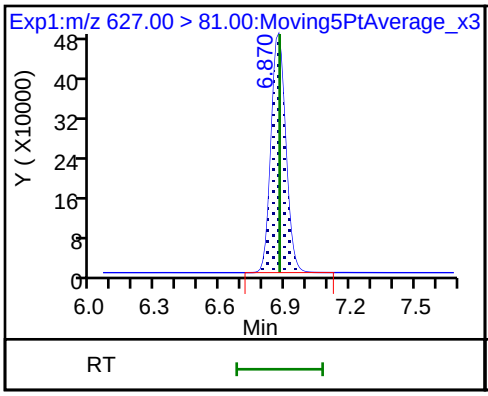
77 N-MeFOSE-M



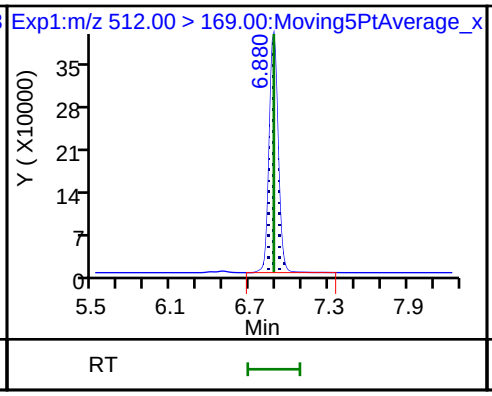
75 10:2 FTS



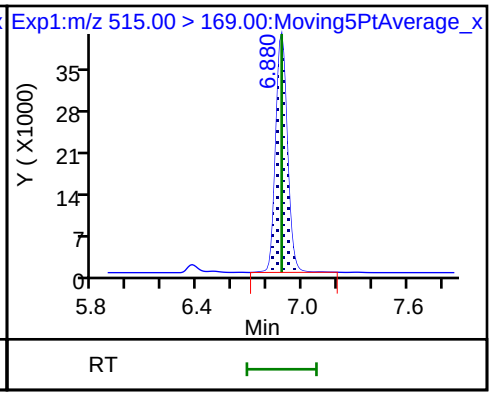
75 10:2 FTS



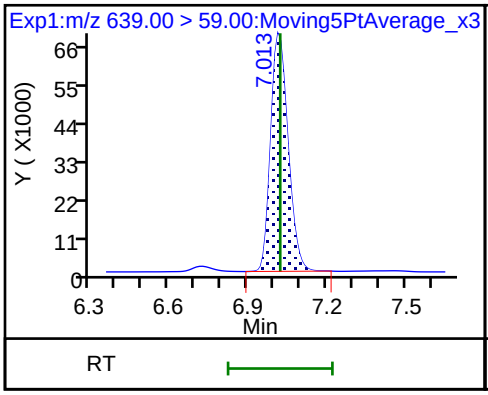
78 NMeFOSA



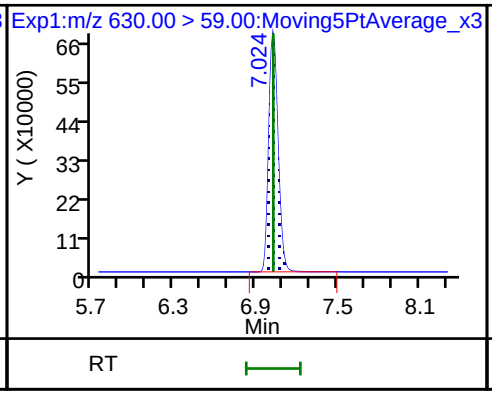
D 79 d3-NMePFOSA



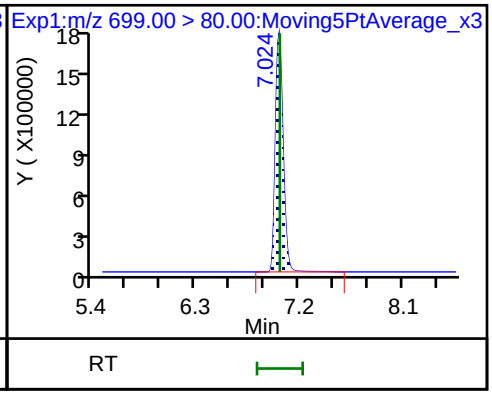
D 81 d9-N-EtFOSE-M



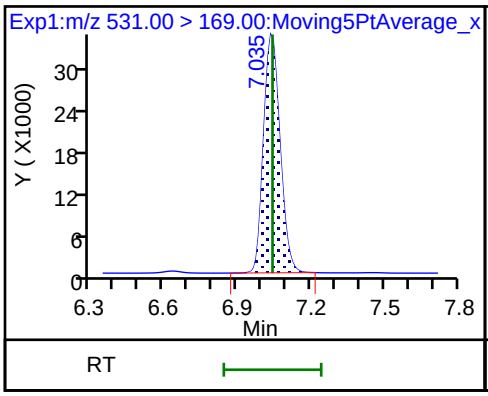
82 N-EtFOSE-M



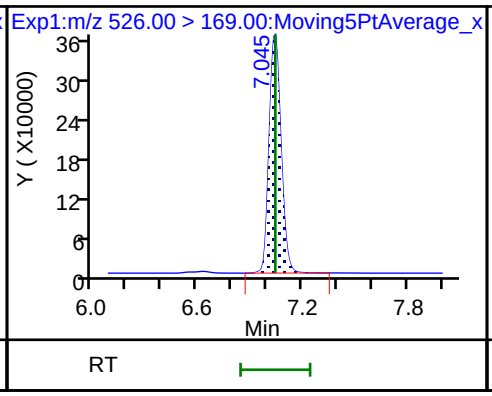
80 PFDoS



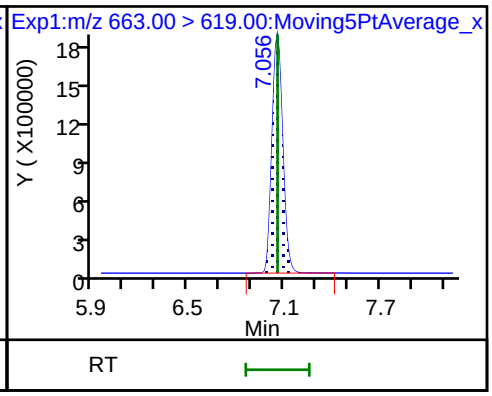
D 83 d5-NEtPFOSA



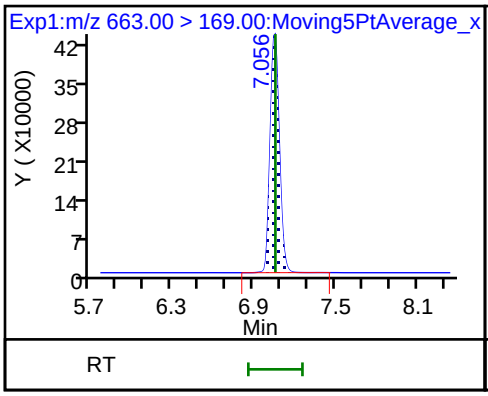
84 N-EtFOSA-M



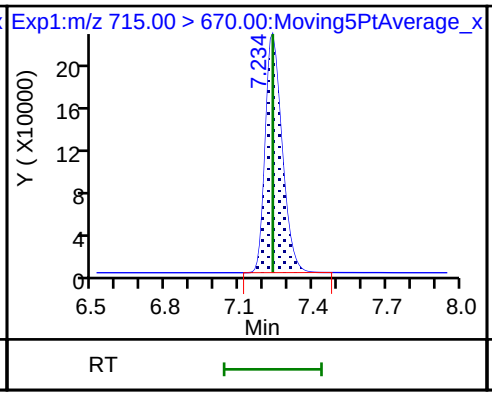
85 Perfluorotridecanoic acid



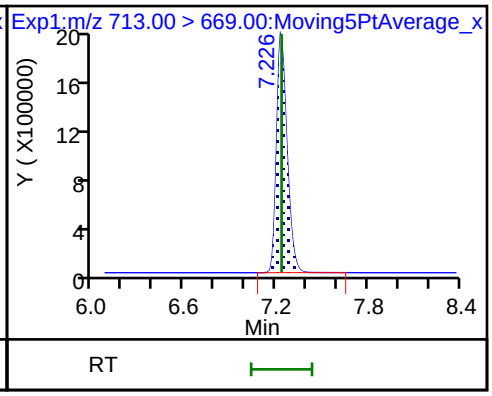
85 Perfluorotridecanoic acid



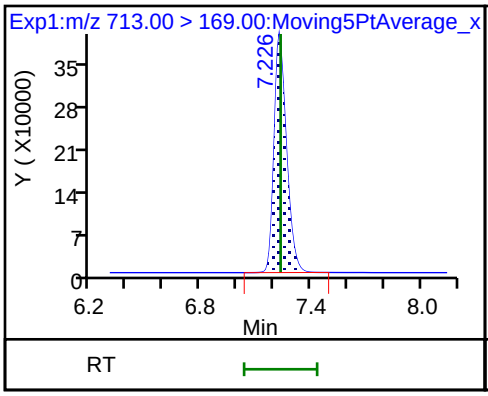
D 87 13C2 PFTeDA



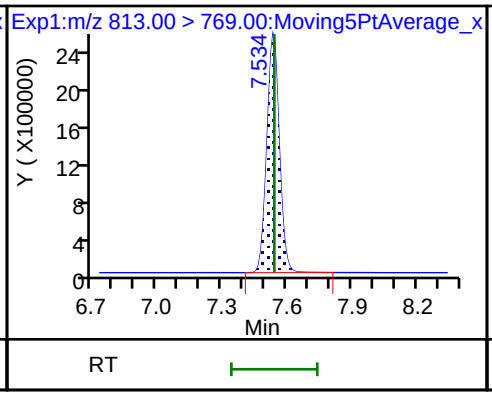
86 Perfluorotetradecanoic acid



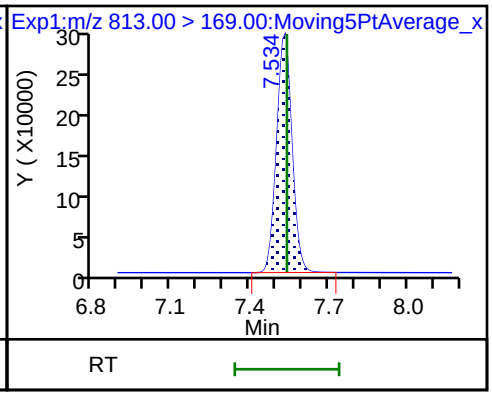
86 Perfluorotetradecanoic acid



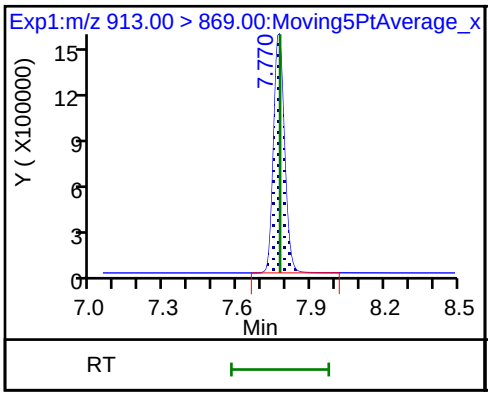
88 Perfluorohexadecanoic acid



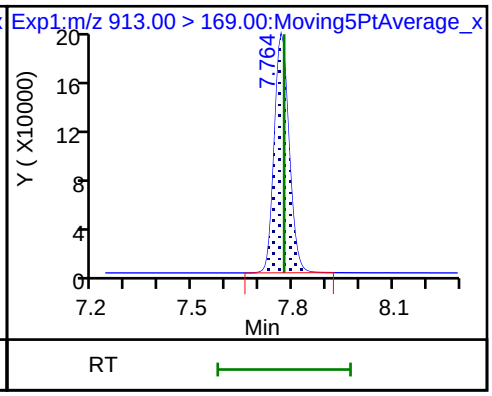
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

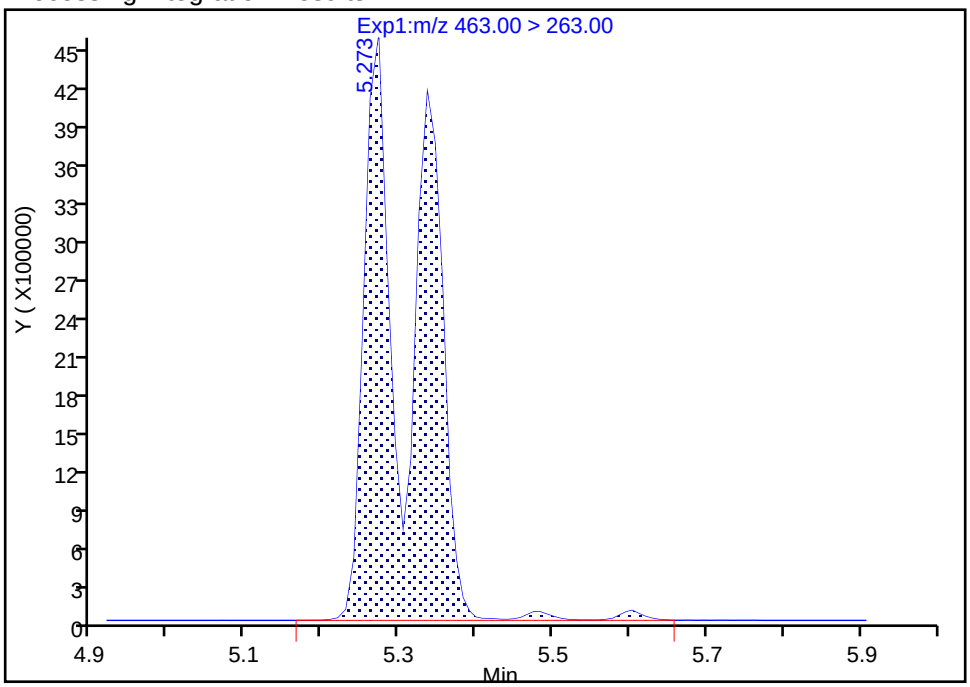
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d				
Injection Date:	22-Feb-2022 16:18:36	Instrument ID:	30733		
Lims ID:	IC CAL7				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20008	Worklist Smp#:	7
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

106 Hydro-PS Acid, CAS: 749836-20-2

Signal: 1

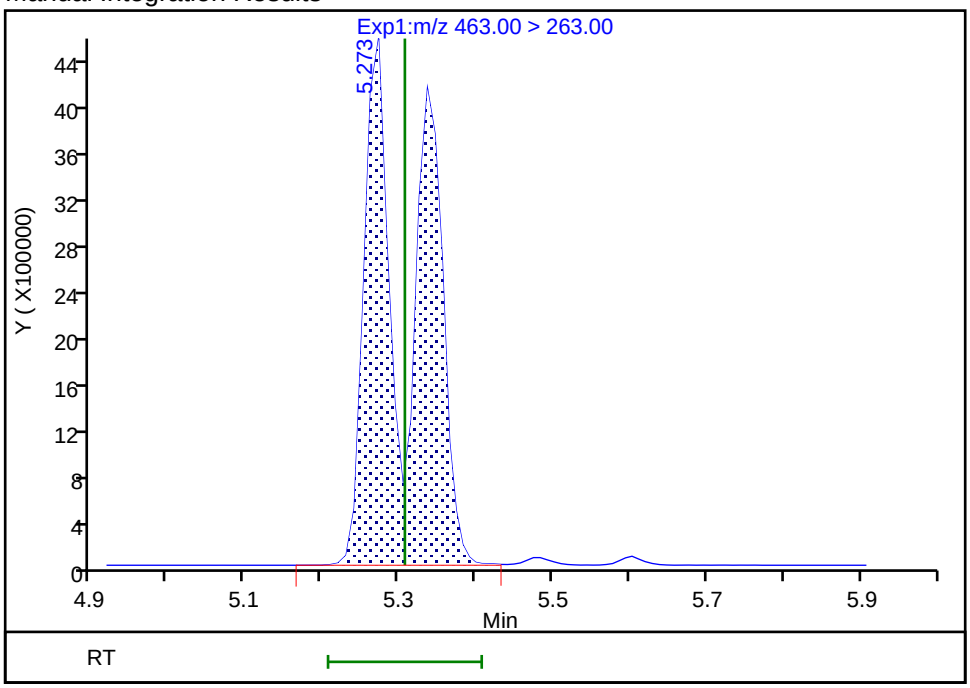
Processing Integration Results

RT: 5.27
Area: 20889712
Amount: 109.6967
Amount Units: ng/ml



Manual Integration Results

RT: 5.27
Area: 20563075
Amount: 108.3395
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 20:56:36

Audit Action: Manually Integrated Audit Reason: Split Peak

Calibration / MTP

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

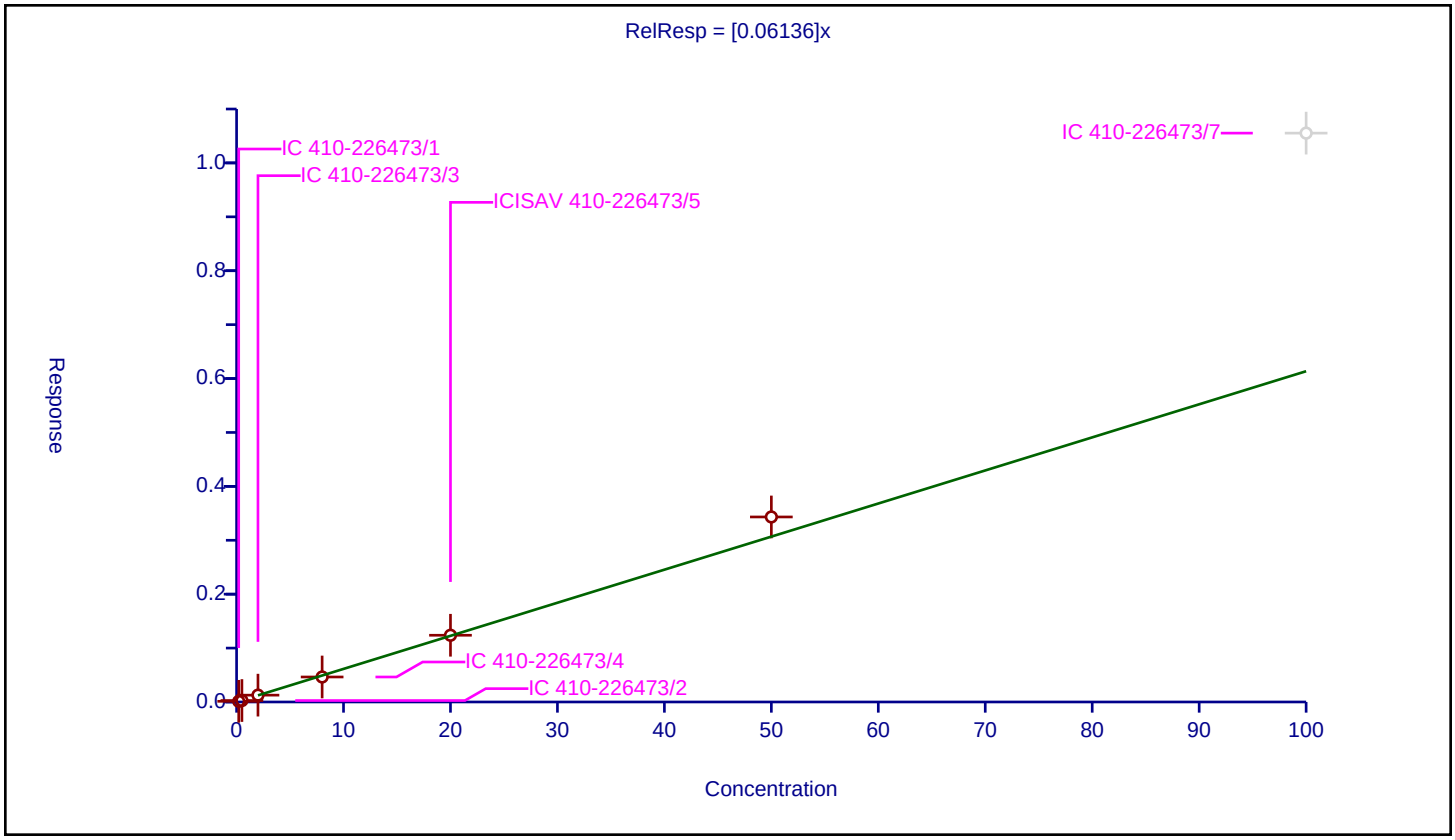
Curve Coefficients

Intercept:	0
Slope:	0.06136

Error Coefficients

Standard Error:	250000
Relative Standard Error:	8.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.012514	10.0	1539871.0	0.06257	Y
2	IC 410-226473/2	0.5	0.026769	10.0	1665382.0	0.053537	Y
3	IC 410-226473/3	2.0	0.127012	10.0	1648826.0	0.063506	Y
4	IC 410-226473/4	8.0	0.463845	10.0	1637723.0	0.057981	Y
5	ICISAV 410-226473/5	20.0	1.238185	10.0	1522365.0	0.061909	Y
6	IC 410-226473/6	50.0	3.432444	10.0	1517458.0	0.068649	Y
7	IC 410-226473/7	100.0	10.552781	10.0	1478324.0	0.105528	N



Calibration / PPF Acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

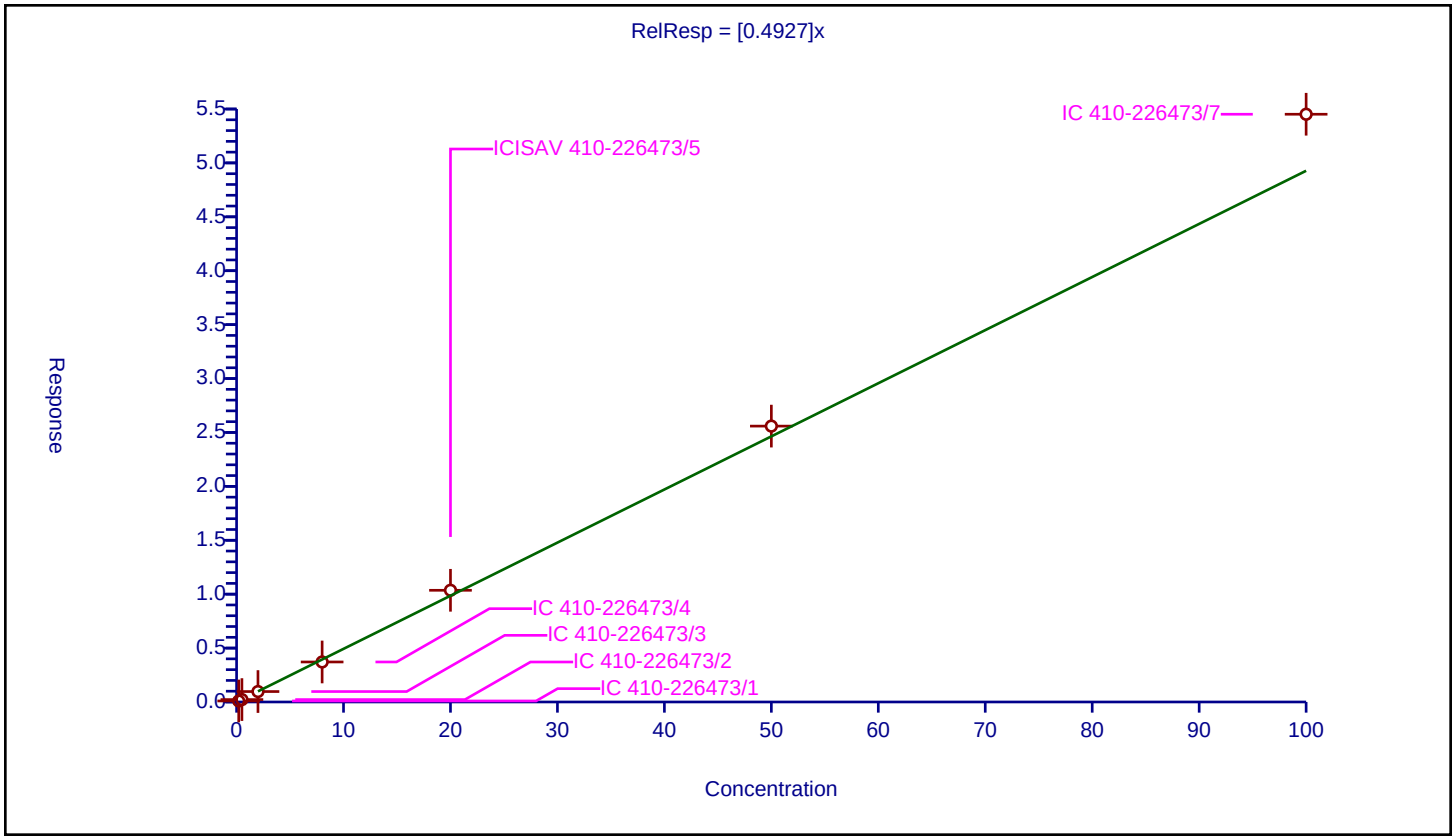
Curve Coefficients

Intercept:	0
Slope:	0.4927

Error Coefficients

Standard Error:	3720000
Relative Standard Error:	6.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.095372	10.0	1539871.0	0.476858	Y
2	IC 410-226473/2	0.5	0.224417	10.0	1665382.0	0.448834	Y
3	IC 410-226473/3	2.0	0.968489	10.0	1648826.0	0.484245	Y
4	IC 410-226473/4	8.0	3.712288	10.0	1637723.0	0.464036	Y
5	ICISAV 410-226473/5	20.0	10.360334	10.0	1522365.0	0.518017	Y
6	IC 410-226473/6	50.0	25.589433	10.0	1517458.0	0.511789	Y
7	IC 410-226473/7	100.0	54.51579	10.0	1478324.0	0.545158	Y



Calibration / PFMOAA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

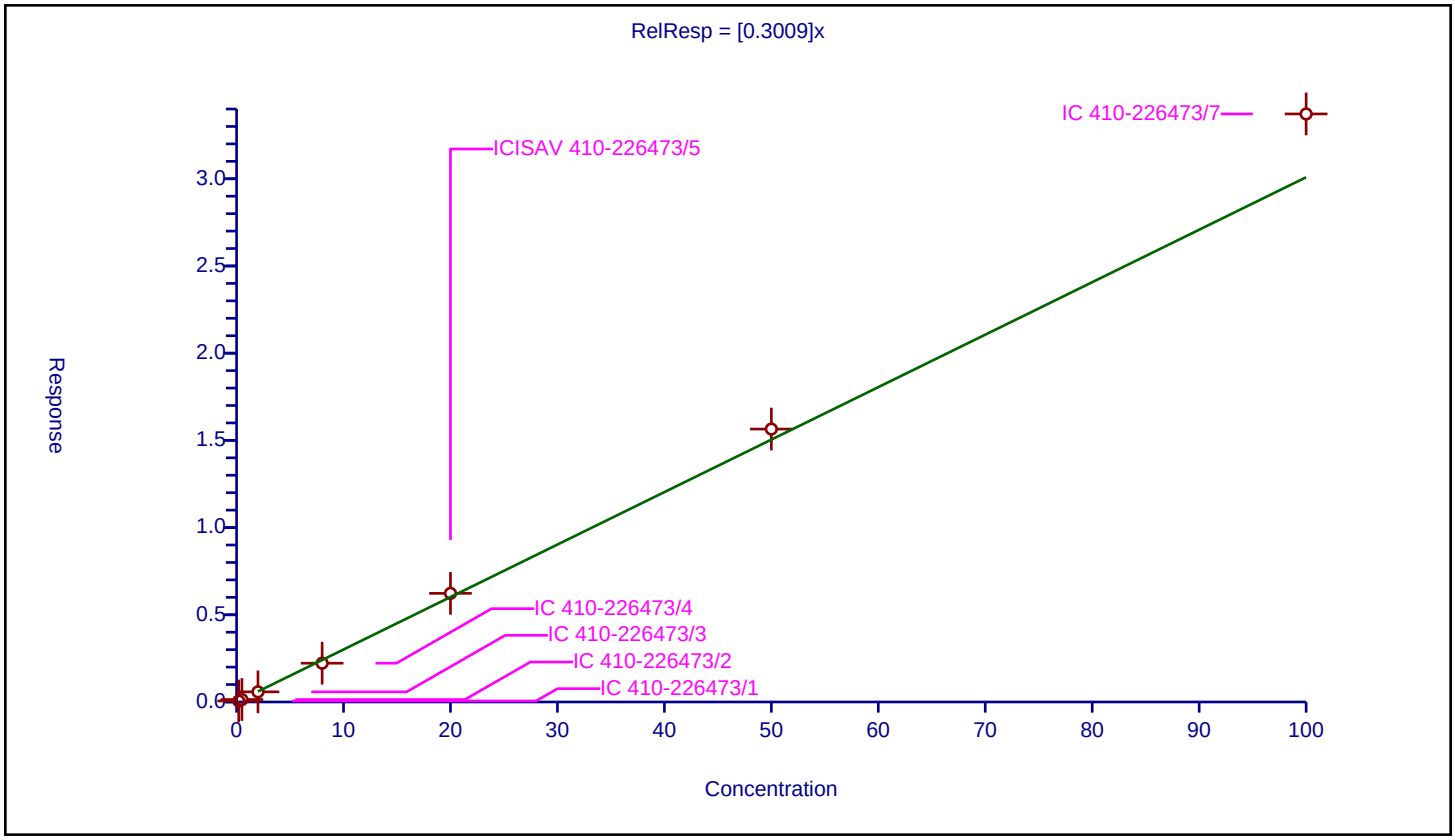
Curve Coefficients

Intercept:	0
Slope:	0.3009

Error Coefficients

Standard Error:	2290000
Relative Standard Error:	6.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.058336	10.0	1539871.0	0.29168	Y
2	IC 410-226473/2	0.5	0.141931	10.0	1665382.0	0.283863	Y
3	IC 410-226473/3	2.0	0.582123	10.0	1648826.0	0.291062	Y
4	IC 410-226473/4	8.0	2.223276	10.0	1637723.0	0.277909	Y
5	ICISAV 410-226473/5	20.0	6.227817	10.0	1522365.0	0.311391	Y
6	IC 410-226473/6	50.0	15.648637	10.0	1517458.0	0.312973	Y
7	IC 410-226473/7	100.0	33.717304	10.0	1478324.0	0.337173	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

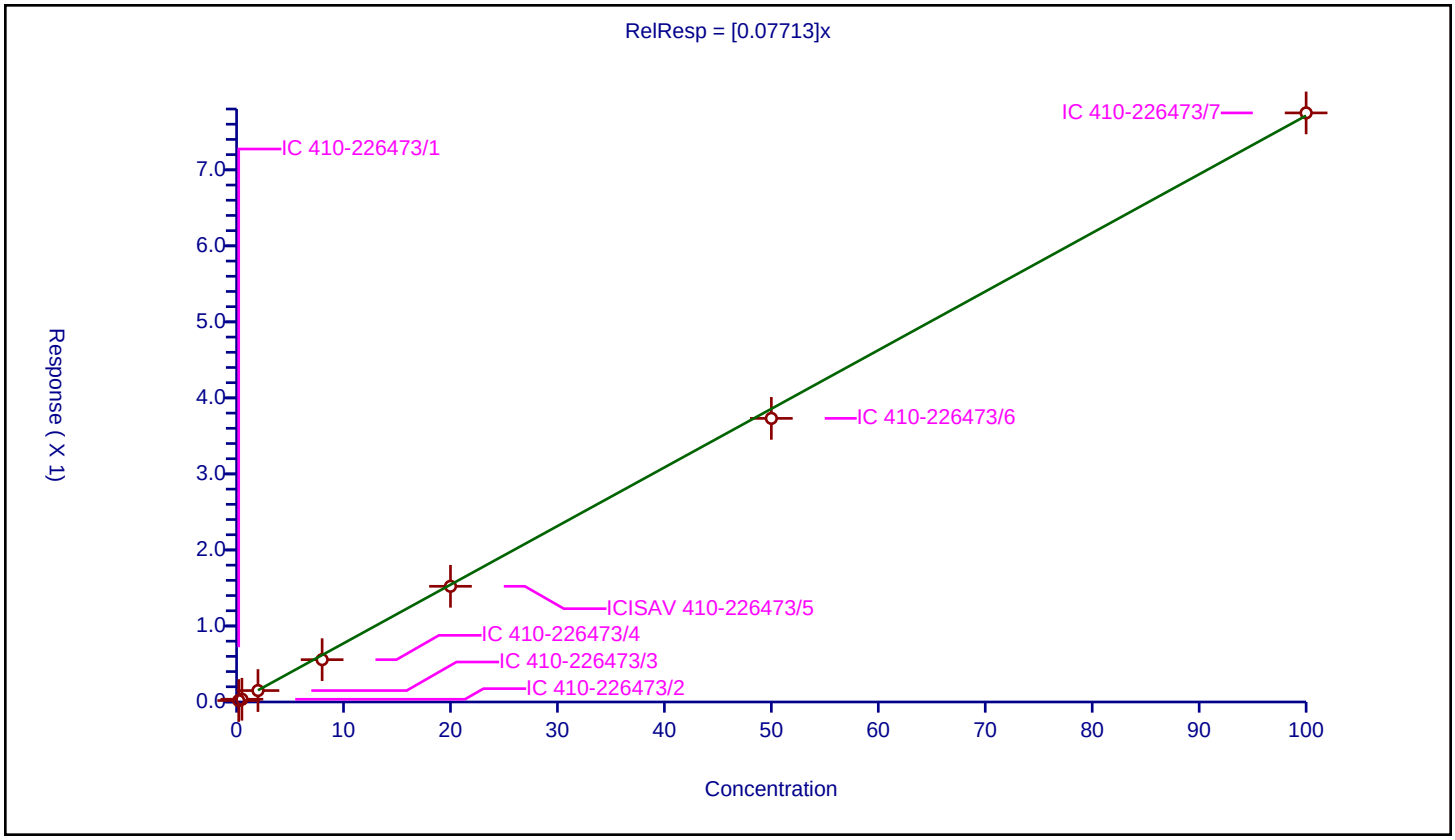
Curve Coefficients

Intercept:	0
Slope:	0.07713

Error Coefficients

Standard Error:	532000
Relative Standard Error:	10.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.018995	10.0	1539871.0	0.094975	Y
2	IC 410-226473/2	0.5	0.035938	10.0	1665382.0	0.071875	Y
3	IC 410-226473/3	2.0	0.150465	10.0	1648826.0	0.075232	Y
4	IC 410-226473/4	8.0	0.556907	10.0	1637723.0	0.069613	Y
5	ICISAV 410-226473/5	20.0	1.521889	10.0	1522365.0	0.076094	Y
6	IC 410-226473/6	50.0	3.730528	10.0	1517458.0	0.074611	Y
7	IC 410-226473/7	100.0	7.74864	10.0	1478324.0	0.077486	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

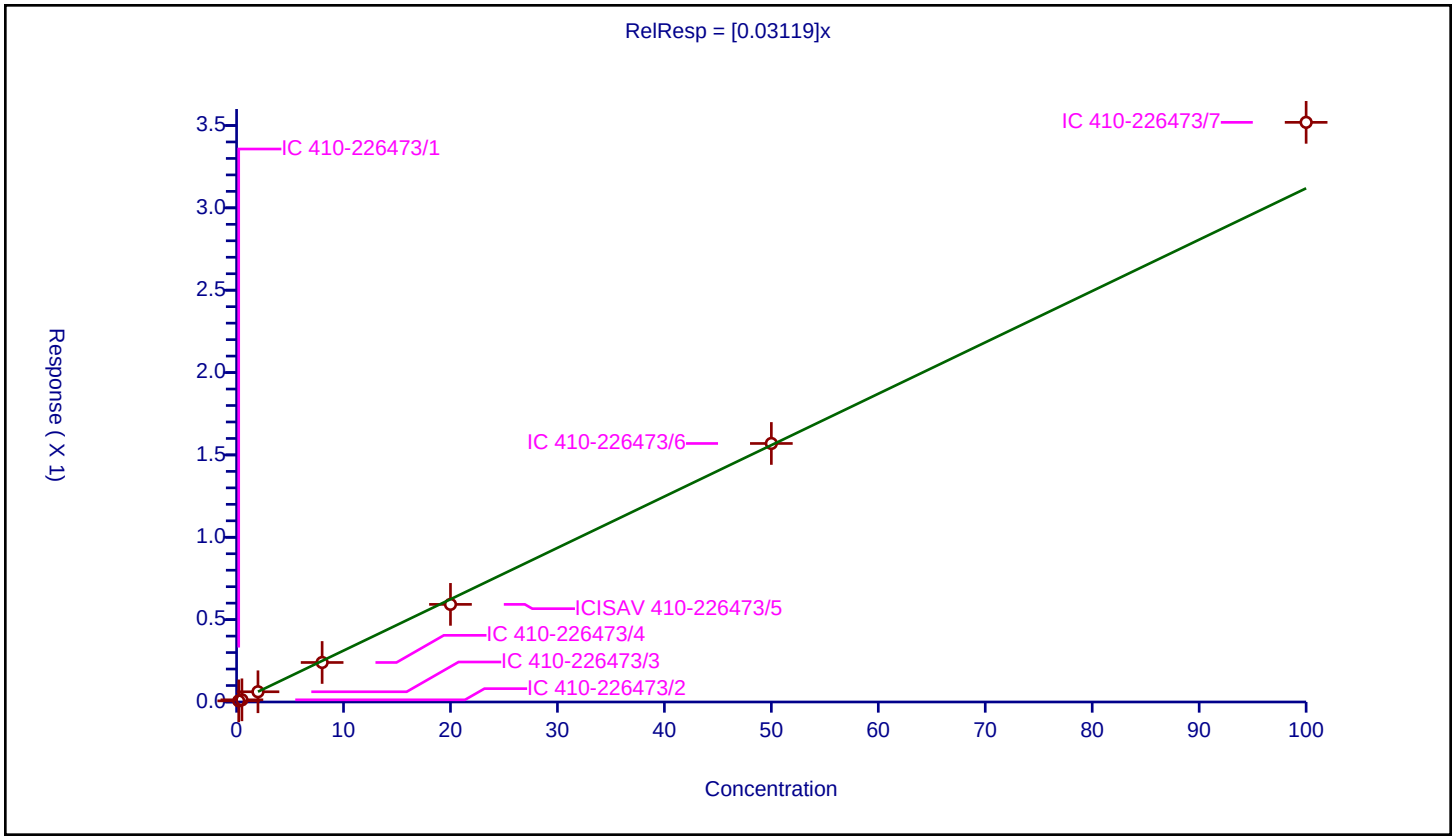
Curve Coefficients

Intercept:	0
Slope:	0.03119

Error Coefficients

Standard Error:	163000
Relative Standard Error:	9.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.006926	9.36	944636.0	0.03463	Y
2	IC 410-226473/2	0.5	0.013202	9.36	994670.0	0.026405	Y
3	IC 410-226473/3	2.0	0.062148	9.36	1027896.0	0.031074	Y
4	IC 410-226473/4	8.0	0.239892	9.36	1036229.0	0.029986	Y
5	ICISAV 410-226473/5	20.0	0.592623	9.36	1088599.0	0.029631	Y
6	IC 410-226473/6	50.0	1.569435	9.36	1001189.0	0.031389	Y
7	IC 410-226473/7	100.0	3.519086	9.36	943866.0	0.035191	Y



Calibration / Hydrolyzed PSDA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

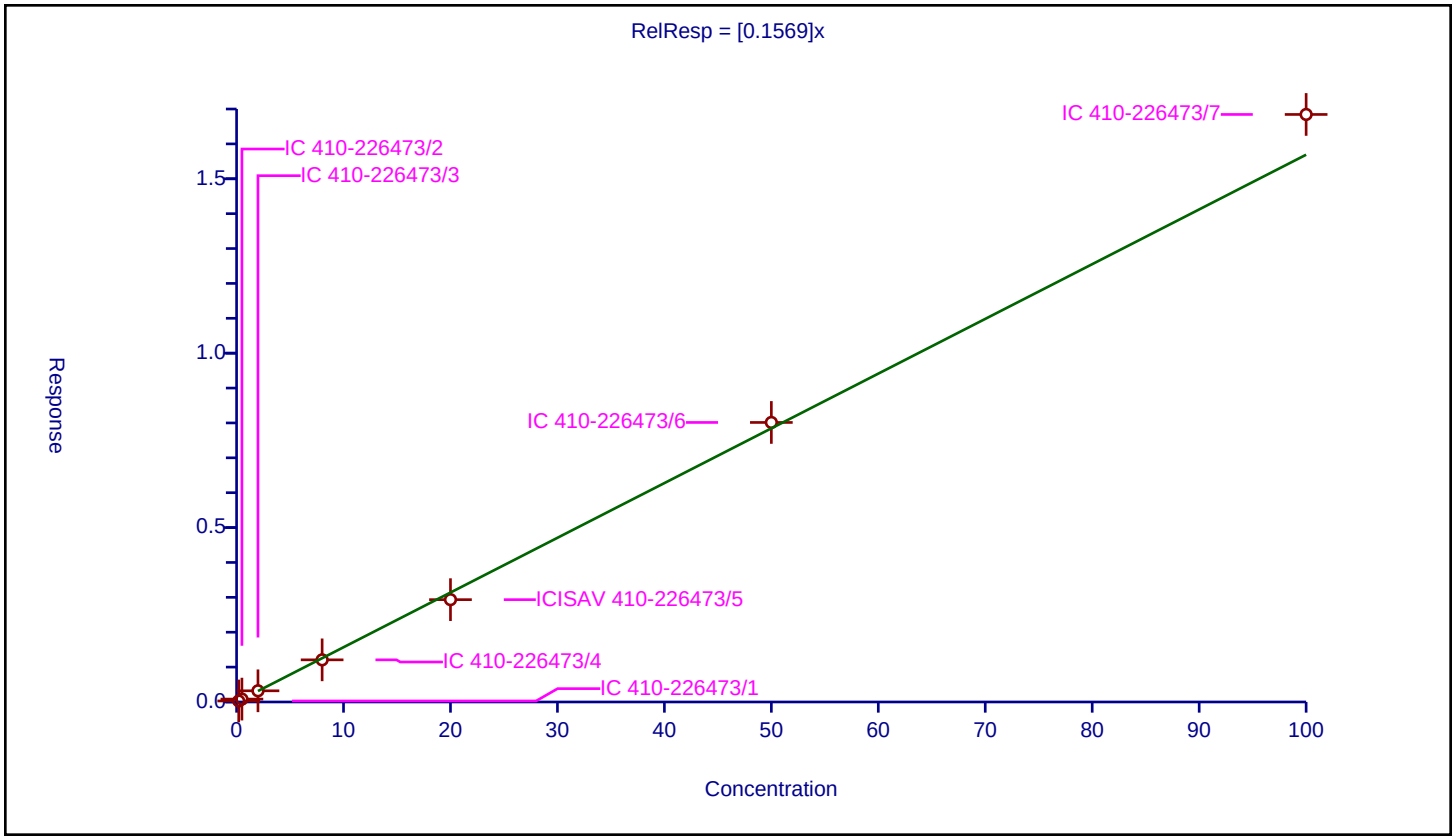
Curve Coefficients

Intercept:	0
Slope:	0.1569

Error Coefficients

Standard Error:	791000
Relative Standard Error:	5.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.029121	9.36	944636.0	0.145607	Y
2	IC 410-226473/2	0.5	0.082875	9.36	994670.0	0.16575	Y
3	IC 410-226473/3	2.0	0.320977	9.36	1027896.0	0.160488	Y
4	IC 410-226473/4	8.0	1.208203	9.36	1036229.0	0.151025	Y
5	ICISAV 410-226473/5	20.0	2.933476	9.36	1088599.0	0.146674	Y
6	IC 410-226473/6	50.0	8.014032	9.36	1001189.0	0.160281	Y
7	IC 410-226473/7	100.0	16.844075	9.36	943866.0	0.168441	Y



Calibration / Perfluorobutanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

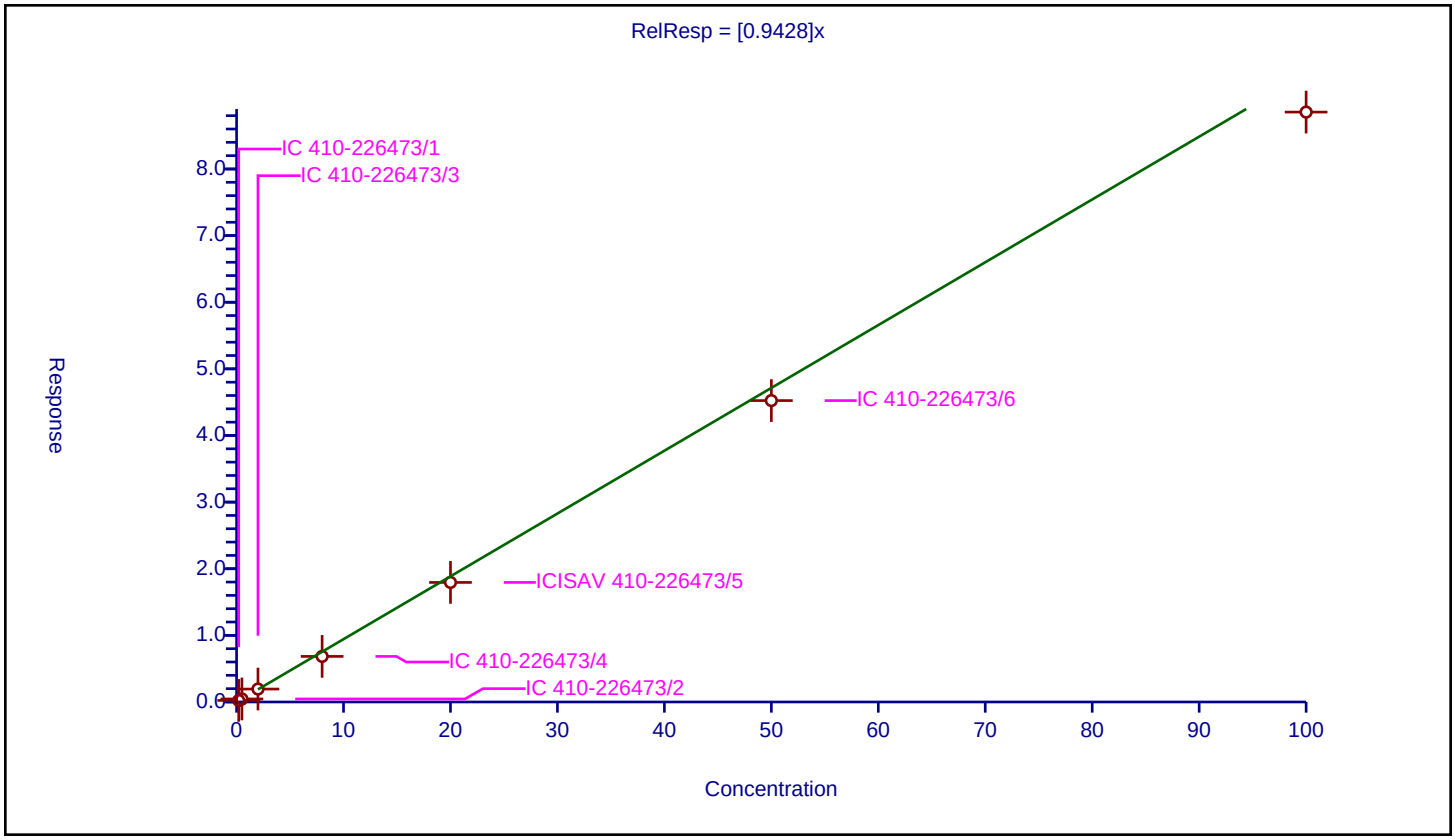
Curve Coefficients

Intercept:	0
Slope:	0.9428

Error Coefficients

Standard Error:	6150000
Relative Standard Error:	11.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.235013	10.0	1539871.0	1.175066	Y
2	IC 410-226473/2	0.5	0.455193	10.0	1665382.0	0.910386	Y
3	IC 410-226473/3	2.0	1.942564	10.0	1648826.0	0.971282	Y
4	IC 410-226473/4	8.0	6.843776	10.0	1637723.0	0.855472	Y
5	ICISAV 410-226473/5	20.0	17.944376	10.0	1522365.0	0.897219	Y
6	IC 410-226473/6	50.0	45.235763	10.0	1517458.0	0.904715	Y
7	IC 410-226473/7	100.0	88.538223	10.0	1478324.0	0.885382	Y



Calibration / PMPA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

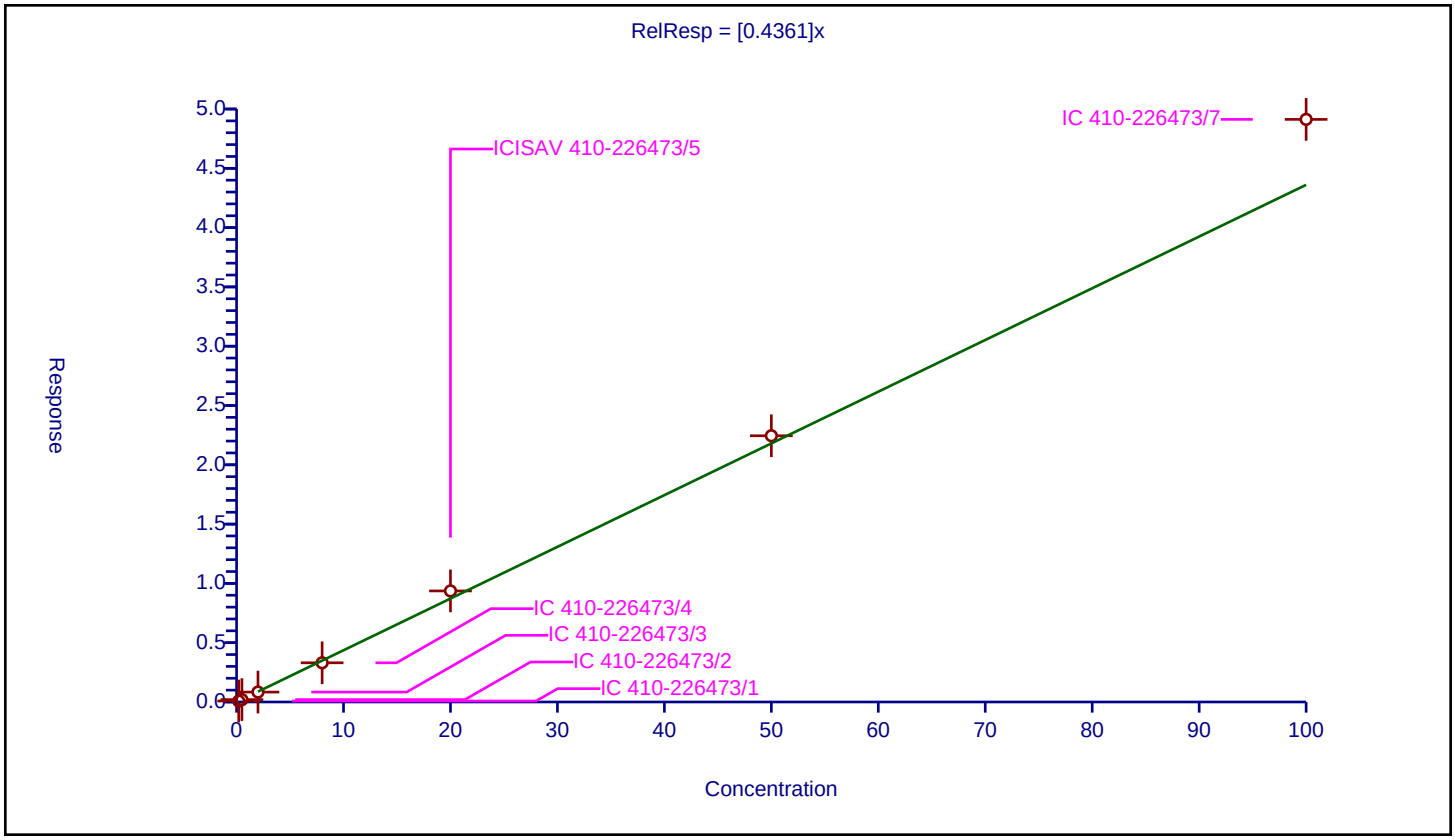
Curve Coefficients

Intercept:	0
Slope:	0.4361

Error Coefficients

Standard Error:	3330000
Relative Standard Error:	7.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.081695	10.0	1539871.0	0.408476	Y
2	IC 410-226473/2	0.5	0.202128	10.0	1665382.0	0.404256	Y
3	IC 410-226473/3	2.0	0.836195	10.0	1648826.0	0.418097	Y
4	IC 410-226473/4	8.0	3.304973	10.0	1637723.0	0.413122	Y
5	ICISAV 410-226473/5	20.0	9.364068	10.0	1522365.0	0.468203	Y
6	IC 410-226473/6	50.0	22.448964	10.0	1517458.0	0.448979	Y
7	IC 410-226473/7	100.0	49.125787	10.0	1478324.0	0.491258	Y



Calibration / PFPrS

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

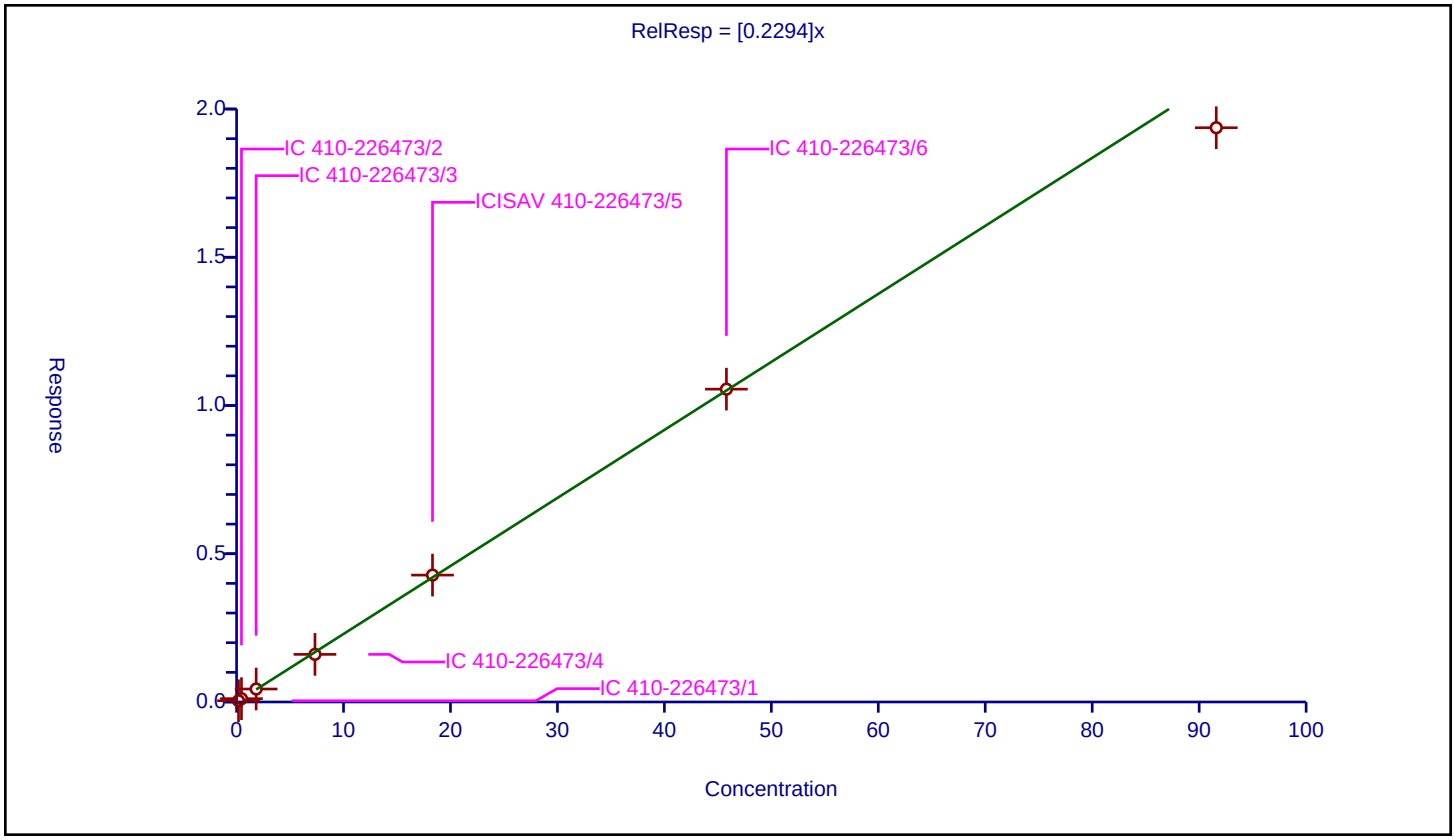
Curve Coefficients

Intercept:	0
Slope:	0.2294

Error Coefficients

Standard Error:	1370000
Relative Standard Error:	5.0
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1832	0.041601	10.0	1539871.0	0.227079	Y
2	IC 410-226473/2	0.458	0.112329	10.0	1665382.0	0.245259	Y
3	IC 410-226473/3	1.832	0.437651	10.0	1648826.0	0.238892	Y
4	IC 410-226473/4	7.328	1.605827	10.0	1637723.0	0.219136	Y
5	ICISAV 410-226473/5	18.32	4.279756	10.0	1522365.0	0.233611	Y
6	IC 410-226473/6	45.8	10.551304	10.0	1517458.0	0.230378	Y
7	IC 410-226473/7	91.6	19.368589	10.0	1478324.0	0.211447	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

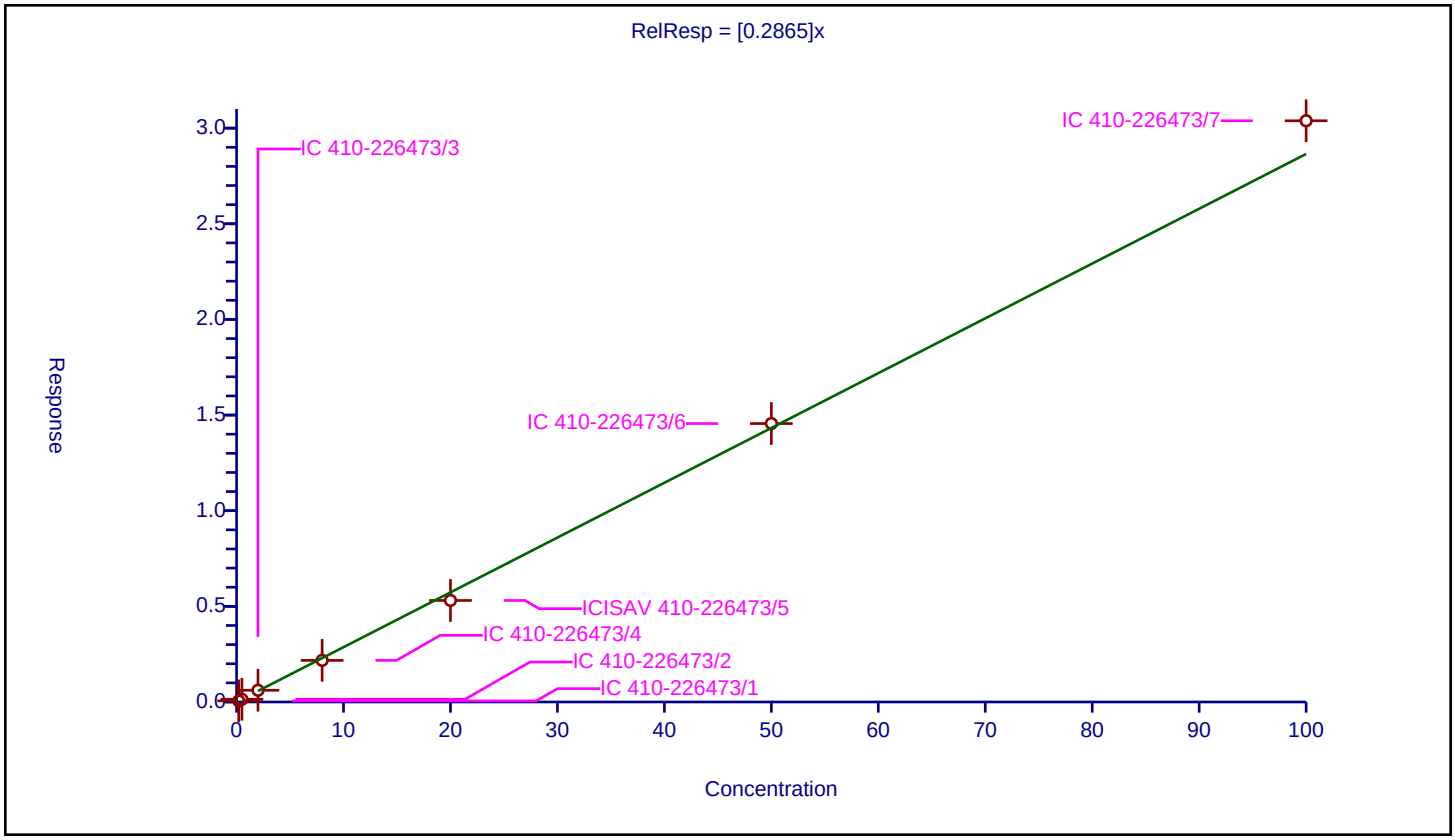
Curve Coefficients

Intercept:	0
Slope:	0.2865

Error Coefficients

Standard Error:	1430000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.056925	9.36	944636.0	0.284624	Y
2	IC 410-226473/2	0.5	0.141209	9.36	994670.0	0.282418	Y
3	IC 410-226473/3	2.0	0.612068	9.36	1027896.0	0.306034	Y
4	IC 410-226473/4	8.0	2.175611	9.36	1036229.0	0.271951	Y
5	ICISAV 410-226473/5	20.0	5.308654	9.36	1088599.0	0.265433	Y
6	IC 410-226473/6	50.0	14.556951	9.36	1001189.0	0.291139	Y
7	IC 410-226473/7	100.0	30.385297	9.36	943866.0	0.303853	Y



Calibration / PFECA F

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

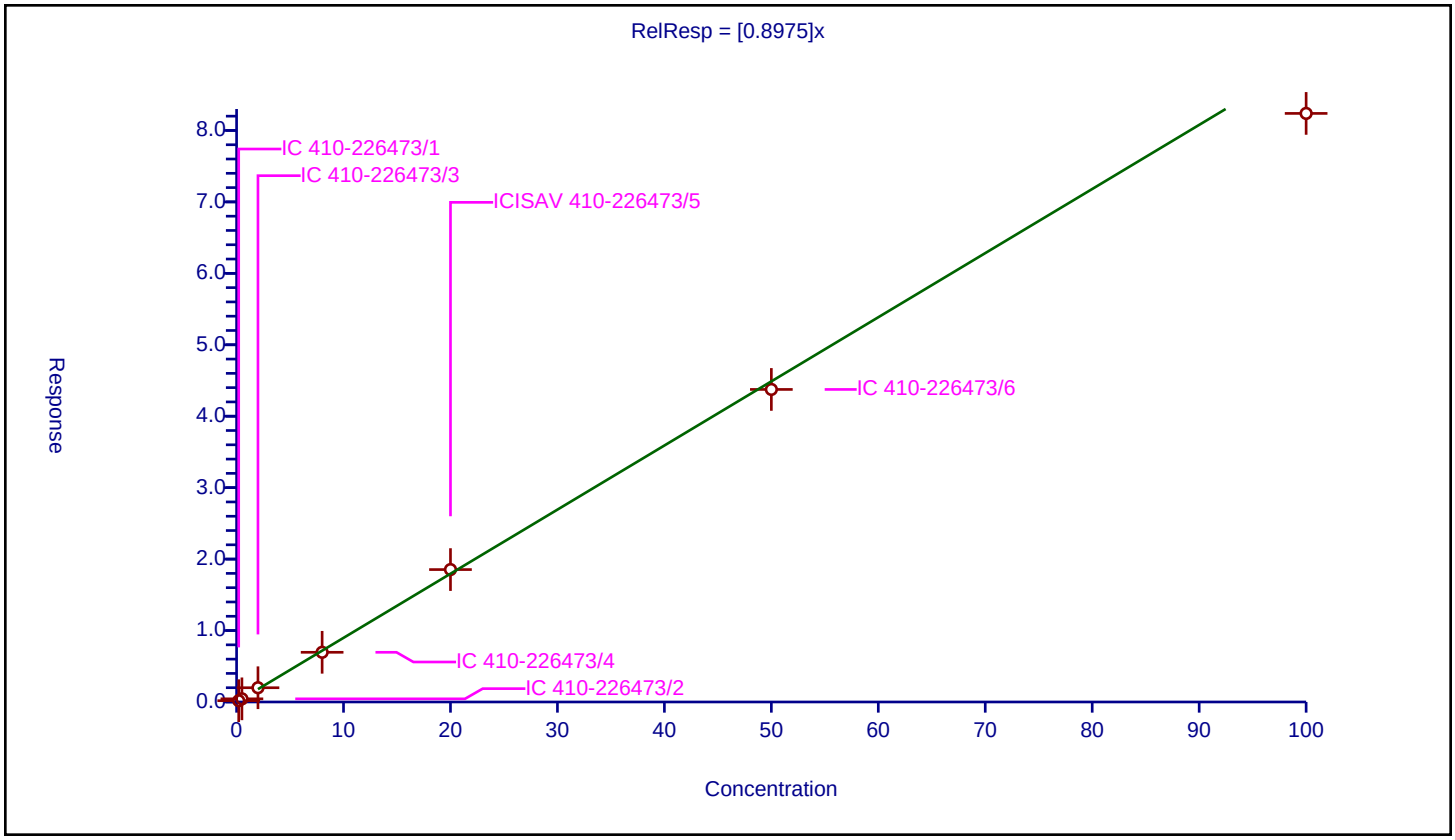
Curve Coefficients

Intercept:	0
Slope:	0.8975

Error Coefficients

Standard Error:	5800000
Relative Standard Error:	6.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.181074	10.0	1539871.0	0.905368	Y
2	IC 410-226473/2	0.5	0.442517	10.0	1665382.0	0.885034	Y
3	IC 410-226473/3	2.0	1.995135	10.0	1648826.0	0.997567	Y
4	IC 410-226473/4	8.0	6.954516	10.0	1637723.0	0.869314	Y
5	ICISAV 410-226473/5	20.0	18.535437	10.0	1522365.0	0.926772	Y
6	IC 410-226473/6	50.0	43.746081	10.0	1517458.0	0.874922	Y
7	IC 410-226473/7	100.0	82.38376	10.0	1478324.0	0.823838	Y



Calibration / PFO2HxA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

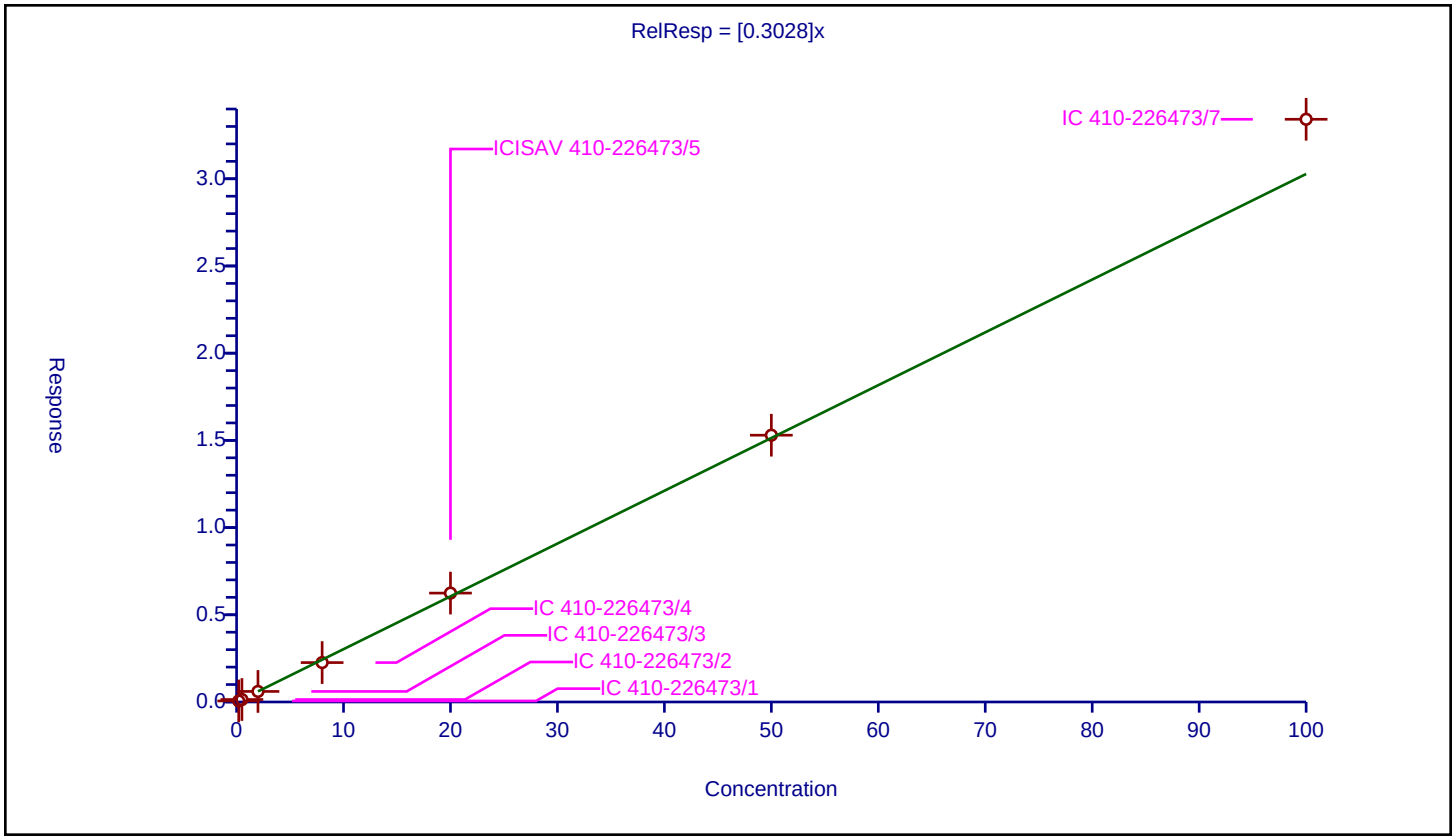
Curve Coefficients

Intercept:	0
Slope:	0.3028

Error Coefficients

Standard Error:	2270000
Relative Standard Error:	5.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.059739	10.0	1539871.0	0.298694	Y
2	IC 410-226473/2	0.5	0.141769	10.0	1665382.0	0.283539	Y
3	IC 410-226473/3	2.0	0.604667	10.0	1648826.0	0.302333	Y
4	IC 410-226473/4	8.0	2.259552	10.0	1637723.0	0.282444	Y
5	ICISAV 410-226473/5	20.0	6.244376	10.0	1522365.0	0.312219	Y
6	IC 410-226473/6	50.0	15.297399	10.0	1517458.0	0.305948	Y
7	IC 410-226473/7	100.0	33.411965	10.0	1478324.0	0.33412	Y



Calibration / 3:3 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

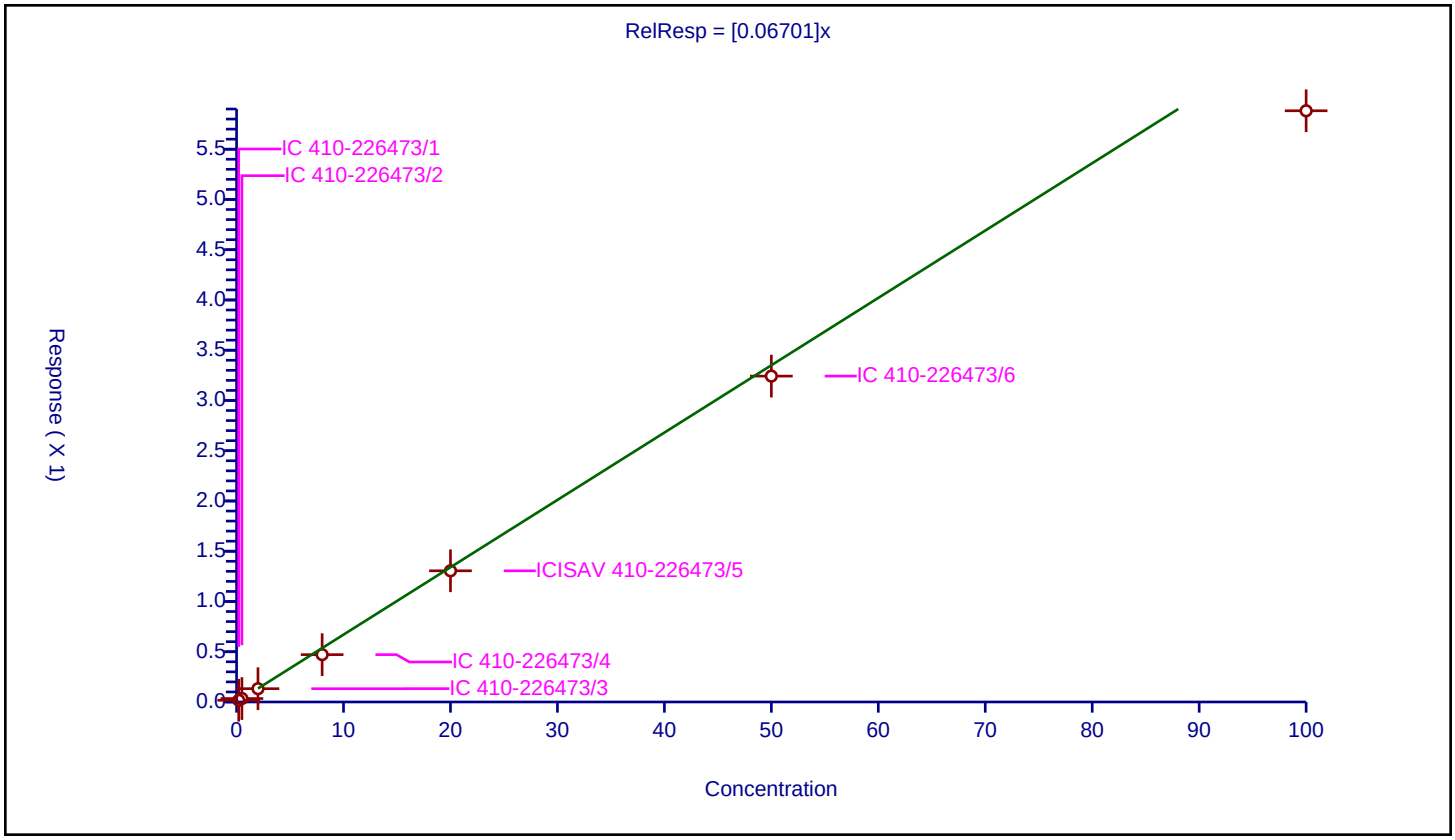
Curve Coefficients

Intercept:	0
Slope:	0.06701

Error Coefficients

Standard Error:	368000
Relative Standard Error:	14.0
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.972

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.017304	10.0	1255168.0	0.086522	Y
2	IC 410-226473/2	0.5	0.034294	10.0	1362341.0	0.068588	Y
3	IC 410-226473/3	2.0	0.132237	10.0	1410804.0	0.066118	Y
4	IC 410-226473/4	8.0	0.471218	10.0	1430612.0	0.058902	Y
5	ICISAV 410-226473/5	20.0	1.305218	10.0	1392197.0	0.065261	Y
6	IC 410-226473/6	50.0	3.242577	10.0	1350864.0	0.064852	Y
7	IC 410-226473/7	100.0	5.882403	10.0	1299452.0	0.058824	Y



Calibration / Perfluoropentanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

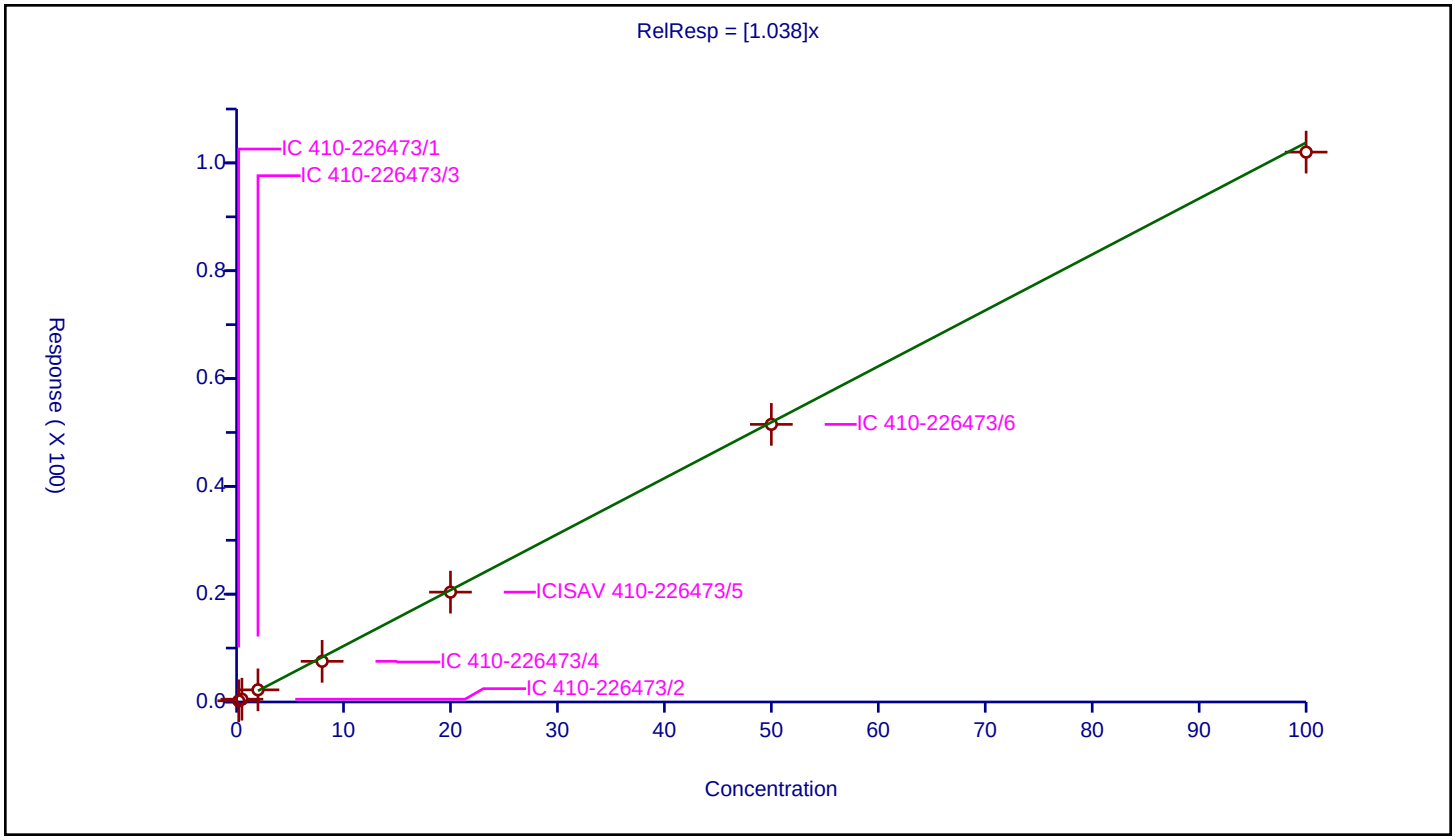
Curve Coefficients

Intercept:	0
Slope:	1.038

Error Coefficients

Standard Error:	6240000
Relative Standard Error:	5.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.2186	10.0	1255168.0	1.093001	Y
2	IC 410-226473/2	0.5	0.516537	10.0	1362341.0	1.033075	Y
3	IC 410-226473/3	2.0	2.251744	10.0	1410804.0	1.125872	Y
4	IC 410-226473/4	8.0	7.542304	10.0	1430612.0	0.942788	Y
5	ICISAV 410-226473/5	20.0	20.380794	10.0	1392197.0	1.01904	Y
6	IC 410-226473/6	50.0	51.49716	10.0	1350864.0	1.029943	Y
7	IC 410-226473/7	100.0	102.006861	10.0	1299452.0	1.020069	Y



Calibration / Perfluorobutanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

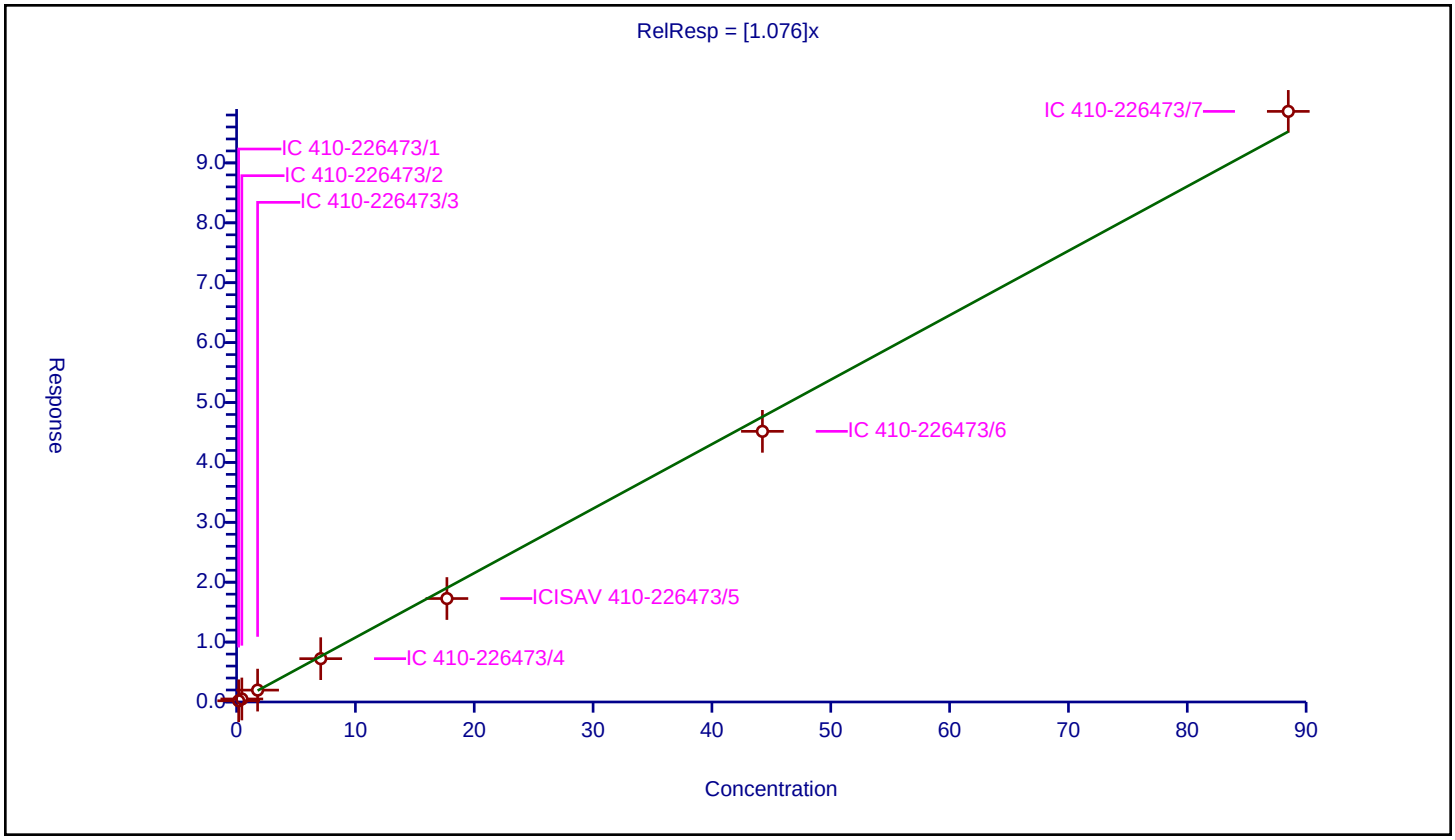
Curve Coefficients

Intercept:	0
Slope:	1.076

Error Coefficients

Standard Error:	4600000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.177	0.201907	9.36	944636.0	1.140718	Y
2	IC 410-226473/2	0.4425	0.503265	9.36	994670.0	1.137321	Y
3	IC 410-226473/3	1.77	1.984676	9.36	1027896.0	1.121286	Y
4	IC 410-226473/4	7.08	7.234602	9.36	1036229.0	1.021836	Y
5	ICISAV 410-226473/5	17.7	17.270162	9.36	1088599.0	0.975715	Y
6	IC 410-226473/6	44.25	45.185868	9.36	1001189.0	1.02115	Y
7	IC 410-226473/7	88.5	98.604354	9.36	943866.0	1.114173	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

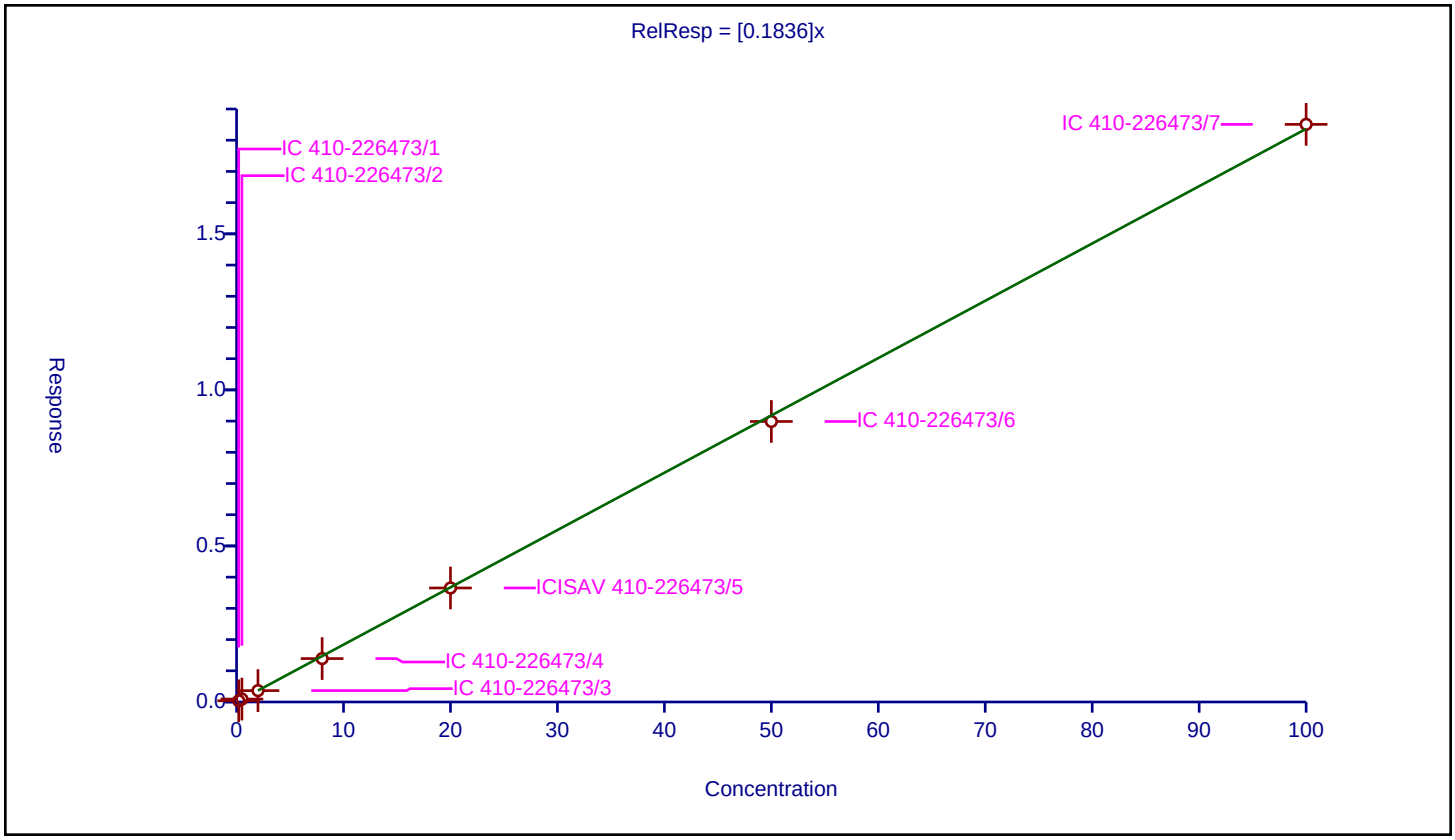
Curve Coefficients

Intercept:	0
Slope:	0.1836

Error Coefficients

Standard Error:	1270000
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.039049	10.0	1539871.0	0.195244	Y
2	IC 410-226473/2	0.5	0.093306	10.0	1665382.0	0.186612	Y
3	IC 410-226473/3	2.0	0.364629	10.0	1648826.0	0.182315	Y
4	IC 410-226473/4	8.0	1.390339	10.0	1637723.0	0.173792	Y
5	ICISAV 410-226473/5	20.0	3.65323	10.0	1522365.0	0.182662	Y
6	IC 410-226473/6	50.0	8.988466	10.0	1517458.0	0.179769	Y
7	IC 410-226473/7	100.0	18.507533	10.0	1478324.0	0.185075	Y



Calibration / PFECA A

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

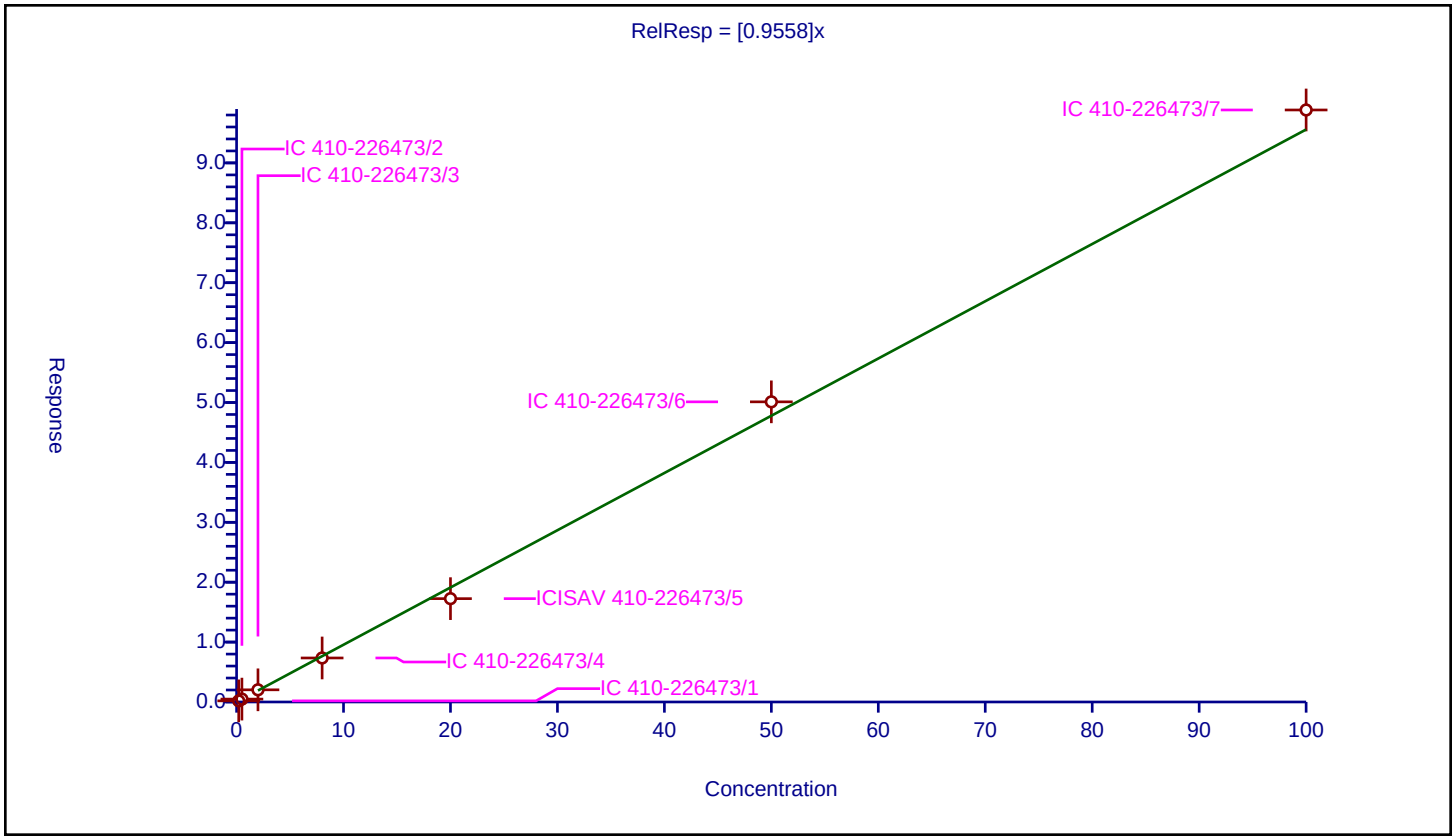
Curve Coefficients

Intercept:	0
Slope:	0.9558

Error Coefficients

Standard Error:	4700000
Relative Standard Error:	5.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.18748	9.36	944636.0	0.937401	Y
2	IC 410-226473/2	0.5	0.482016	9.36	994670.0	0.964033	Y
3	IC 410-226473/3	2.0	2.034412	9.36	1027896.0	1.017206	Y
4	IC 410-226473/4	8.0	7.34828	9.36	1036229.0	0.918535	Y
5	ICISAV 410-226473/5	20.0	17.255029	9.36	1088599.0	0.862751	Y
6	IC 410-226473/6	50.0	50.109692	9.36	1001189.0	1.002194	Y
7	IC 410-226473/7	100.0	98.839548	9.36	943866.0	0.988395	Y



Calibration / PES

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

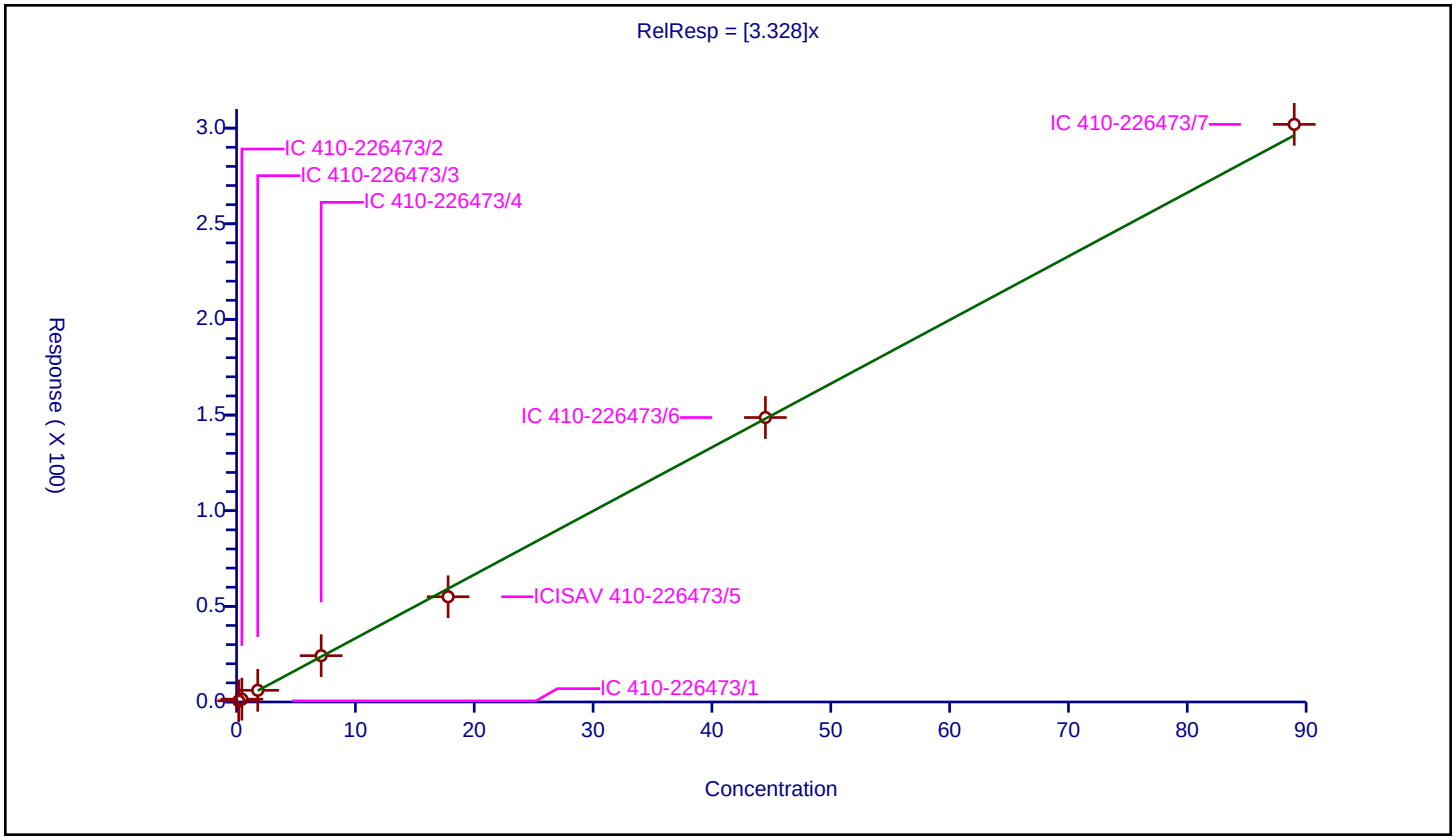
Curve Coefficients

Intercept:	0
Slope:	3.328

Error Coefficients

Standard Error:	14300000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.178	0.588758	9.36	944636.0	3.307628	Y
2	IC 410-226473/2	0.445	1.483266	9.36	994670.0	3.333183	Y
3	IC 410-226473/3	1.78	6.1083	9.36	1027896.0	3.431629	Y
4	IC 410-226473/4	7.12	24.204245	9.36	1036229.0	3.399473	Y
5	ICISAV 410-226473/5	17.8	55.018958	9.36	1088599.0	3.090953	Y
6	IC 410-226473/6	44.5	148.71817	9.36	1001189.0	3.341981	Y
7	IC 410-226473/7	89.0	301.968692	9.36	943866.0	3.392907	Y



Calibration / PFECA B

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

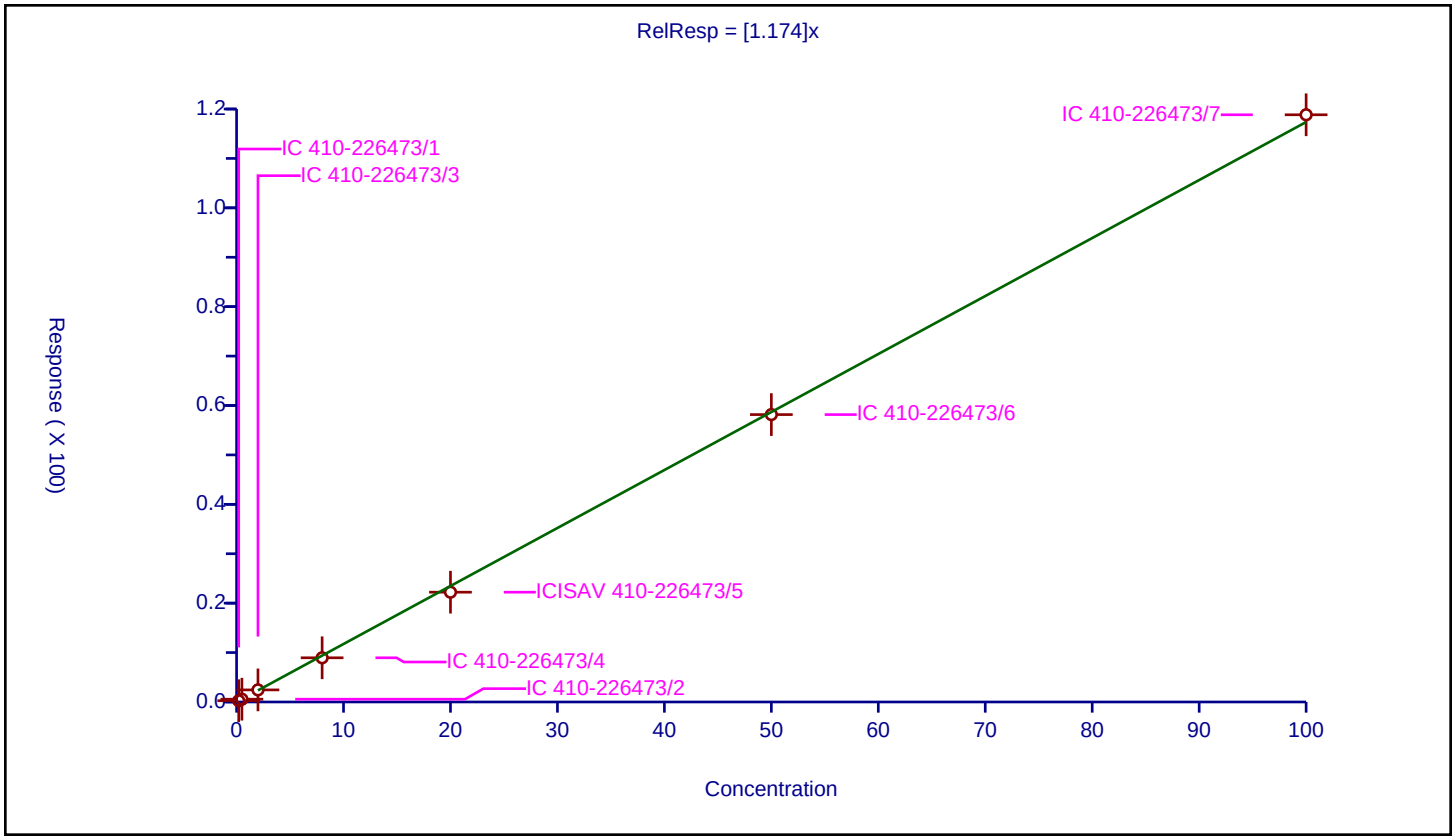
Curve Coefficients

Intercept:	0
Slope:	1.174

Error Coefficients

Standard Error:	5630000
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.256989	9.36	944636.0	1.284944	Y
2	IC 410-226473/2	0.5	0.563461	9.36	994670.0	1.126923	Y
3	IC 410-226473/3	2.0	2.445192	9.36	1027896.0	1.222596	Y
4	IC 410-226473/4	8.0	8.94387	9.36	1036229.0	1.117984	Y
5	ICISAV 410-226473/5	20.0	22.222308	9.36	1088599.0	1.111115	Y
6	IC 410-226473/6	50.0	58.162213	9.36	1001189.0	1.163244	Y
7	IC 410-226473/7	100.0	118.832669	9.36	943866.0	1.188327	Y



Calibration / 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

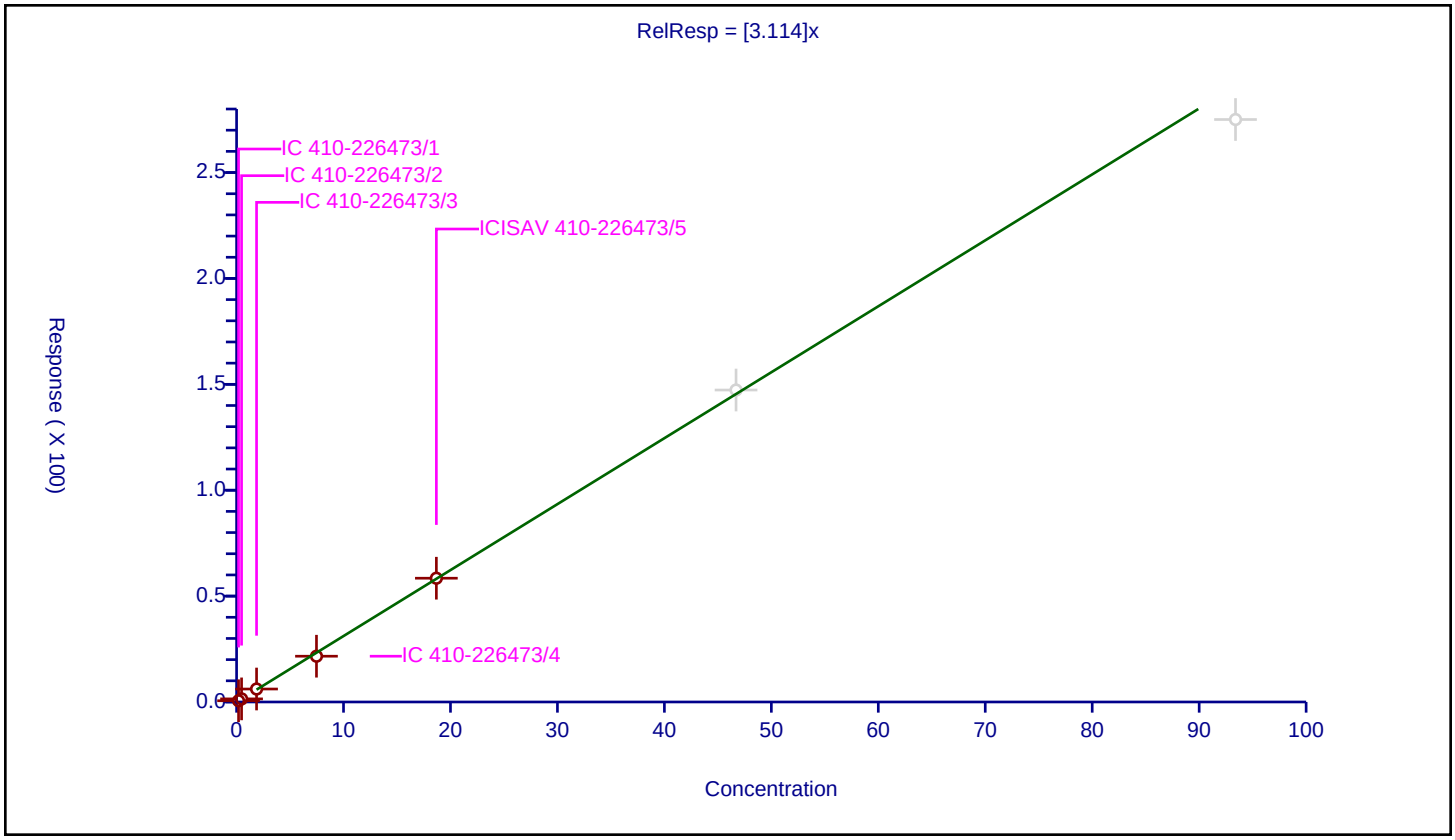
Curve Coefficients

Intercept:	0
Slope:	3.114

Error Coefficients

Standard Error:	632000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1868	0.583413	9.34	194000.0	3.123196	Y
2	IC 410-226473/2	0.467	1.470125	9.34	200831.0	3.14802	Y
3	IC 410-226473/3	1.868	6.121379	9.34	212074.0	3.276969	Y
4	IC 410-226473/4	7.472	21.618116	9.34	204585.0	2.893217	Y
5	ICISAV 410-226473/5	18.68	58.439722	9.34	185798.0	3.128465	Y
6	IC 410-226473/6	46.7	147.306742	9.34	157745.0	3.15432	N
7	IC 410-226473/7	93.4	275.043217	9.34	143386.0	2.944788	N



Calibration / Perfluorohexanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

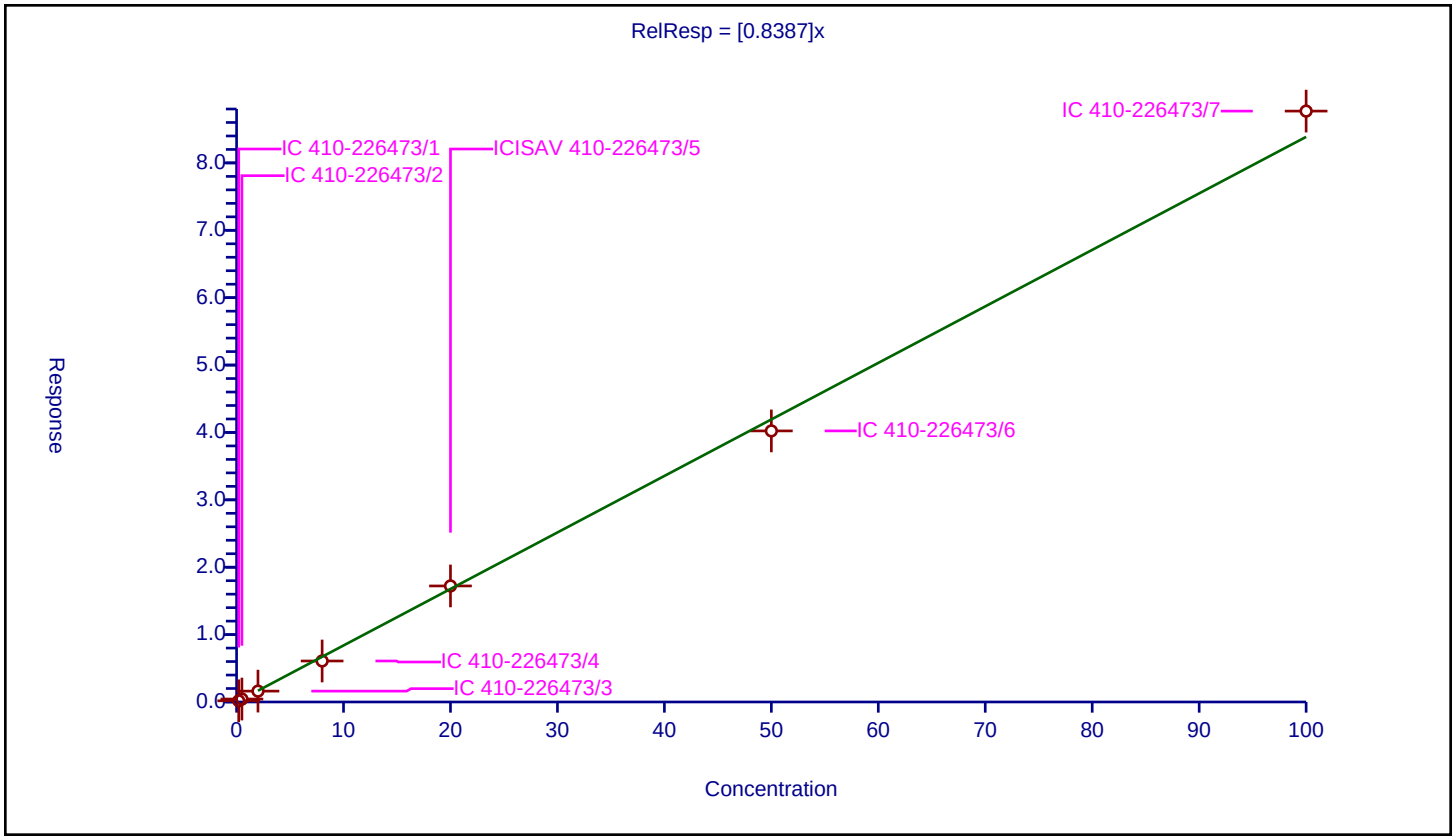
Curve Coefficients

Intercept:	0
Slope:	0.8387

Error Coefficients

Standard Error:	5910000
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.177718	10.0	1672761.0	0.888591	Y
2	IC 410-226473/2	0.5	0.436398	10.0	1665015.0	0.872797	Y
3	IC 410-226473/3	2.0	1.612199	10.0	1772970.0	0.806099	Y
4	IC 410-226473/4	8.0	6.084973	10.0	1718642.0	0.760622	Y
5	ICISAV 410-226473/5	20.0	17.220173	10.0	1614532.0	0.861009	Y
6	IC 410-226473/6	50.0	40.228725	10.0	1603805.0	0.804574	Y
7	IC 410-226473/7	100.0	87.691745	10.0	1438268.0	0.876917	Y



Calibration / Perfluoropentanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

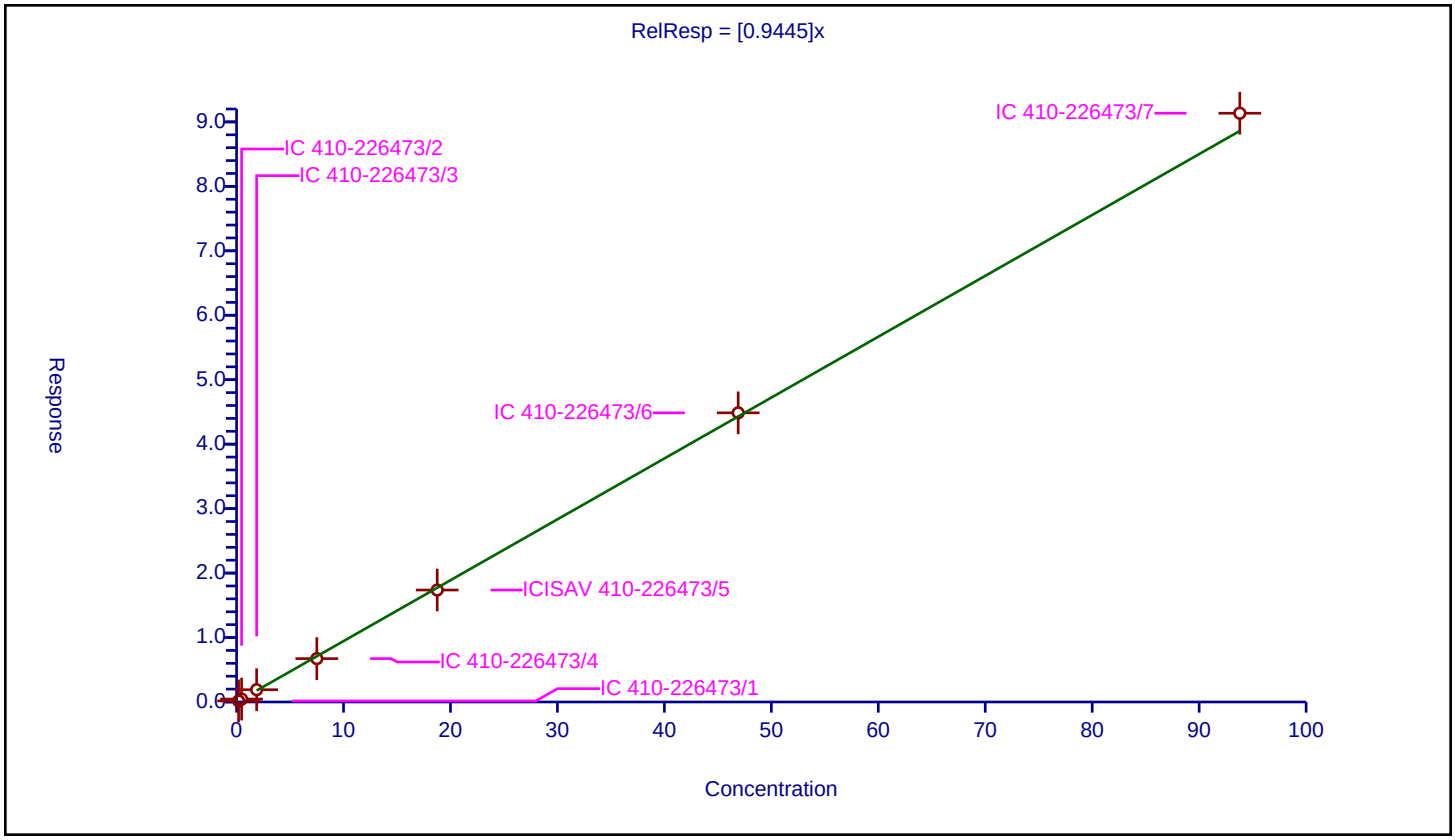
Curve Coefficients

Intercept:	0
Slope:	0.9445

Error Coefficients

Standard Error:	4330000
Relative Standard Error:	5.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1876	0.164027	9.36	944636.0	0.874342	Y
2	IC 410-226473/2	0.469	0.454445	9.36	994670.0	0.968965	Y
3	IC 410-226473/3	1.876	1.904761	9.36	1027896.0	1.015331	Y
4	IC 410-226473/4	7.504	6.72847	9.36	1036229.0	0.896651	Y
5	ICISAV 410-226473/5	18.76	17.371535	9.36	1088599.0	0.925988	Y
6	IC 410-226473/6	46.9	44.861415	9.36	1001189.0	0.956533	Y
7	IC 410-226473/7	93.8	91.34747	9.36	943866.0	0.973854	Y



Calibration / PFO3OA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

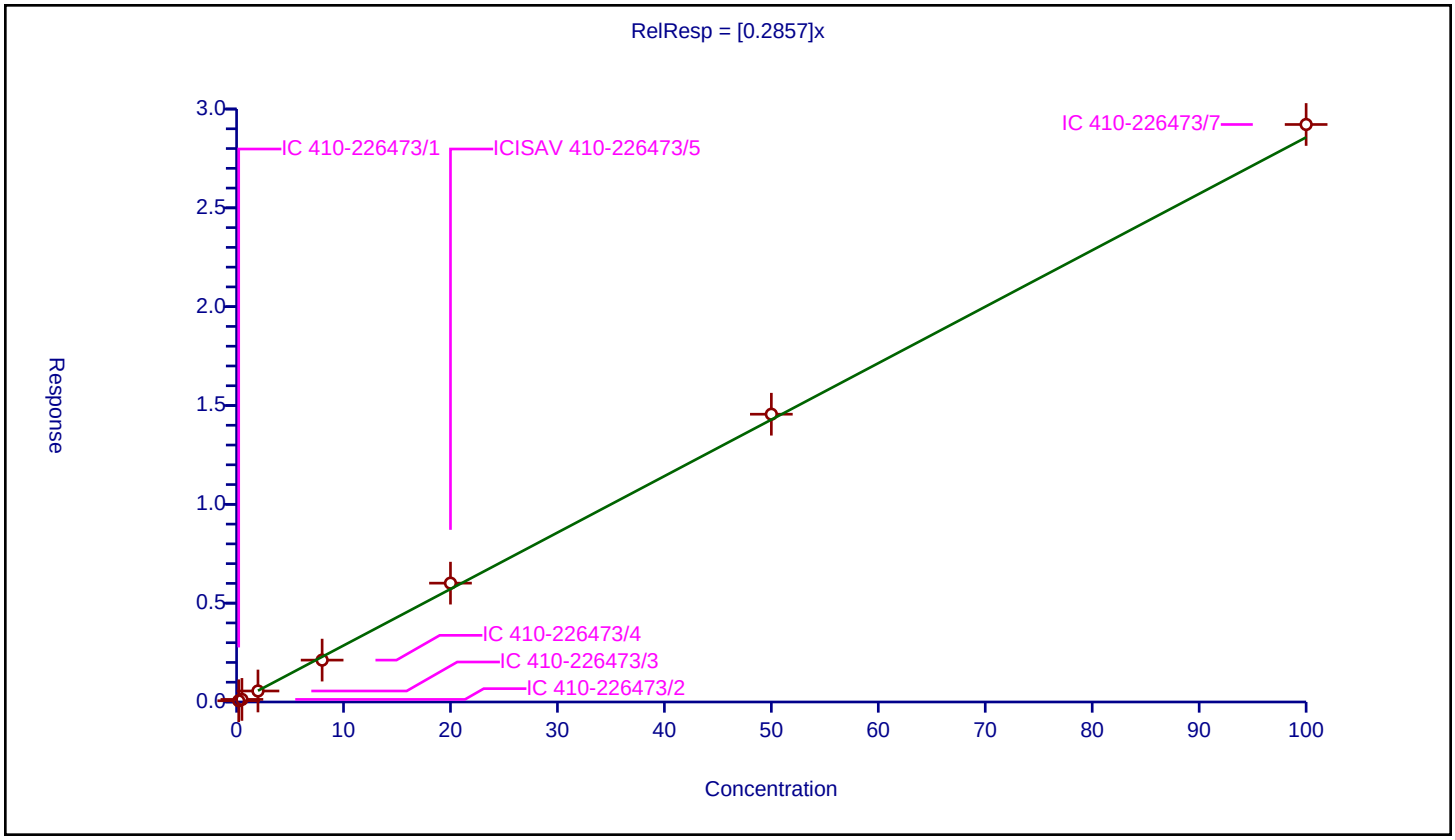
Curve Coefficients

Intercept:	0
Slope:	0.2857

Error Coefficients

Standard Error:	2020000
Relative Standard Error:	6.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.062388	10.0	1539871.0	0.311942	Y
2	IC 410-226473/2	0.5	0.13033	10.0	1665382.0	0.260661	Y
3	IC 410-226473/3	2.0	0.556687	10.0	1648826.0	0.278344	Y
4	IC 410-226473/4	8.0	2.118215	10.0	1637723.0	0.264777	Y
5	ICISAV 410-226473/5	20.0	6.011896	10.0	1522365.0	0.300595	Y
6	IC 410-226473/6	50.0	14.559645	10.0	1517458.0	0.291193	Y
7	IC 410-226473/7	100.0	29.21781	10.0	1478324.0	0.292178	Y



Calibration / Perfluoro(2-propoxypropanoic) acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

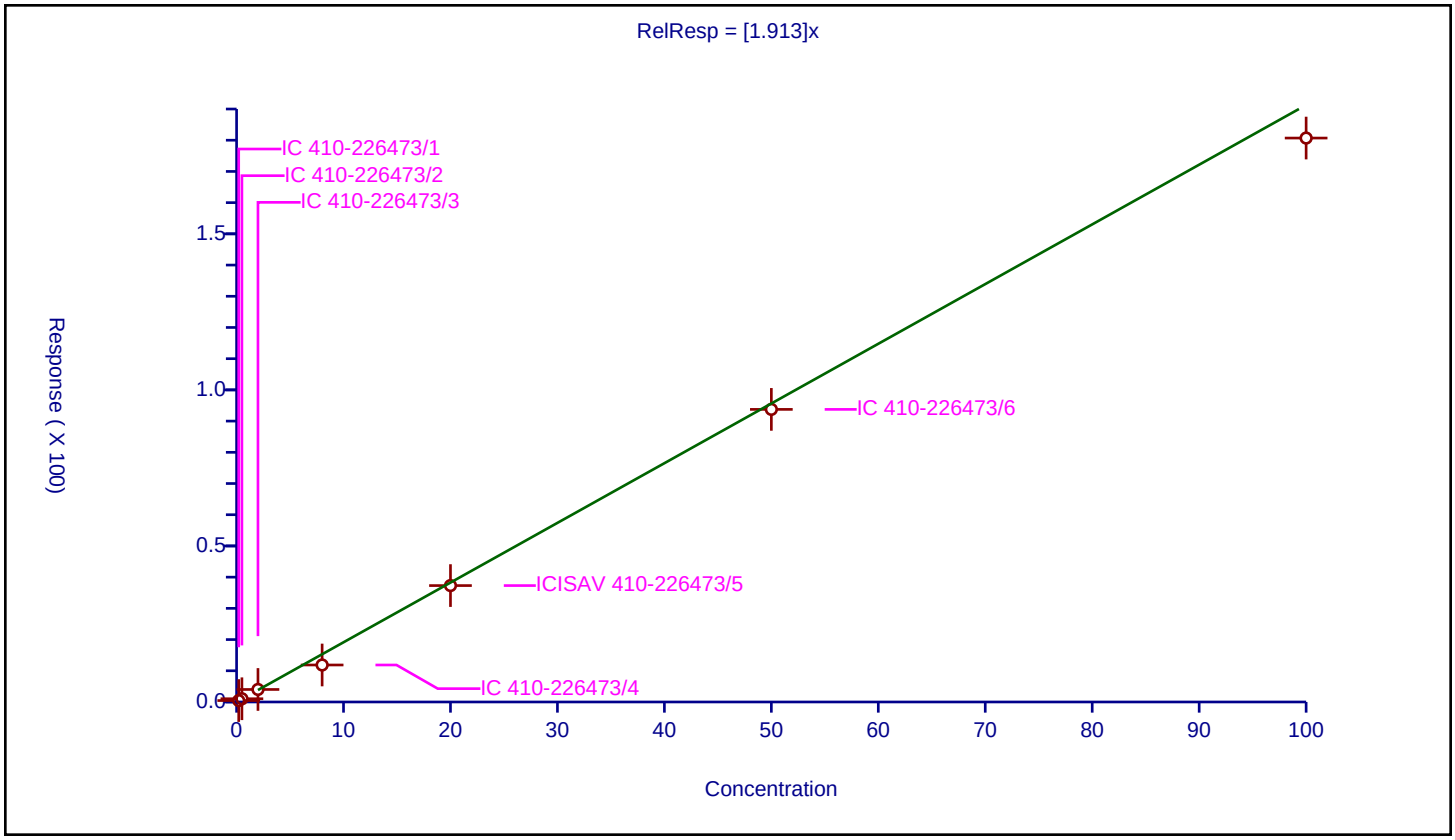
Curve Coefficients

Intercept:	0
Slope:	1.913

Error Coefficients

Standard Error:	2140000
Relative Standard Error:	12.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.454491	10.0	217980.0	2.272456	Y
2	IC 410-226473/2	0.5	1.041251	10.0	235217.0	2.082503	Y
3	IC 410-226473/3	2.0	4.011762	10.0	236517.0	2.005881	Y
4	IC 410-226473/4	8.0	11.855202	10.0	280487.0	1.4819	Y
5	ICISAV 410-226473/5	20.0	37.303206	10.0	227192.0	1.86516	Y
6	IC 410-226473/6	50.0	93.754027	10.0	230025.0	1.875081	Y
7	IC 410-226473/7	100.0	180.698182	10.0	259531.0	1.806982	Y



Calibration / Hydro-PS Acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

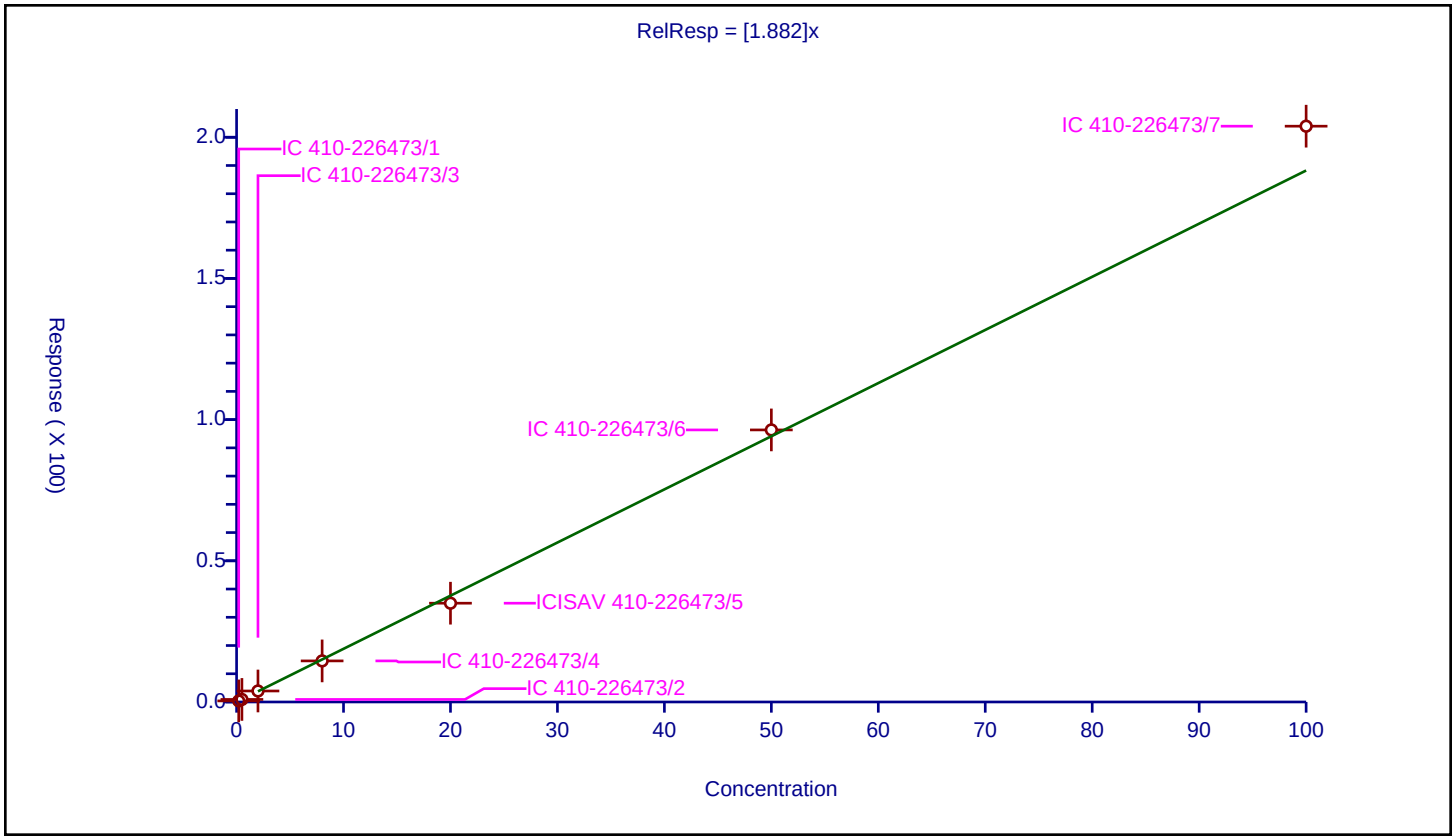
Curve Coefficients

Intercept:	0
Slope:	1.882

Error Coefficients

Standard Error:	9560000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.377814	9.36	944636.0	1.88907	Y
2	IC 410-226473/2	0.5	0.901841	9.36	994670.0	1.803682	Y
3	IC 410-226473/3	2.0	3.897815	9.36	1027896.0	1.948907	Y
4	IC 410-226473/4	8.0	14.547094	9.36	1036229.0	1.818387	Y
5	ICISAV 410-226473/5	20.0	34.984911	9.36	1088599.0	1.749246	Y
6	IC 410-226473/6	50.0	96.348591	9.36	1001189.0	1.926972	Y
7	IC 410-226473/7	100.0	203.917062	9.36	943866.0	2.039171	Y



Calibration / Hydro-EVE Acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

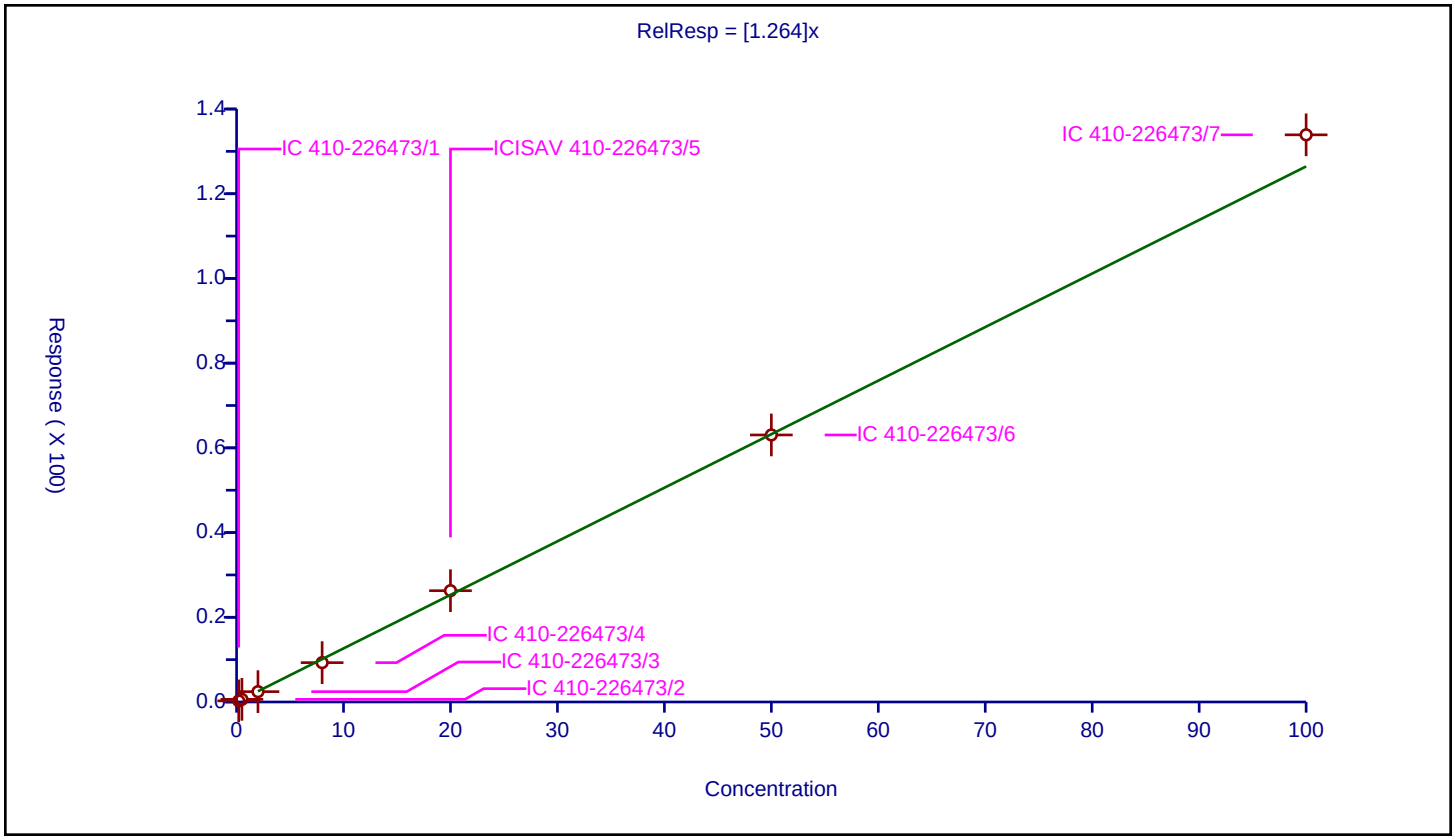
Curve Coefficients

Intercept:	0
Slope:	1.264

Error Coefficients

Standard Error:	9150000
Relative Standard Error:	4.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.261561	10.0	1539871.0	1.307804	Y
2	IC 410-226473/2	0.5	0.624343	10.0	1665382.0	1.248686	Y
3	IC 410-226473/3	2.0	2.439778	10.0	1648826.0	1.219889	Y
4	IC 410-226473/4	8.0	9.288292	10.0	1637723.0	1.161037	Y
5	ICISAV 410-226473/5	20.0	26.276806	10.0	1522365.0	1.31384	Y
6	IC 410-226473/6	50.0	63.041653	10.0	1517458.0	1.260833	Y
7	IC 410-226473/7	100.0	133.908555	10.0	1478324.0	1.339086	Y



Calibration / R-PSDCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

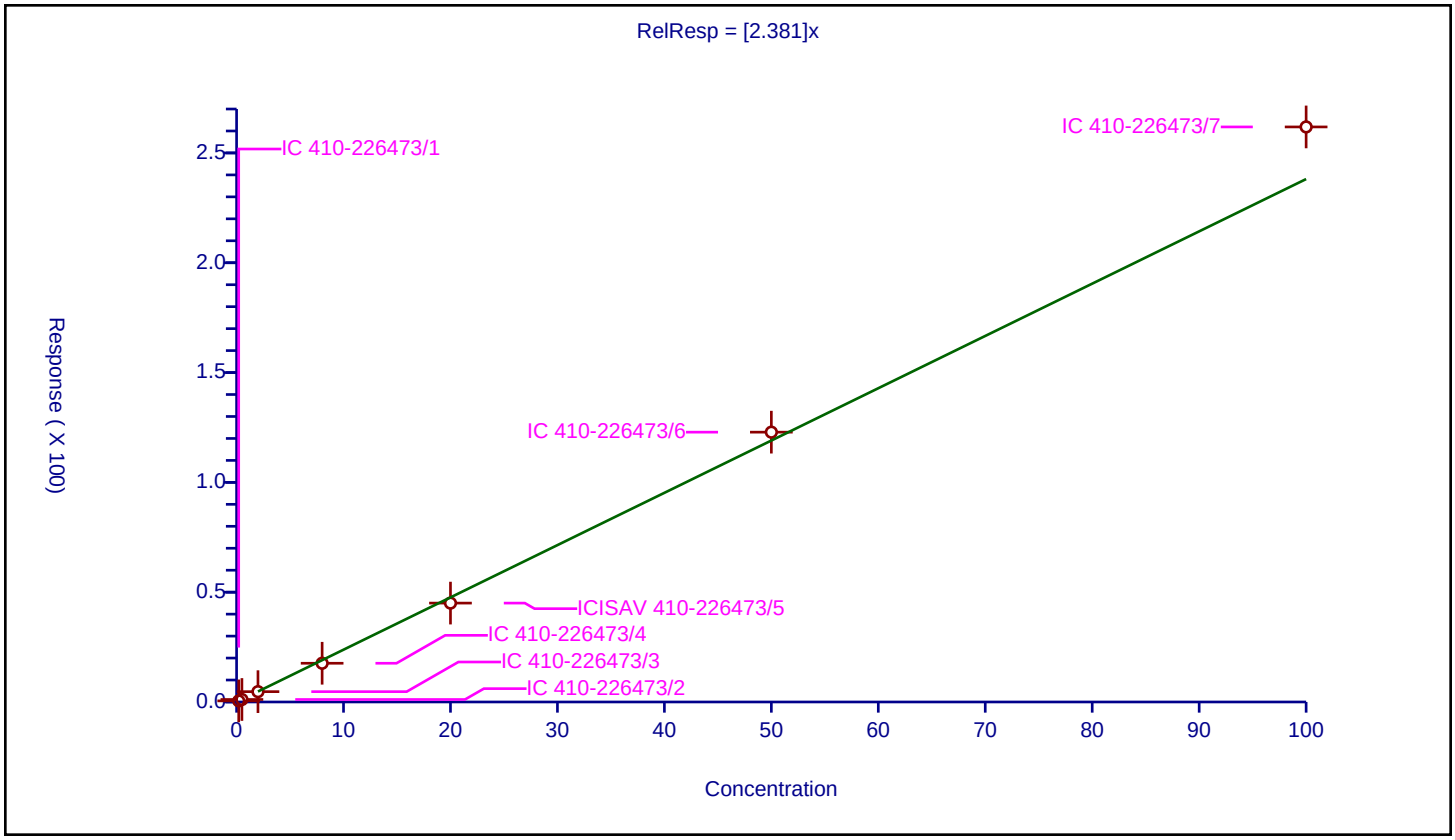
Curve Coefficients

Intercept:	0
Slope:	2.381

Error Coefficients

Standard Error:	12300000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.500403	9.36	944636.0	2.502015	Y
2	IC 410-226473/2	0.5	1.139146	9.36	994670.0	2.278293	Y
3	IC 410-226473/3	2.0	4.709895	9.36	1027896.0	2.354947	Y
4	IC 410-226473/4	8.0	17.640342	9.36	1036229.0	2.205043	Y
5	ICISAV 410-226473/5	20.0	45.023963	9.36	1088599.0	2.251198	Y
6	IC 410-226473/6	50.0	122.856959	9.36	1001189.0	2.457139	Y
7	IC 410-226473/7	100.0	261.846304	9.36	943866.0	2.618463	Y



Calibration / Perfluoroheptanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

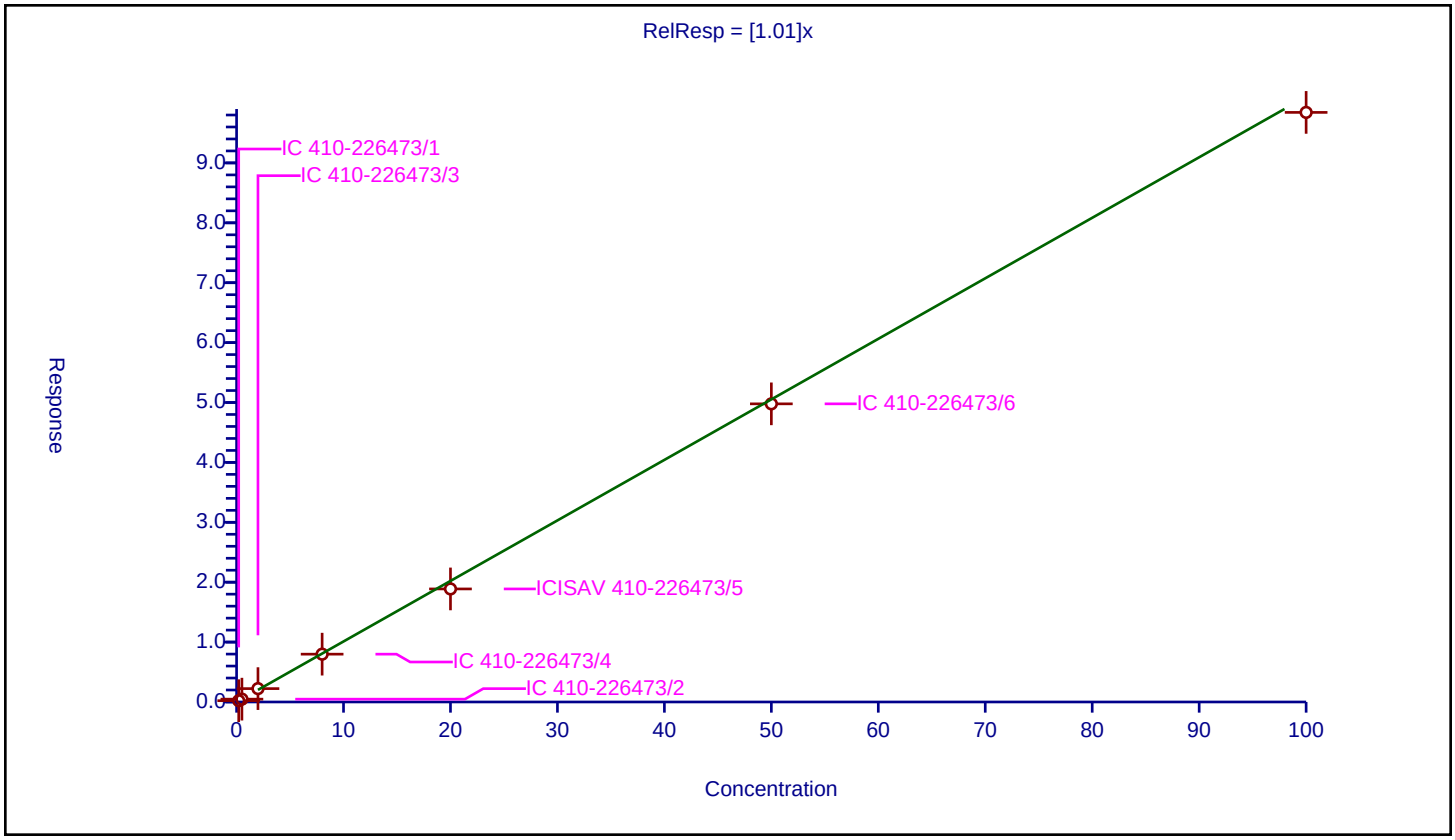
Curve Coefficients

Intercept:	0
Slope:	1.01

Error Coefficients

Standard Error:	7160000
Relative Standard Error:	6.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.216597	10.0	1809071.0	1.082987	Y
2	IC 410-226473/2	0.5	0.476309	10.0	2025681.0	0.952618	Y
3	IC 410-226473/3	2.0	2.231866	10.0	1953952.0	1.115933	Y
4	IC 410-226473/4	8.0	7.983907	10.0	1950218.0	0.997988	Y
5	ICISAV 410-226473/5	20.0	18.87455	10.0	1904482.0	0.943727	Y
6	IC 410-226473/6	50.0	49.778005	10.0	1618817.0	0.99556	Y
7	IC 410-226473/7	100.0	98.435419	10.0	1532250.0	0.984354	Y



Calibration / Perfluorohexanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

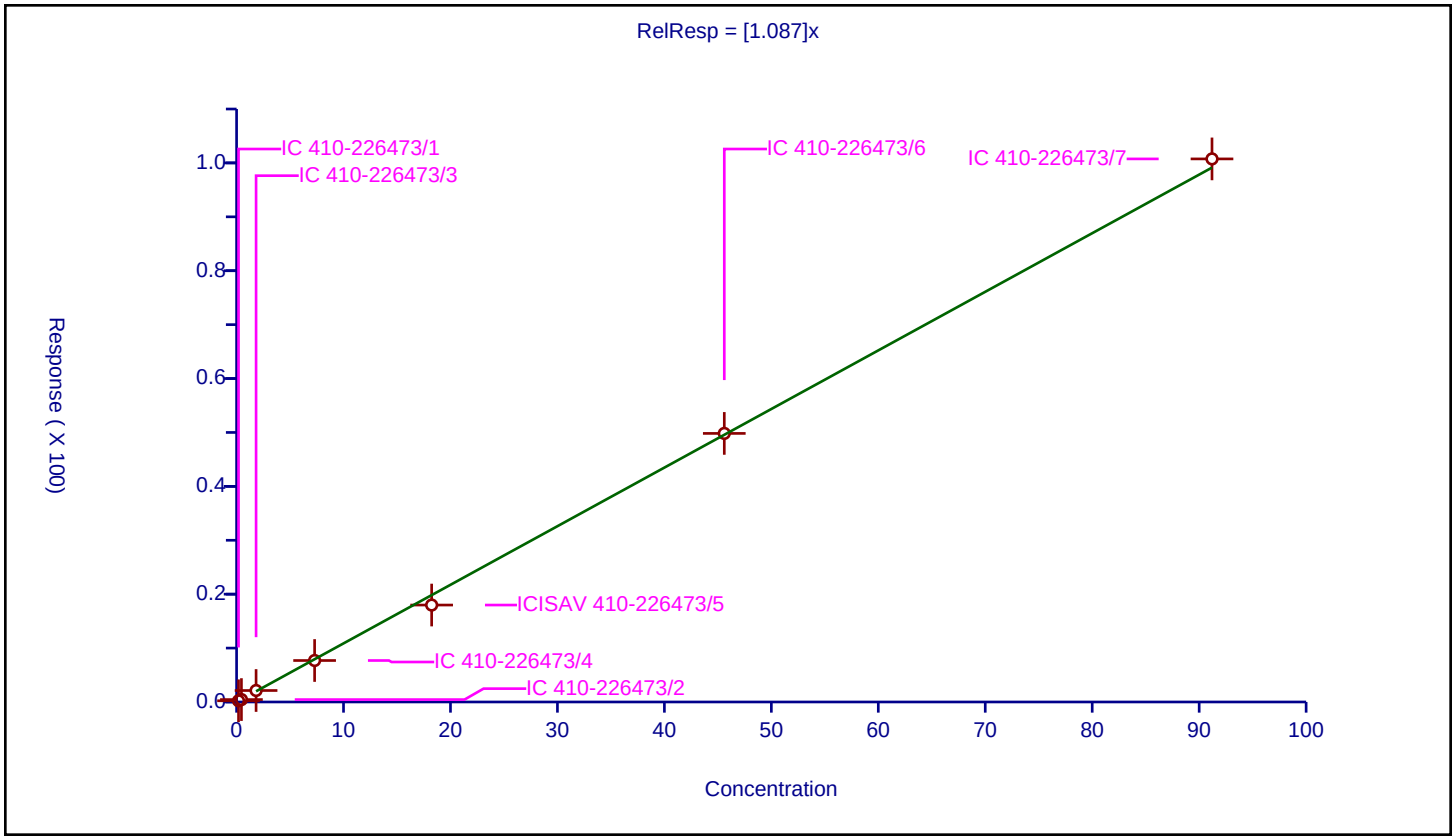
Curve Coefficients

Intercept:	0
Slope:	1.087

Error Coefficients

Standard Error:	4190000
Relative Standard Error:	8.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1824	0.22282	9.46	904480.0	1.221598	Y
2	IC 410-226473/2	0.456	0.448446	9.46	1026465.0	0.983434	Y
3	IC 410-226473/3	1.824	2.127524	9.46	988880.0	1.166406	Y
4	IC 410-226473/4	7.296	7.692522	9.46	1019675.0	1.054348	Y
5	ICISAV 410-226473/5	18.24	17.982621	9.46	1044892.0	0.985889	Y
6	IC 410-226473/6	45.6	49.822779	9.46	905967.0	1.092605	Y
7	IC 410-226473/7	91.2	100.742242	9.46	829889.0	1.10463	Y



Calibration / DONA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

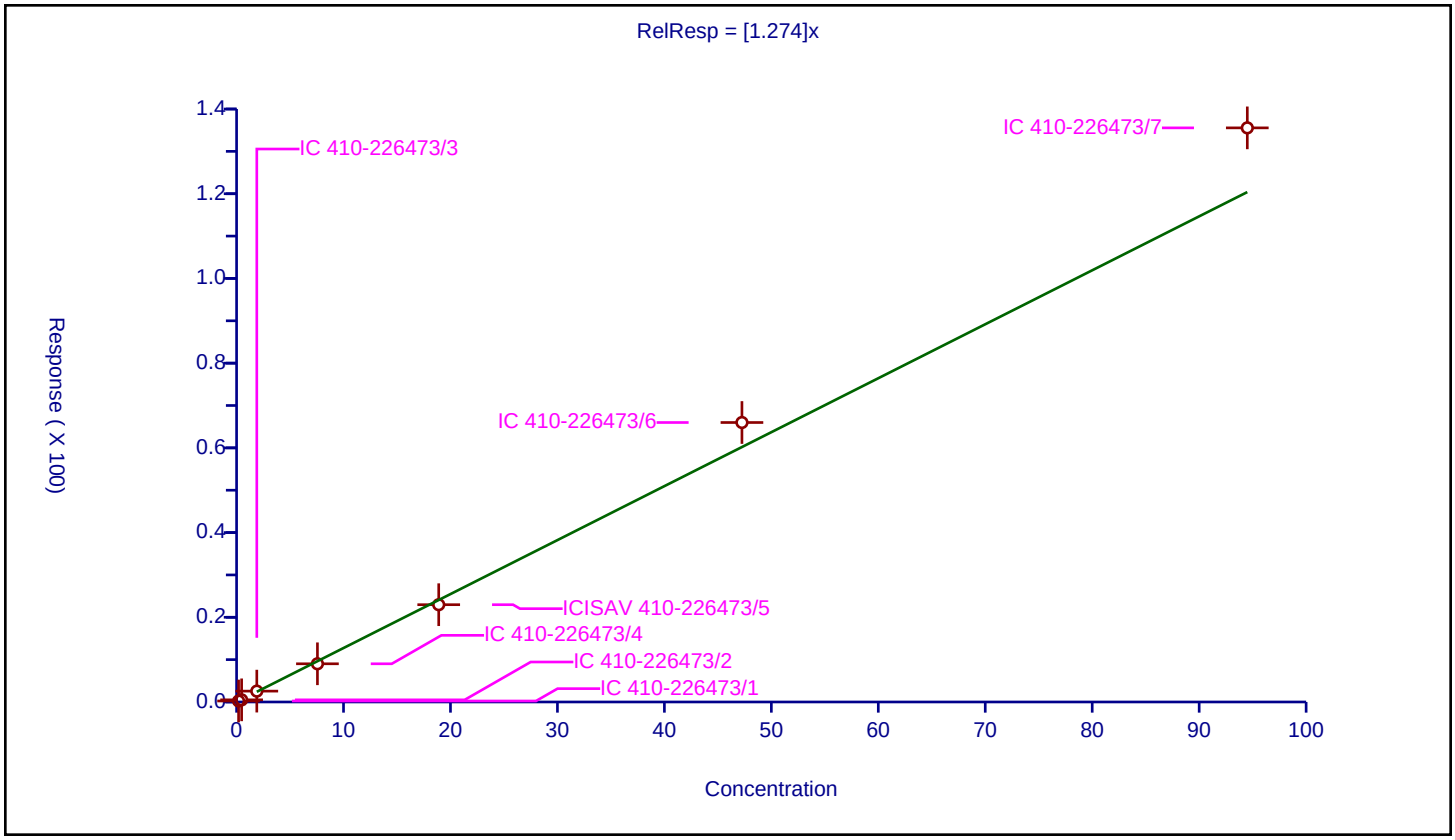
Curve Coefficients

Intercept:	0
Slope:	1.274

Error Coefficients

Standard Error:	9730000
Relative Standard Error:	10.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.189	0.236945	10.0	1809071.0	1.253676	Y
2	IC 410-226473/2	0.4725	0.504793	10.0	2025681.0	1.068345	Y
3	IC 410-226473/3	1.89	2.563277	10.0	1953952.0	1.356231	Y
4	IC 410-226473/4	7.56	9.020617	10.0	1950218.0	1.193203	Y
5	ICISAV 410-226473/5	18.9	22.970256	10.0	1904482.0	1.215357	Y
6	IC 410-226473/6	47.25	65.986983	10.0	1618817.0	1.39655	Y
7	IC 410-226473/7	94.5	135.55115	10.0	1532250.0	1.434404	Y



Calibration / PFECA G

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

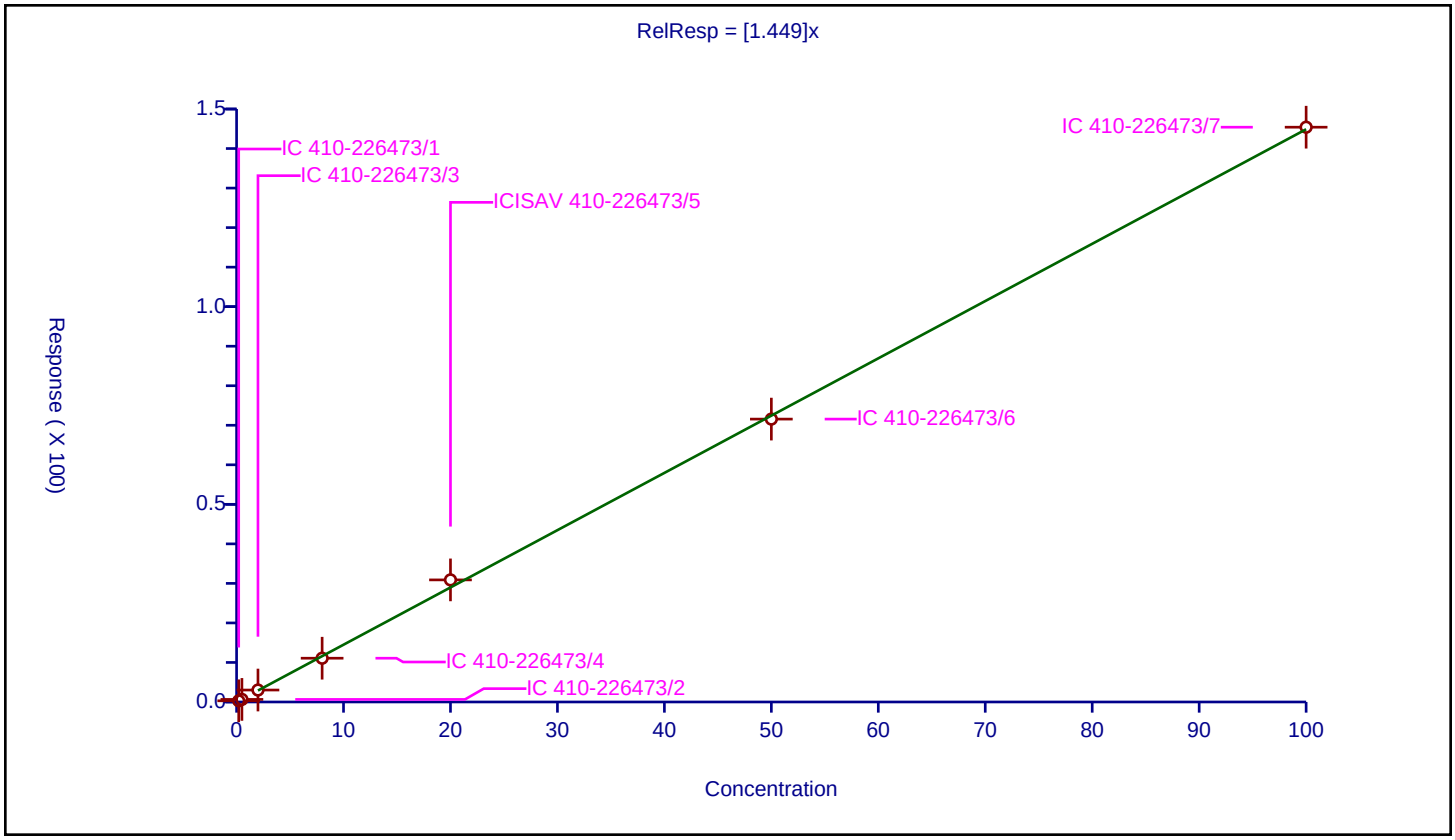
Curve Coefficients

Intercept:	0
Slope:	1.449

Error Coefficients

Standard Error:	10000000
Relative Standard Error:	5.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.302415	10.0	1539871.0	1.512075	Y
2	IC 410-226473/2	0.5	0.652499	10.0	1665382.0	1.304998	Y
3	IC 410-226473/3	2.0	3.022144	10.0	1648826.0	1.511072	Y
4	IC 410-226473/4	8.0	11.071781	10.0	1637723.0	1.383973	Y
5	ICISAV 410-226473/5	20.0	30.883625	10.0	1522365.0	1.544181	Y
6	IC 410-226473/6	50.0	71.558554	10.0	1517458.0	1.431171	Y
7	IC 410-226473/7	100.0	145.401624	10.0	1478324.0	1.454016	Y



Calibration / 5:3 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

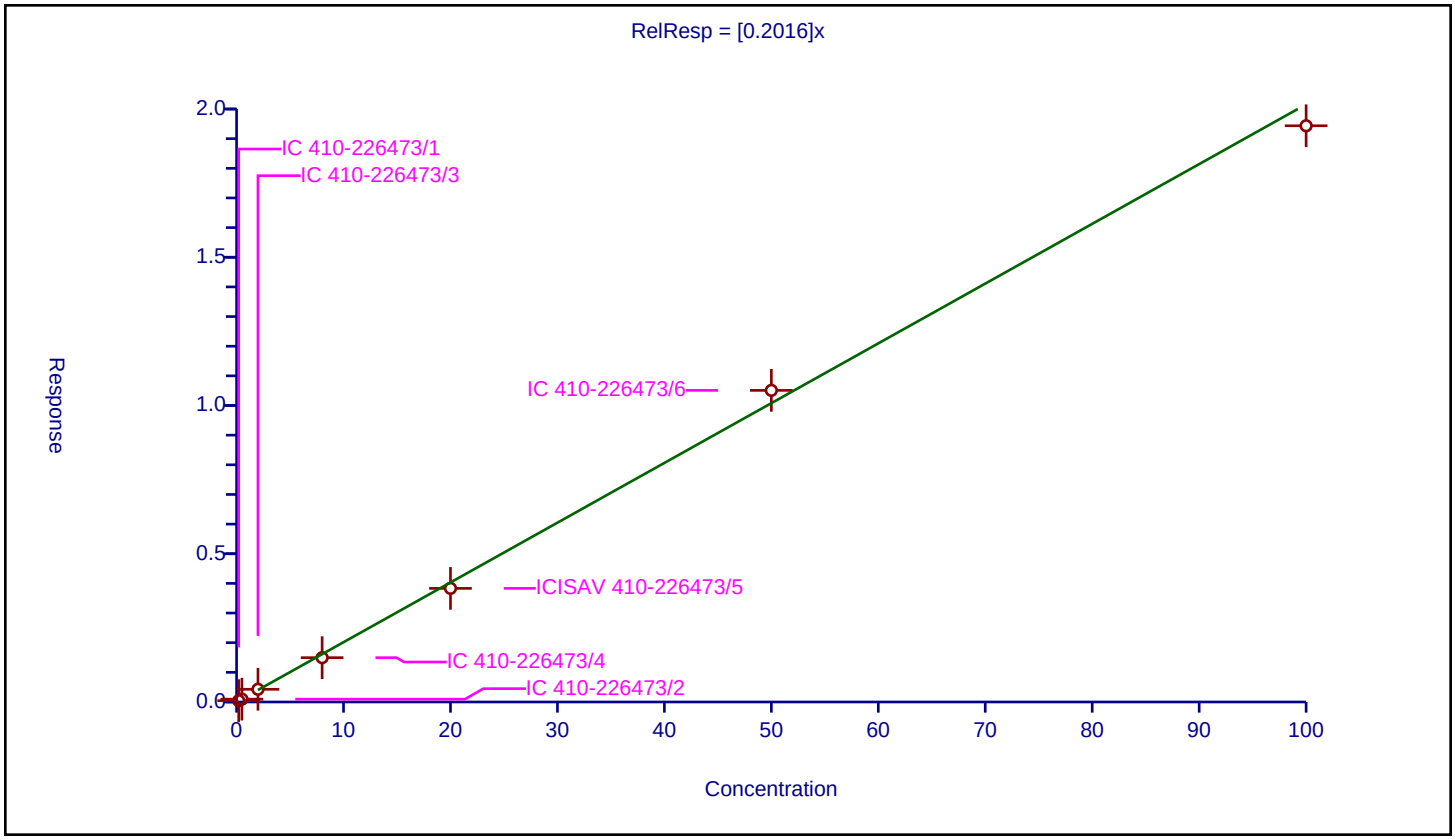
Curve Coefficients

Intercept:	0
Slope:	0.2016

Error Coefficients

Standard Error:	1440000
Relative Standard Error:	6.9
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.044592	10.0	1809071.0	0.22296	Y
2	IC 410-226473/2	0.5	0.095504	10.0	2025681.0	0.191007	Y
3	IC 410-226473/3	2.0	0.428137	10.0	1953952.0	0.214069	Y
4	IC 410-226473/4	8.0	1.494561	10.0	1950218.0	0.18682	Y
5	ICISAV 410-226473/5	20.0	3.832365	10.0	1904482.0	0.191618	Y
6	IC 410-226473/6	50.0	10.510212	10.0	1618817.0	0.210204	Y
7	IC 410-226473/7	100.0	19.435601	10.0	1532250.0	0.194356	Y



Calibration / 6:2 FTUCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

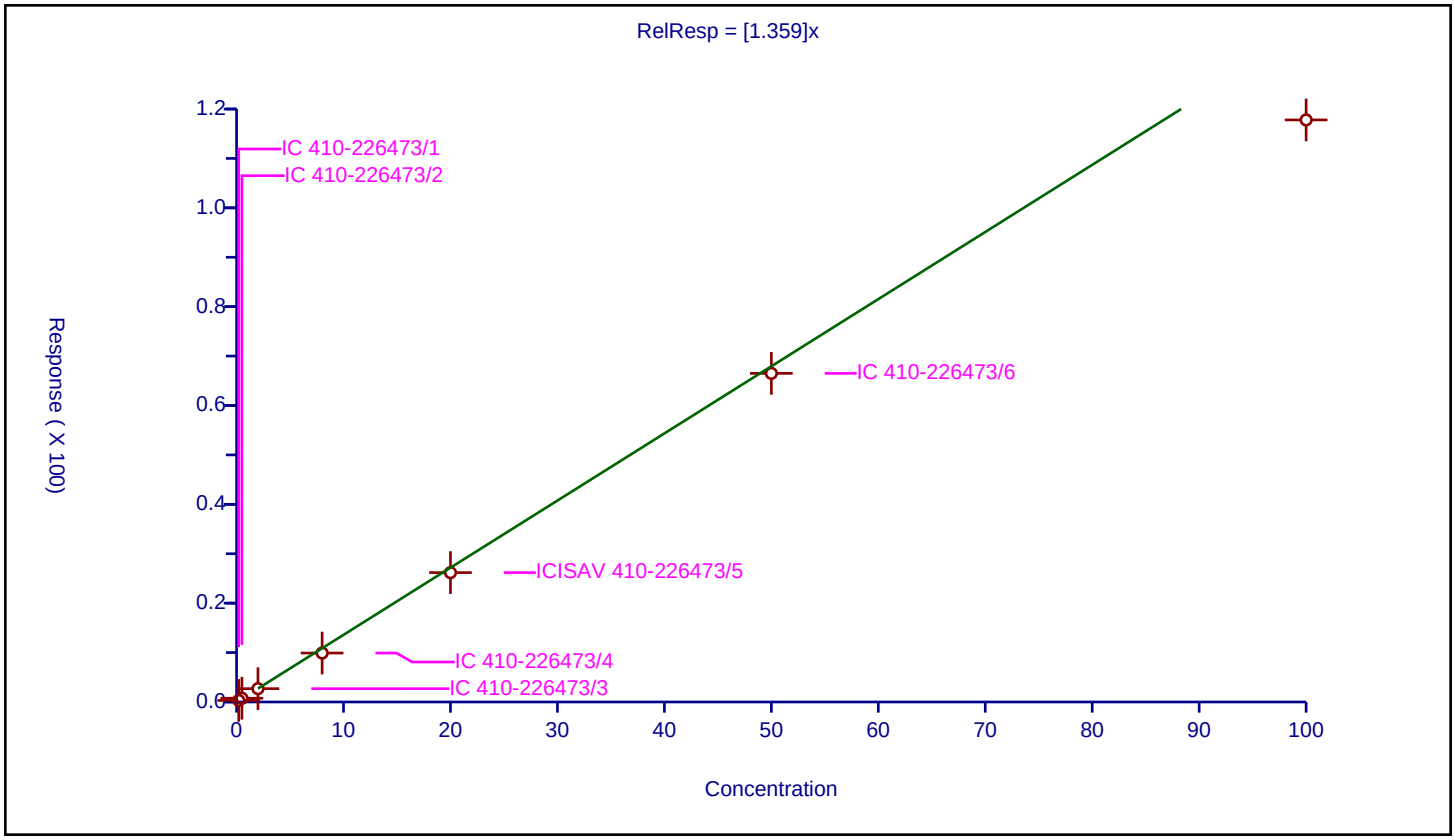
Curve Coefficients

Intercept:	0
Slope:	1.359

Error Coefficients

Standard Error:	8160000
Relative Standard Error:	10.8
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.316674	10.0	1455442.0	1.583368	Y
2	IC 410-226473/2	0.5	0.762653	10.0	1636105.0	1.525306	Y
3	IC 410-226473/3	2.0	2.69393	10.0	1813180.0	1.346965	Y
4	IC 410-226473/4	8.0	9.907311	10.0	1639032.0	1.238414	Y
5	ICISAV 410-226473/5	20.0	26.180787	10.0	1594009.0	1.309039	Y
6	IC 410-226473/6	50.0	66.503016	10.0	1486378.0	1.33006	Y
7	IC 410-226473/7	100.0	117.793979	10.0	1425476.0	1.17794	Y



Calibration / 6:2 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

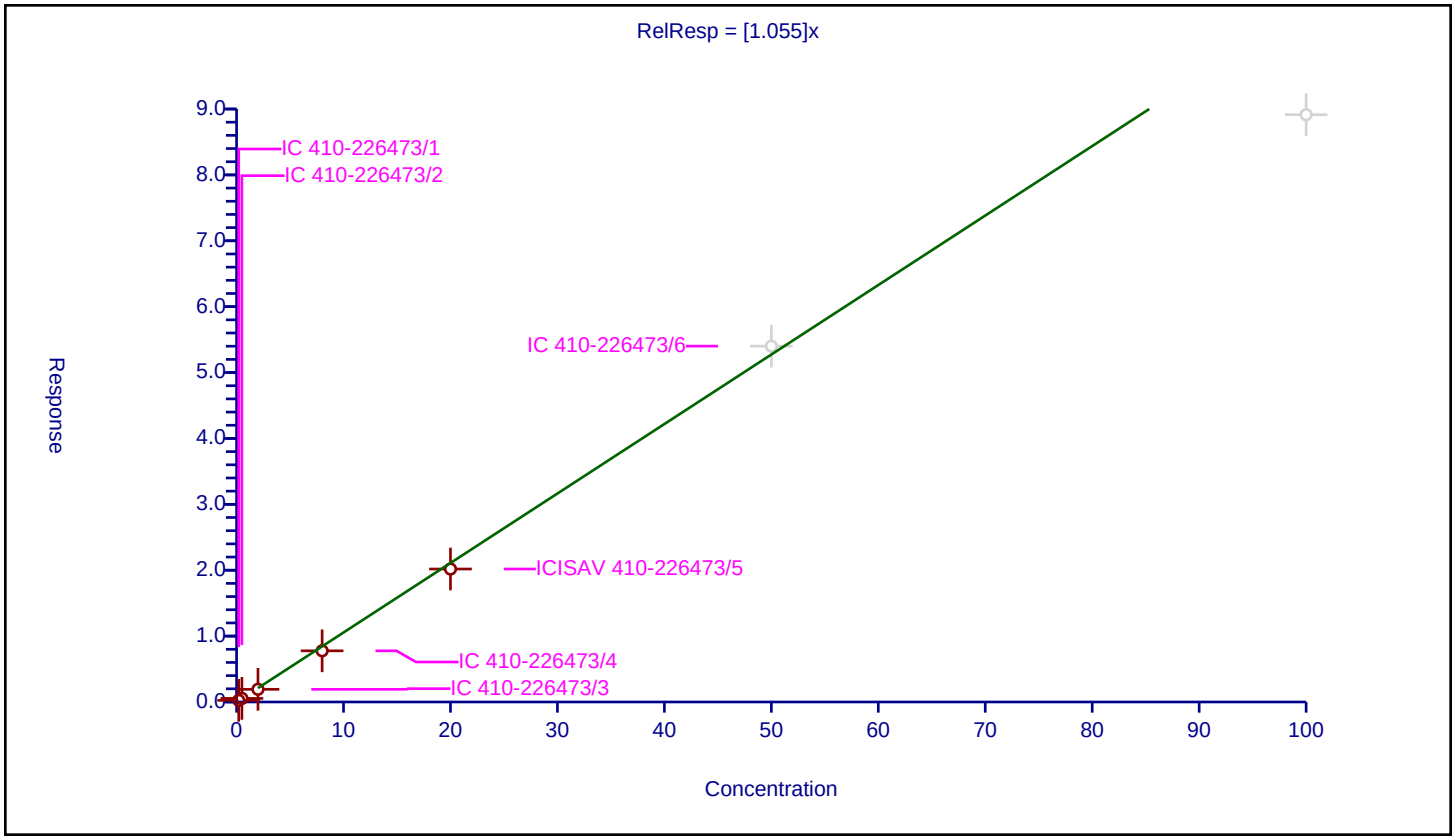
Curve Coefficients

Intercept:	0
Slope:	1.055

Error Coefficients

Standard Error:	148000
Relative Standard Error:	11.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.249228	10.0	137545.0	1.246138	Y
2	IC 410-226473/2	0.5	0.54241	10.0	150753.0	1.084821	Y
3	IC 410-226473/3	2.0	1.925395	10.0	161624.0	0.962697	Y
4	IC 410-226473/4	8.0	7.765916	10.0	149681.0	0.970739	Y
5	ICISAV 410-226473/5	20.0	20.180887	10.0	134338.0	1.009044	Y
6	IC 410-226473/6	50.0	54.009403	10.0	124425.0	1.080188	N
7	IC 410-226473/7	100.0	89.138755	10.0	130381.0	0.891388	N



Calibration / PFO4DA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

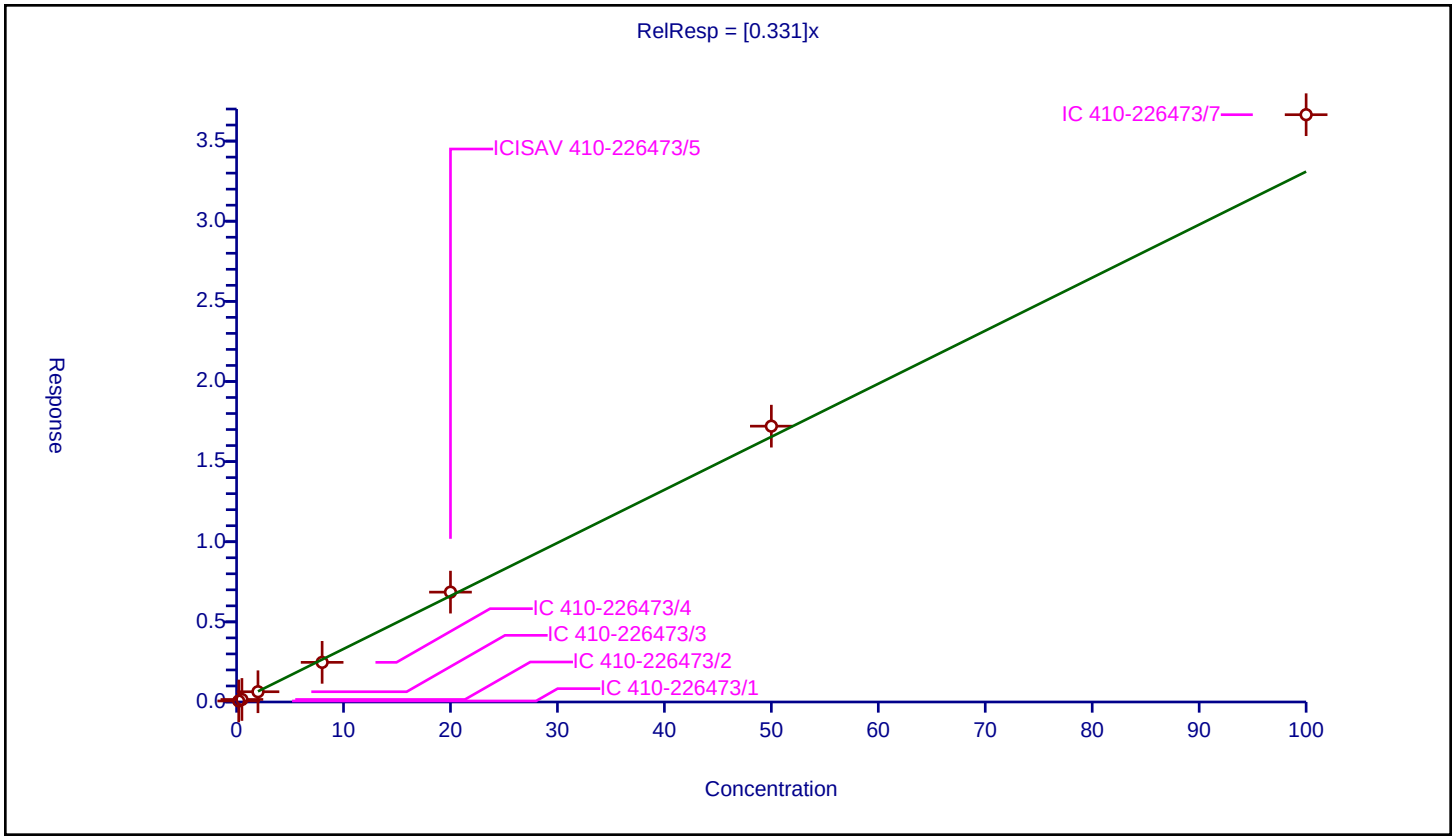
Curve Coefficients

Intercept:	0
Slope:	0.331

Error Coefficients

Standard Error:	2500000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.063921	10.0	1539871.0	0.319605	Y
2	IC 410-226473/2	0.5	0.157219	10.0	1665382.0	0.314438	Y
3	IC 410-226473/3	2.0	0.640286	10.0	1648826.0	0.320143	Y
4	IC 410-226473/4	8.0	2.472585	10.0	1637723.0	0.309073	Y
5	ICISAV 410-226473/5	20.0	6.854296	10.0	1522365.0	0.342715	Y
6	IC 410-226473/6	50.0	17.210862	10.0	1517458.0	0.344217	Y
7	IC 410-226473/7	100.0	36.645925	10.0	1478324.0	0.366459	Y



Calibration / PS Acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

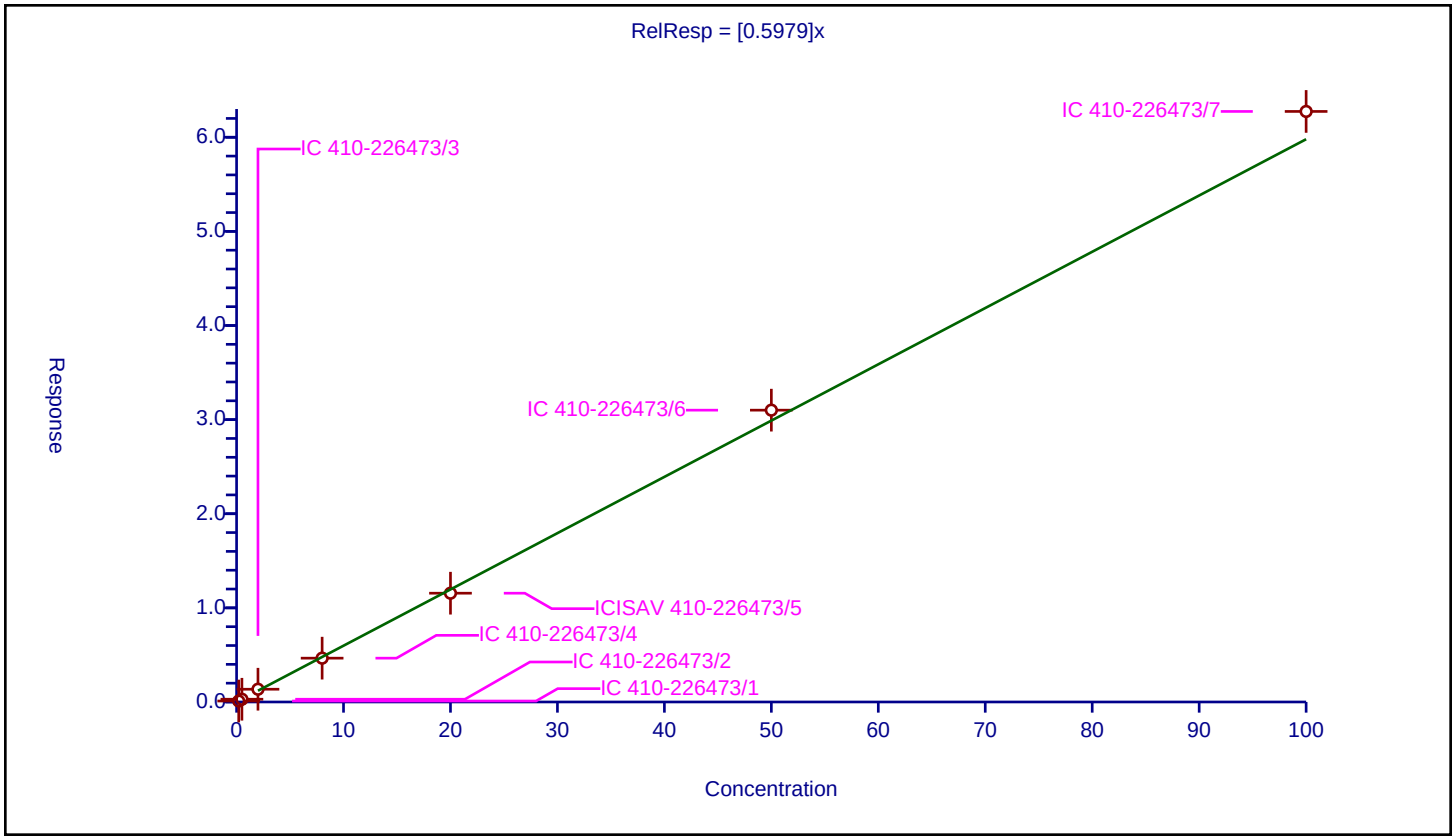
Curve Coefficients

Intercept:	0
Slope:	0.5979

Error Coefficients

Standard Error:	2980000
Relative Standard Error:	8.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.103267	9.36	944636.0	0.516336	Y
2	IC 410-226473/2	0.5	0.2918	9.36	994670.0	0.583599	Y
3	IC 410-226473/3	2.0	1.355443	9.36	1027896.0	0.677722	Y
4	IC 410-226473/4	8.0	4.657576	9.36	1036229.0	0.582197	Y
5	ICISAV 410-226473/5	20.0	11.557177	9.36	1088599.0	0.577859	Y
6	IC 410-226473/6	50.0	31.006126	9.36	1001189.0	0.620123	Y
7	IC 410-226473/7	100.0	62.743216	9.36	943866.0	0.627432	Y



Calibration / EVE Acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

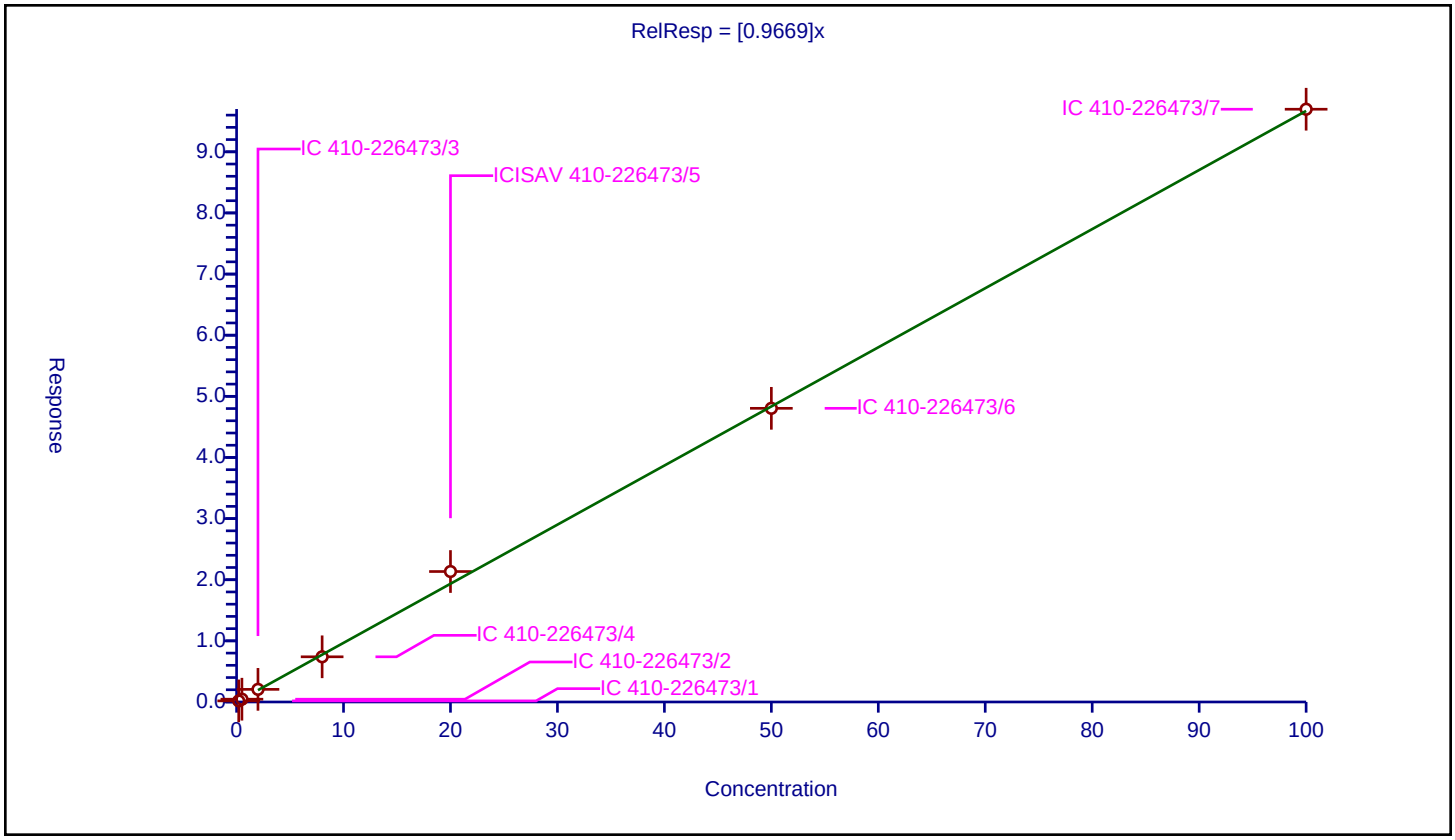
Curve Coefficients

Intercept:	0
Slope:	0.9669

Error Coefficients

Standard Error:	6720000
Relative Standard Error:	6.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.180431	10.0	1539871.0	0.902153	Y
2	IC 410-226473/2	0.5	0.456286	10.0	1665382.0	0.912571	Y
3	IC 410-226473/3	2.0	2.064742	10.0	1648826.0	1.032371	Y
4	IC 410-226473/4	8.0	7.390774	10.0	1637723.0	0.923847	Y
5	ICISAV 410-226473/5	20.0	21.342116	10.0	1522365.0	1.067106	Y
6	IC 410-226473/6	50.0	48.037837	10.0	1517458.0	0.960757	Y
7	IC 410-226473/7	100.0	96.963886	10.0	1478324.0	0.969639	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

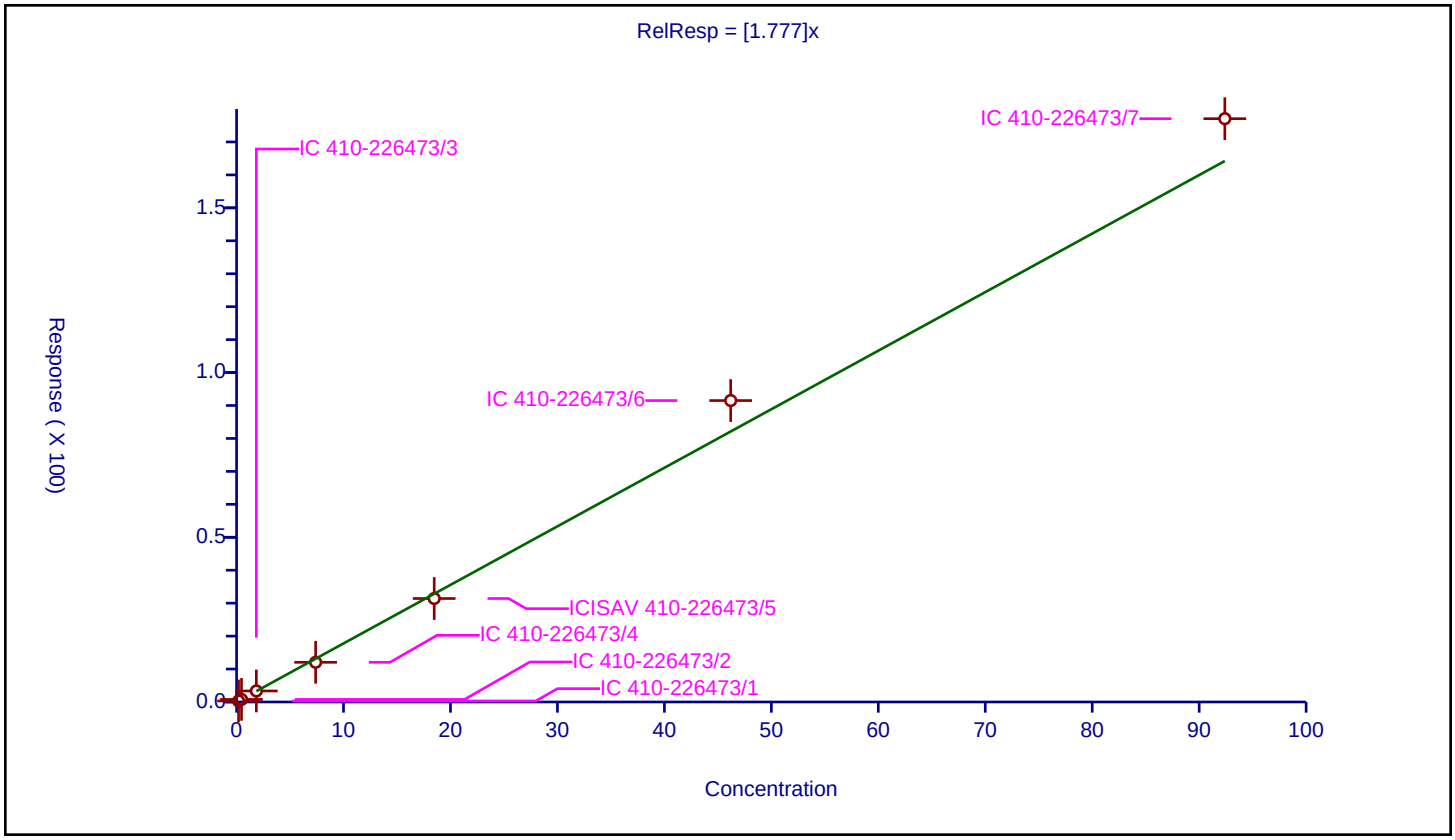
Curve Coefficients

Intercept:	0
Slope:	1.777

Error Coefficients

Standard Error:	7440000
Relative Standard Error:	7.3
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1848	0.315654	9.46	904480.0	1.708085	Y
2	IC 410-226473/2	0.462	0.782281	9.46	1026465.0	1.693248	Y
3	IC 410-226473/3	1.848	3.350289	9.46	988880.0	1.812927	Y
4	IC 410-226473/4	7.392	12.046724	9.46	1019675.0	1.629698	Y
5	ICISAV 410-226473/5	18.48	31.413995	9.46	1044892.0	1.699892	Y
6	IC 410-226473/6	46.2	91.502249	9.46	905967.0	1.980568	Y
7	IC 410-226473/7	92.4	177.071672	9.46	829889.0	1.91636	Y



Calibration / 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

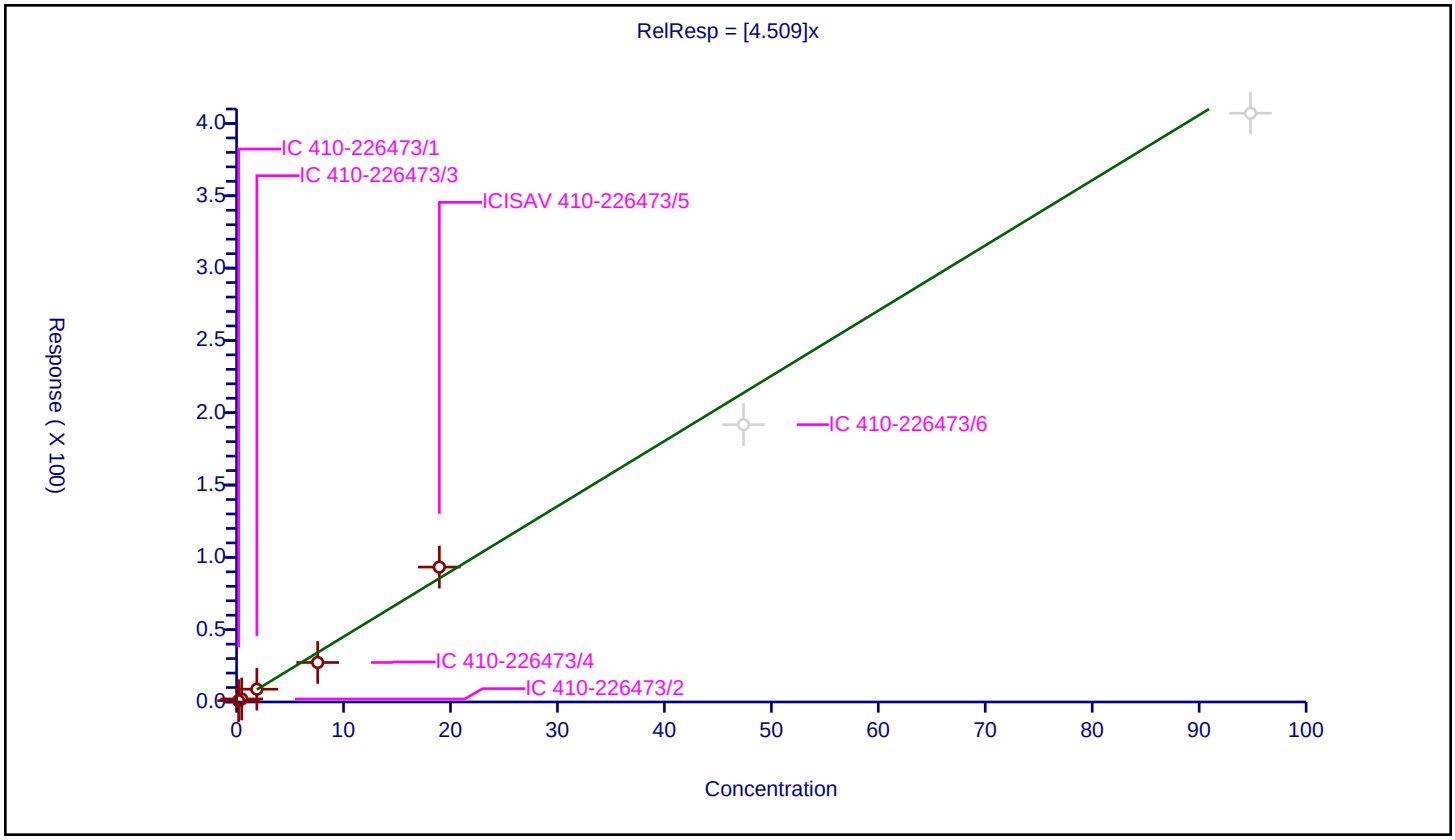
Curve Coefficients

Intercept:	0
Slope:	4.509

Error Coefficients

Standard Error:	379000
Relative Standard Error:	12.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1896	0.934677	9.5	79421.0	4.929732	Y
2	IC 410-226473/2	0.474	2.099309	9.5	89171.0	4.428922	Y
3	IC 410-226473/3	1.896	8.849308	9.5	88256.0	4.667356	Y
4	IC 410-226473/4	7.584	27.30868	9.5	90469.0	3.600828	Y
5	ICISAV 410-226473/5	18.96	93.2801	9.5	72044.0	4.919836	Y
6	IC 410-226473/6	47.4	191.771494	9.5	74976.0	4.045812	N
7	IC 410-226473/7	94.8	407.081551	9.5	61054.0	4.294109	N



Calibration / Perfluoroheptanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

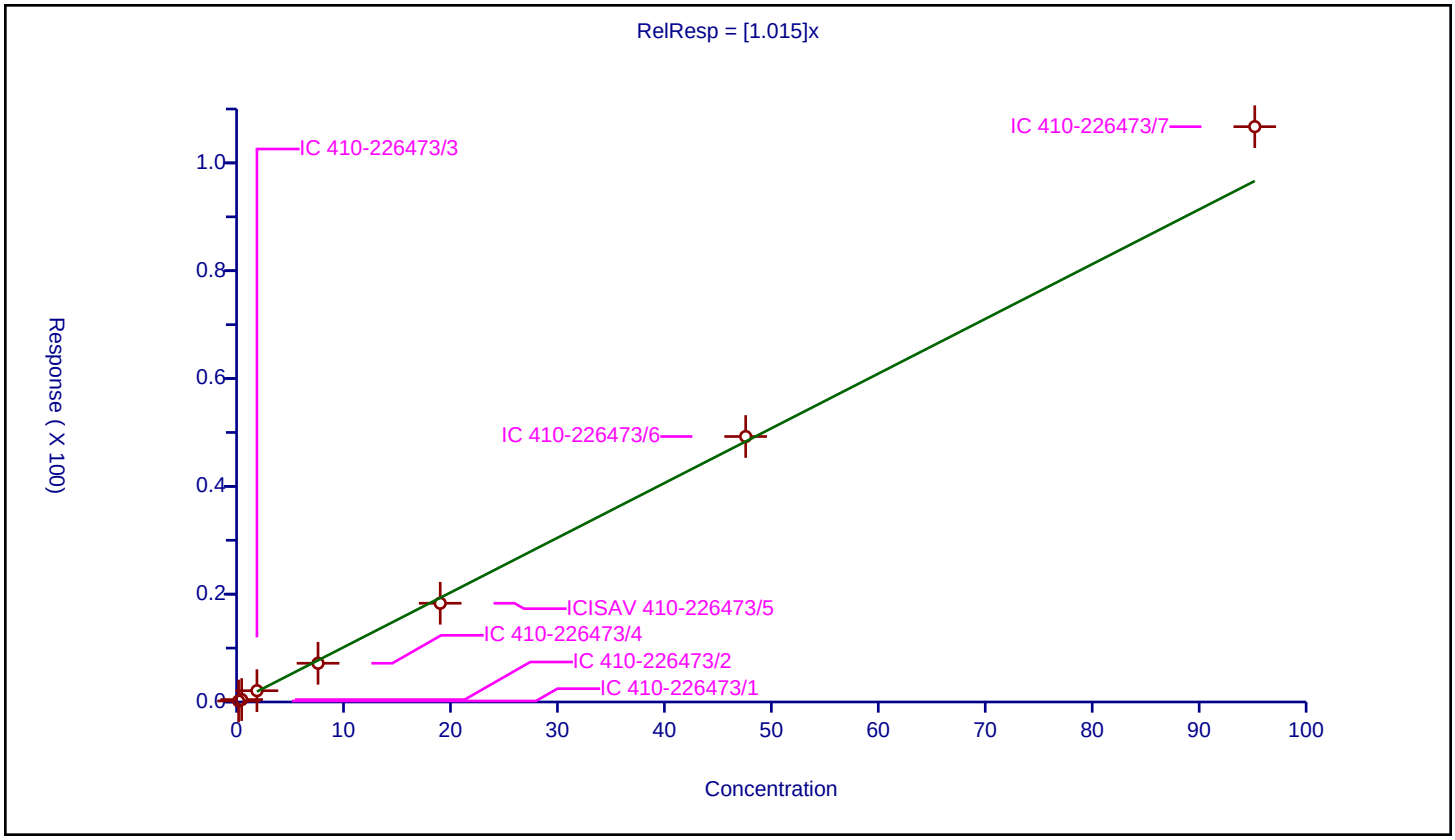
Curve Coefficients

Intercept:	0
Slope:	1.015

Error Coefficients

Standard Error:	4370000
Relative Standard Error:	7.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1904	0.191537	9.46	904480.0	1.005969	Y
2	IC 410-226473/2	0.476	0.446612	9.46	1026465.0	0.938261	Y
3	IC 410-226473/3	1.904	2.096921	9.46	988880.0	1.101324	Y
4	IC 410-226473/4	7.616	7.183171	9.46	1019675.0	0.943168	Y
5	ICISAV 410-226473/5	19.04	18.315865	9.46	1044892.0	0.961968	Y
6	IC 410-226473/6	47.6	49.246356	9.46	905967.0	1.034587	Y
7	IC 410-226473/7	95.2	106.725637	9.46	829889.0	1.121068	Y



Calibration / Perfluorooctanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

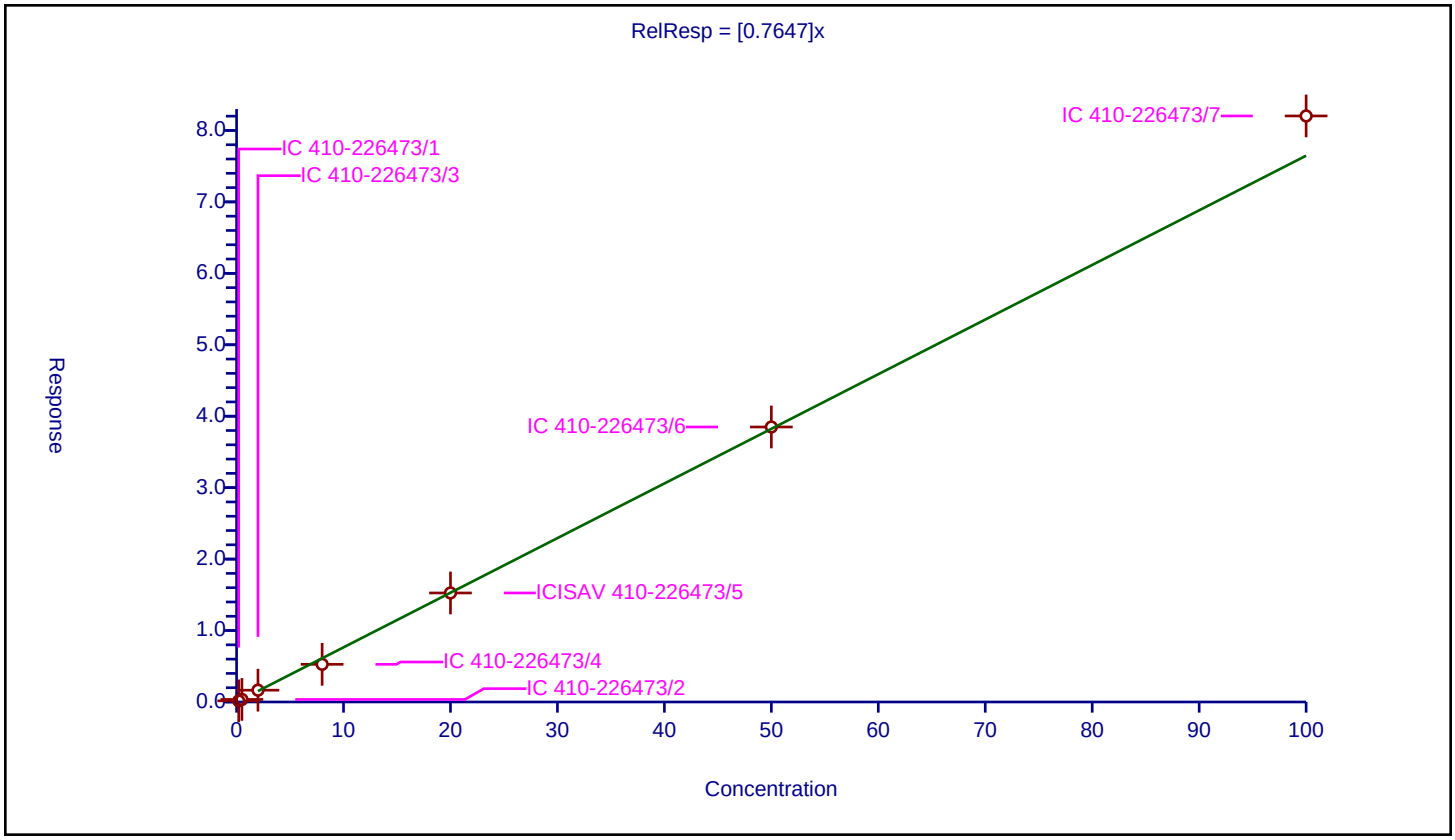
Curve Coefficients

Intercept:	0
Slope:	0.7647

Error Coefficients

Standard Error:	6580000
Relative Standard Error:	7.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.159942	10.0	2020047.0	0.799709	Y
2	IC 410-226473/2	0.5	0.357091	10.0	2171325.0	0.714181	Y
3	IC 410-226473/3	2.0	1.653173	10.0	2127092.0	0.826586	Y
4	IC 410-226473/4	8.0	5.271788	10.0	2173443.0	0.658973	Y
5	ICISAV 410-226473/5	20.0	15.262143	10.0	2066717.0	0.763107	Y
6	IC 410-226473/6	50.0	38.492174	10.0	1805759.0	0.769843	Y
7	IC 410-226473/7	100.0	82.028033	10.0	1725815.0	0.82028	Y



Calibration / TAF

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

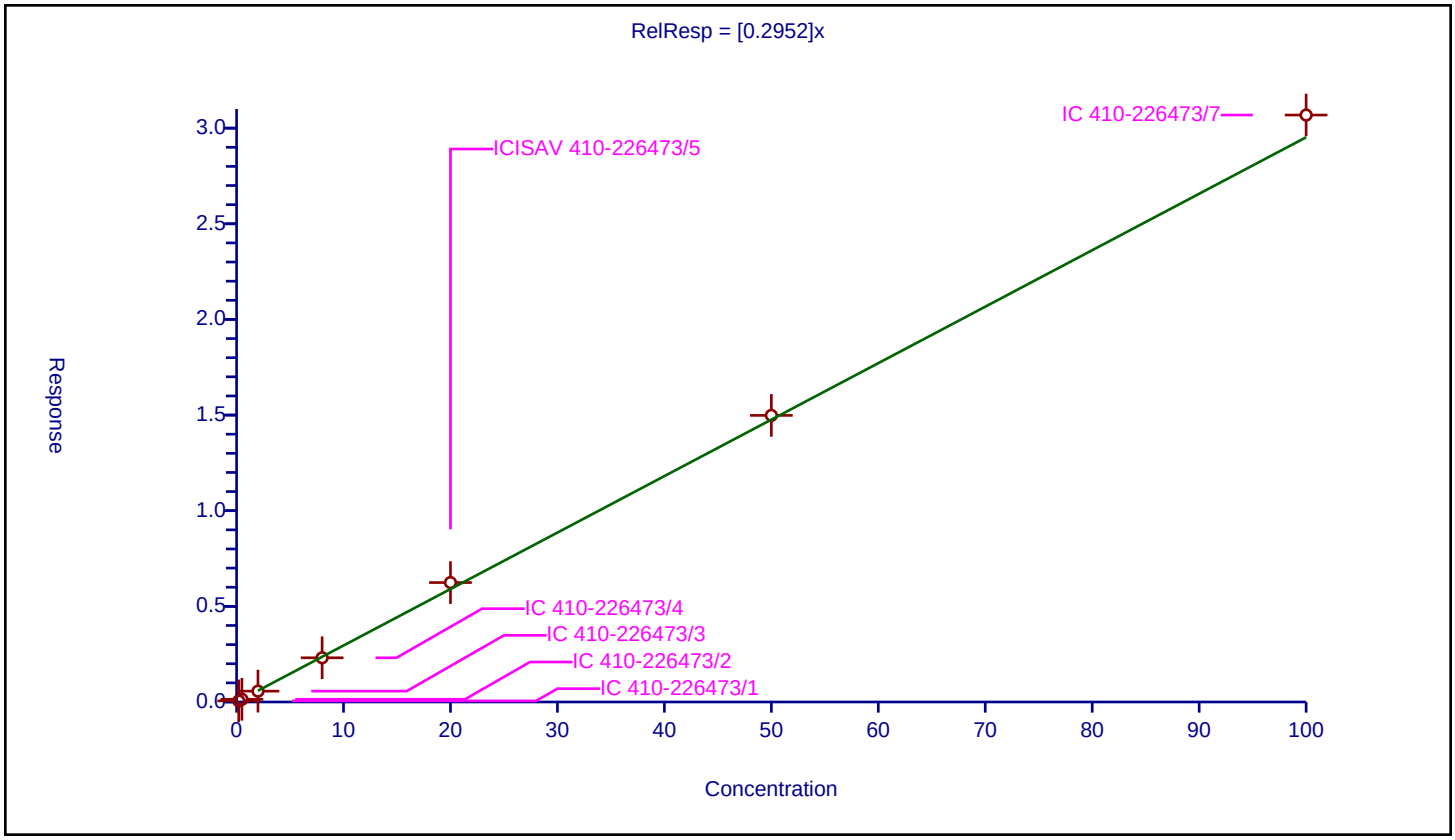
Curve Coefficients

Intercept:	0
Slope:	0.2952

Error Coefficients

Standard Error:	2110000
Relative Standard Error:	3.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.058492	10.0	1539871.0	0.29246	Y
2	IC 410-226473/2	0.5	0.141673	10.0	1665382.0	0.283346	Y
3	IC 410-226473/3	2.0	0.566342	10.0	1648826.0	0.283171	Y
4	IC 410-226473/4	8.0	2.311099	10.0	1637723.0	0.288887	Y
5	ICISAV 410-226473/5	20.0	6.243503	10.0	1522365.0	0.312175	Y
6	IC 410-226473/6	50.0	14.982695	10.0	1517458.0	0.299654	Y
7	IC 410-226473/7	100.0	30.6846	10.0	1478324.0	0.306846	Y



Calibration / Perfluorooctanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

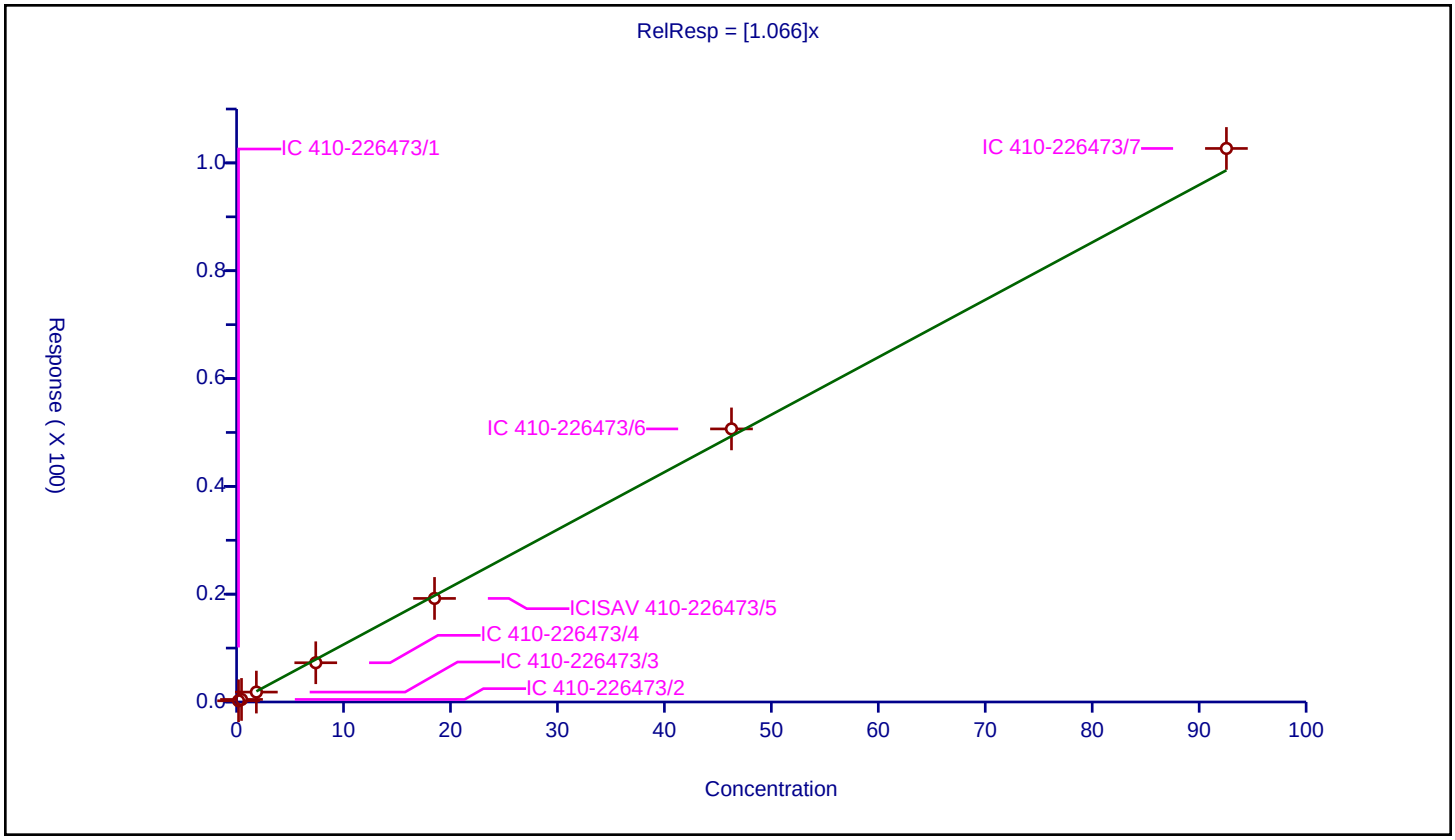
Curve Coefficients

Intercept:	0
Slope:	1.066

Error Coefficients

Standard Error:	4390000
Relative Standard Error:	7.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1851	0.225965	9.565	848072.0	1.220774	Y
2	IC 410-226473/2	0.46275	0.472757	9.565	999904.0	1.021626	Y
3	IC 410-226473/3	1.851	1.837538	9.565	1016763.0	0.992727	Y
4	IC 410-226473/4	7.404	7.279954	9.565	1007256.0	0.983246	Y
5	ICISAV 410-226473/5	18.51	19.209175	9.565	956684.0	1.037773	Y
6	IC 410-226473/6	46.275	50.658544	9.565	934557.0	1.094728	Y
7	IC 410-226473/7	92.55	102.684826	9.565	868688.0	1.109506	Y



Calibration / Perfluorononanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

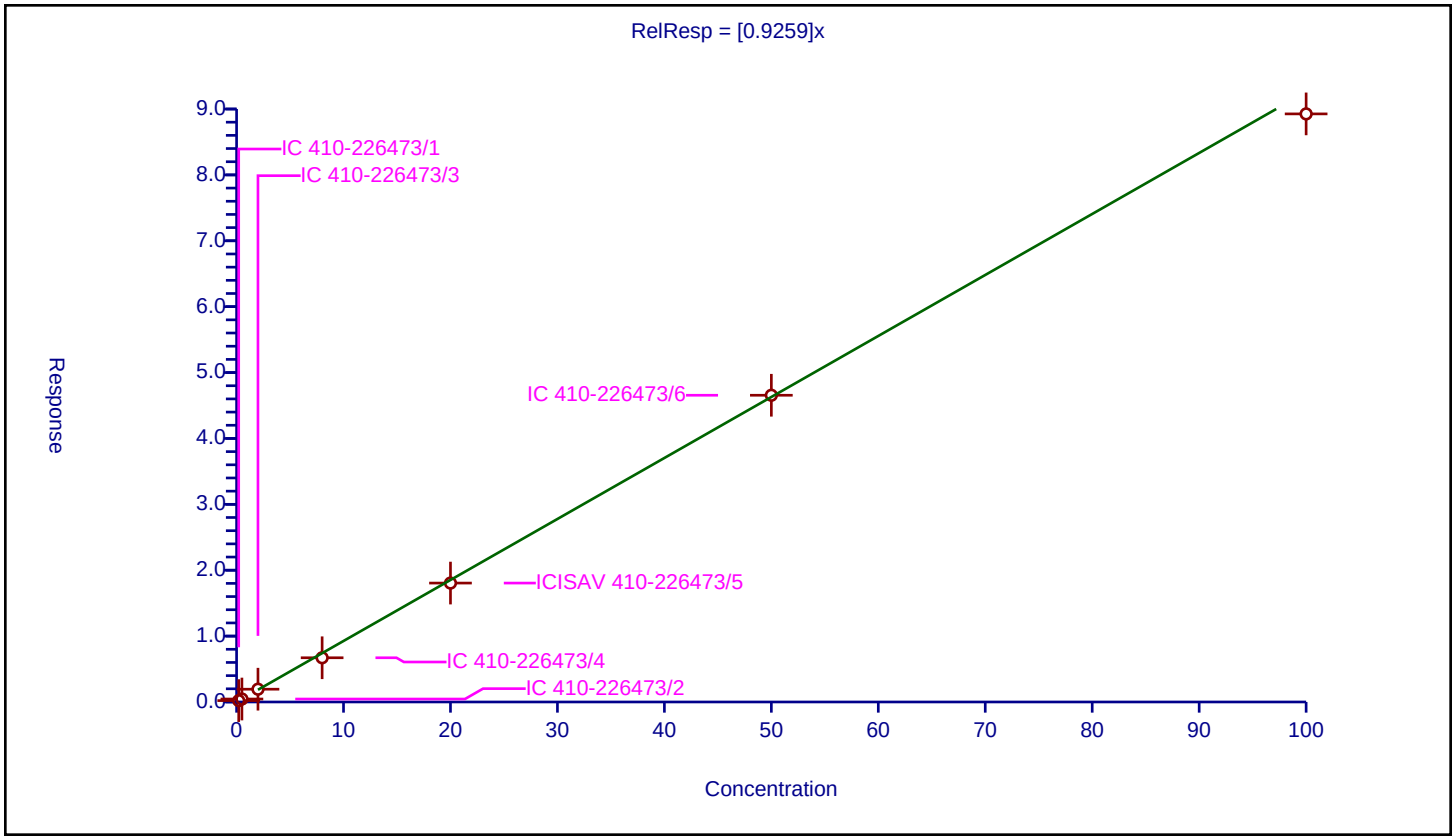
Curve Coefficients

Intercept:	0
Slope:	0.9259

Error Coefficients

Standard Error:	6450000
Relative Standard Error:	6.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.208082	10.0	1555830.0	1.040409	Y
2	IC 410-226473/2	0.5	0.452753	10.0	1774852.0	0.905506	Y
3	IC 410-226473/3	2.0	1.940658	10.0	1741409.0	0.970329	Y
4	IC 410-226473/4	8.0	6.71079	10.0	1749557.0	0.838849	Y
5	ICISAV 410-226473/5	20.0	18.048326	10.0	1615951.0	0.902416	Y
6	IC 410-226473/6	50.0	46.556195	10.0	1553276.0	0.931124	Y
7	IC 410-226473/7	100.0	89.259629	10.0	1533501.0	0.892596	Y



Calibration / 7:3 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

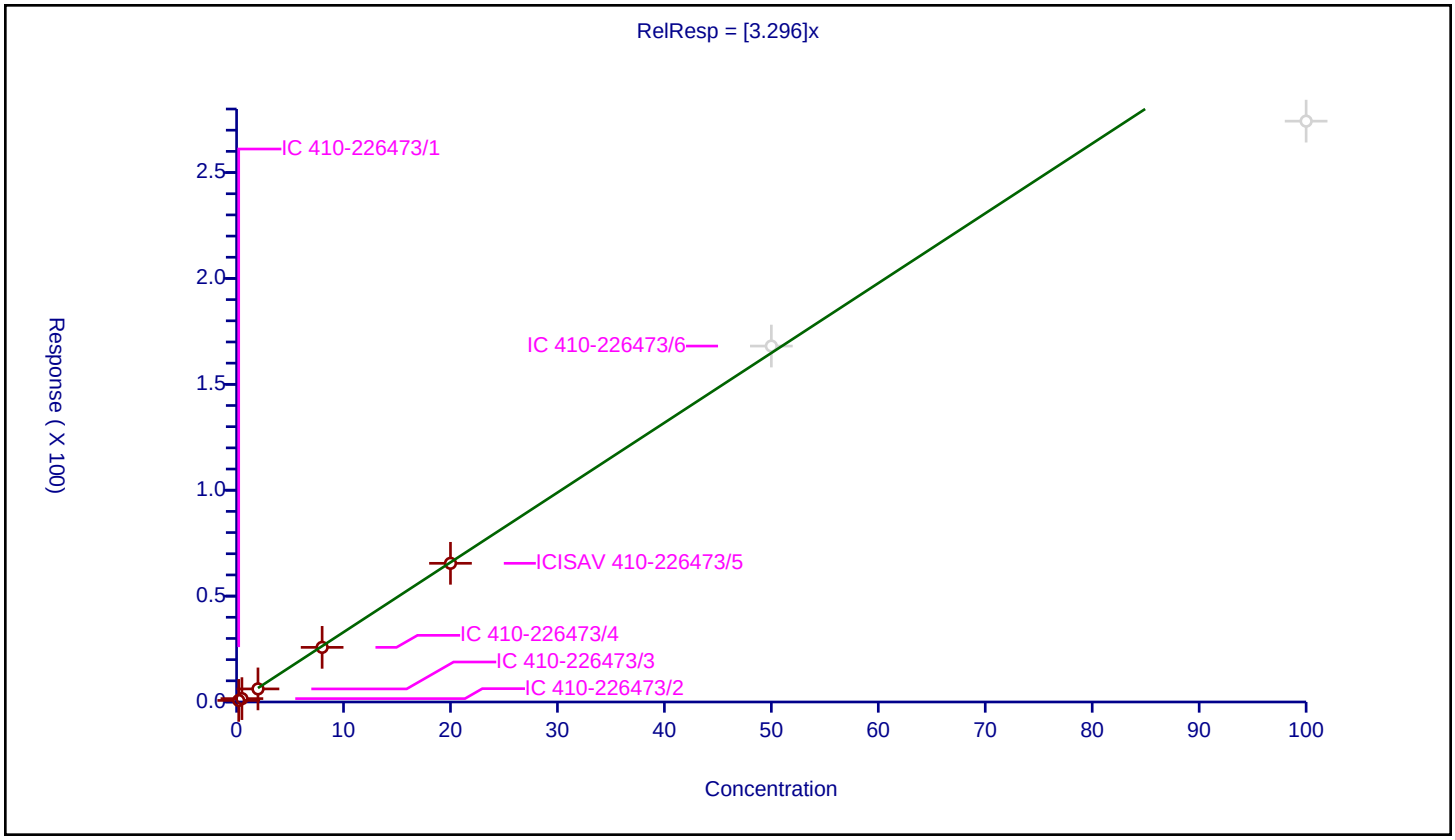
Curve Coefficients

Intercept:	0
Slope:	3.296

Error Coefficients

Standard Error:	483000
Relative Standard Error:	7.0
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.738595	10.0	137545.0	3.692973	Y
2	IC 410-226473/2	0.5	1.598973	10.0	150753.0	3.197946	Y
3	IC 410-226473/3	2.0	6.181136	10.0	161624.0	3.090568	Y
4	IC 410-226473/4	8.0	25.798866	10.0	149681.0	3.224858	Y
5	ICISAV 410-226473/5	20.0	65.482812	10.0	134338.0	3.274141	Y
6	IC 410-226473/6	50.0	168.074744	10.0	124425.0	3.361495	N
7	IC 410-226473/7	100.0	274.267876	10.0	130381.0	2.742679	N



Calibration / 8:2 FTUCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

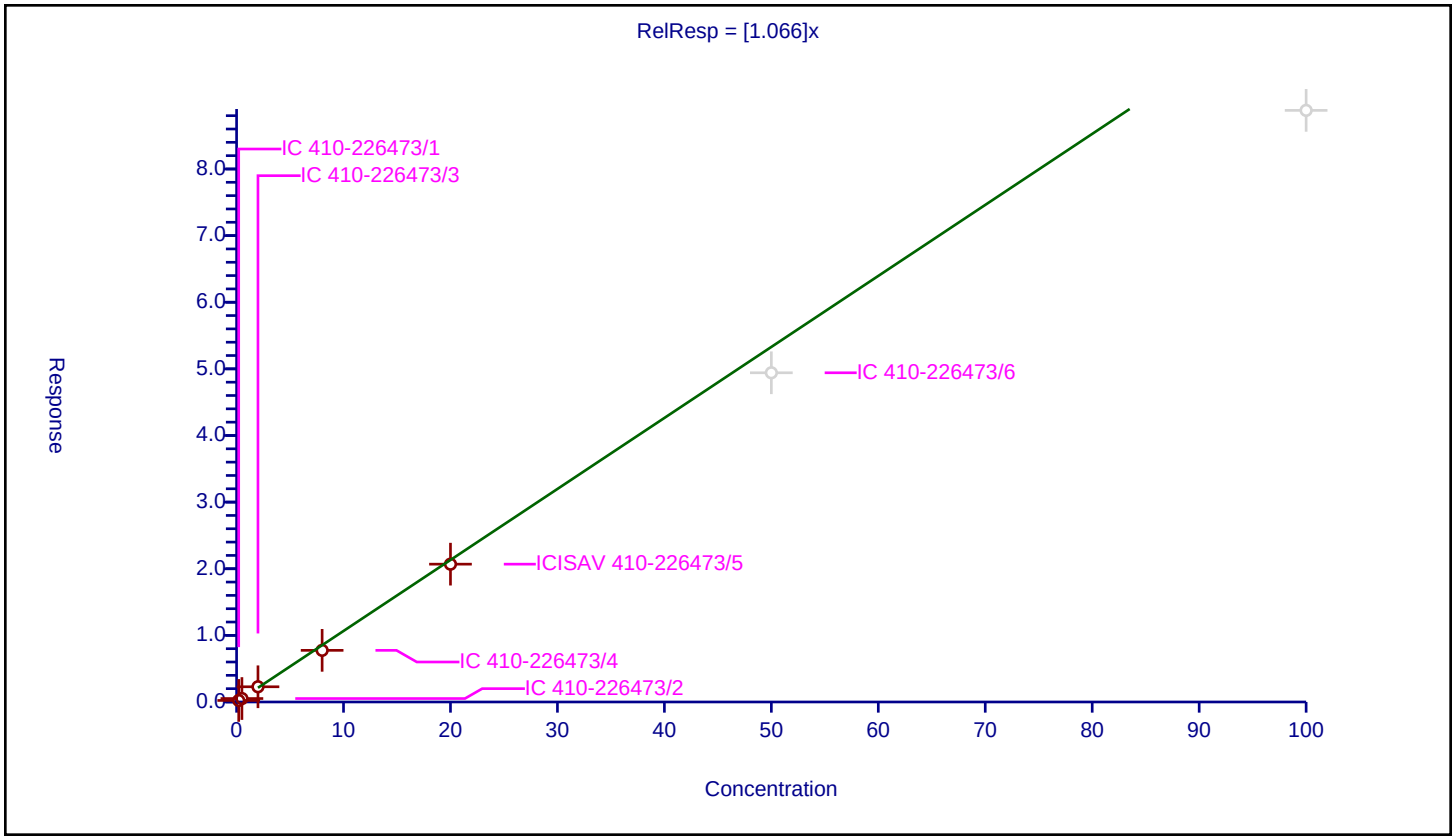
Curve Coefficients

Intercept:	0
Slope:	1.066

Error Coefficients

Standard Error:	2170000
Relative Standard Error:	7.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.22907	10.0	1962937.0	1.14535	Y
2	IC 410-226473/2	0.5	0.519298	10.0	2217146.0	1.038596	Y
3	IC 410-226473/3	2.0	2.284379	10.0	2147770.0	1.142189	Y
4	IC 410-226473/4	8.0	7.749279	10.0	2235812.0	0.96866	Y
5	ICISAV 410-226473/5	20.0	20.686532	10.0	1911155.0	1.034327	Y
6	IC 410-226473/6	50.0	49.412433	10.0	1795371.0	0.988249	N
7	IC 410-226473/7	100.0	88.794662	10.0	1716324.0	0.887947	N



Calibration / 8:2 FTCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

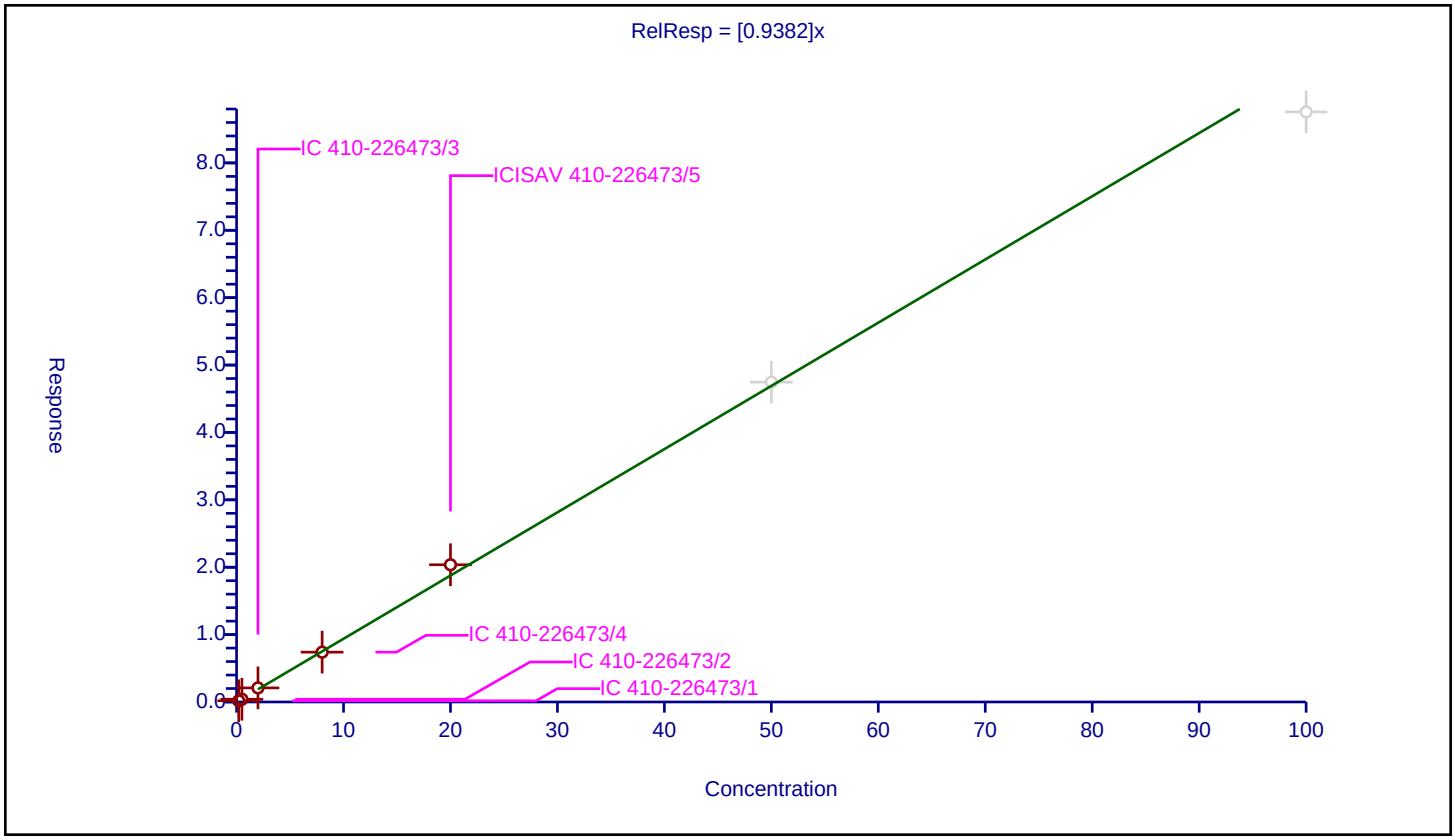
Curve Coefficients

Intercept:	0
Slope:	0.9382

Error Coefficients

Standard Error:	138000
Relative Standard Error:	10.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.178275	10.0	139896.0	0.891376	Y
2	IC 410-226473/2	0.5	0.405821	10.0	144916.0	0.811643	Y
3	IC 410-226473/3	2.0	2.090407	10.0	152908.0	1.045204	Y
4	IC 410-226473/4	8.0	7.393256	10.0	140359.0	0.924157	Y
5	ICISAV 410-226473/5	20.0	20.368488	10.0	124183.0	1.018424	Y
6	IC 410-226473/6	50.0	47.466799	10.0	117239.0	0.949336	N
7	IC 410-226473/7	100.0	87.566967	10.0	109830.0	0.87567	N



Calibration / 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

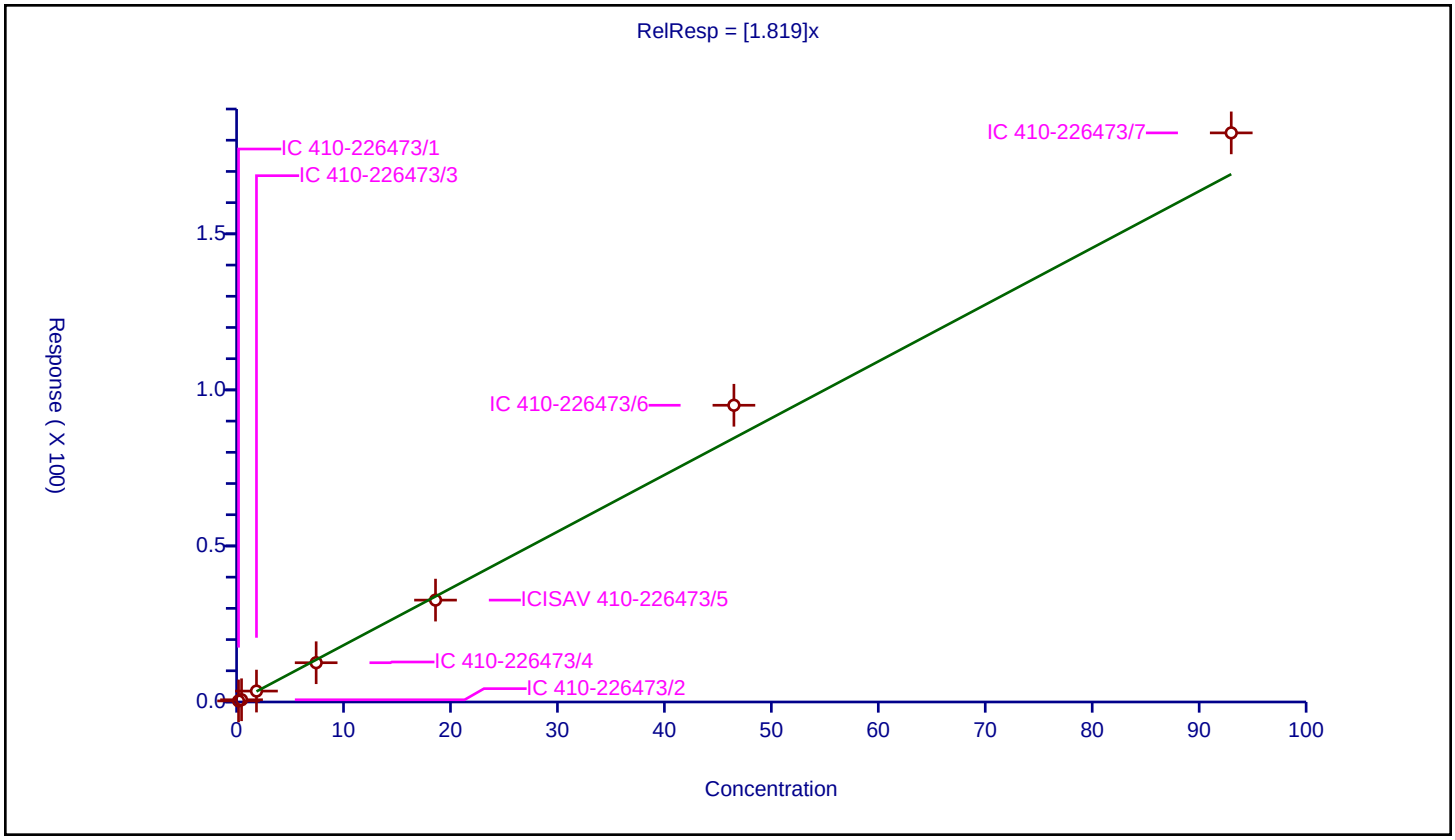
Curve Coefficients

Intercept:	0
Slope:	1.819

Error Coefficients

Standard Error:	7890000
Relative Standard Error:	9.5
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.186	0.346848	9.565	848072.0	1.864777	Y
2	IC 410-226473/2	0.465	0.712135	9.565	999904.0	1.531473	Y
3	IC 410-226473/3	1.86	3.500242	9.565	1016763.0	1.881851	Y
4	IC 410-226473/4	7.44	12.581881	9.565	1007256.0	1.691113	Y
5	ICISAV 410-226473/5	18.6	32.642231	9.565	956684.0	1.754959	Y
6	IC 410-226473/6	46.5	95.077721	9.565	934557.0	2.044682	Y
7	IC 410-226473/7	93.0	182.349978	9.565	868688.0	1.960752	Y



Calibration / Perfluorononanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

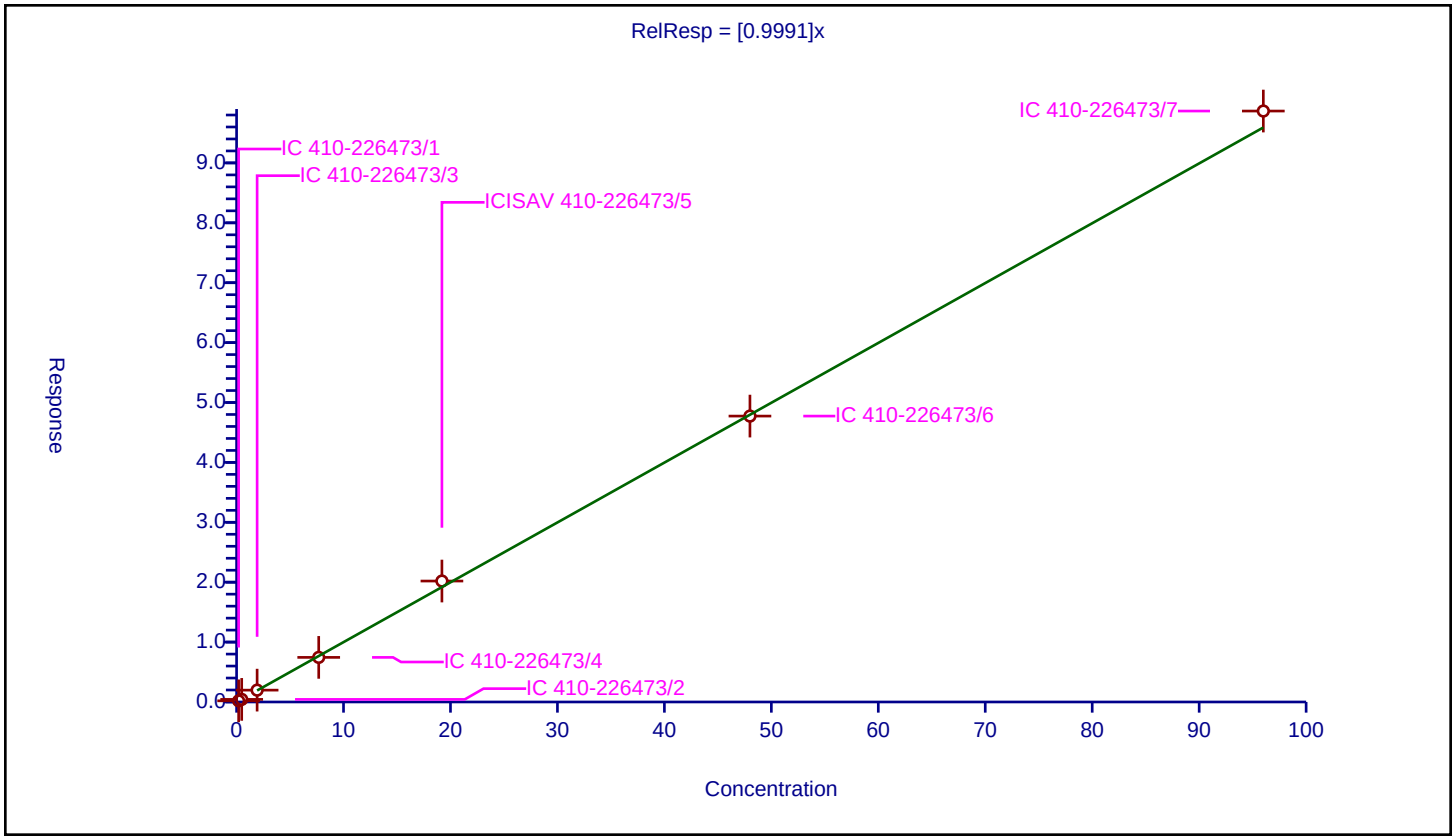
Curve Coefficients

Intercept:	0
Slope:	0.9991

Error Coefficients

Standard Error:	4220000
Relative Standard Error:	5.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.192	0.195536	9.565	848072.0	1.018415	Y
2	IC 410-226473/2	0.48	0.432896	9.565	999904.0	0.901867	Y
3	IC 410-226473/3	1.92	1.978178	9.565	1016763.0	1.030301	Y
4	IC 410-226473/4	7.68	7.445091	9.565	1007256.0	0.969413	Y
5	ICISAV 410-226473/5	19.2	20.190906	9.565	956684.0	1.05161	Y
6	IC 410-226473/6	48.0	47.732969	9.565	934557.0	0.994437	Y
7	IC 410-226473/7	96.0	98.662494	9.565	868688.0	1.027734	Y



Calibration / Perfluorodecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

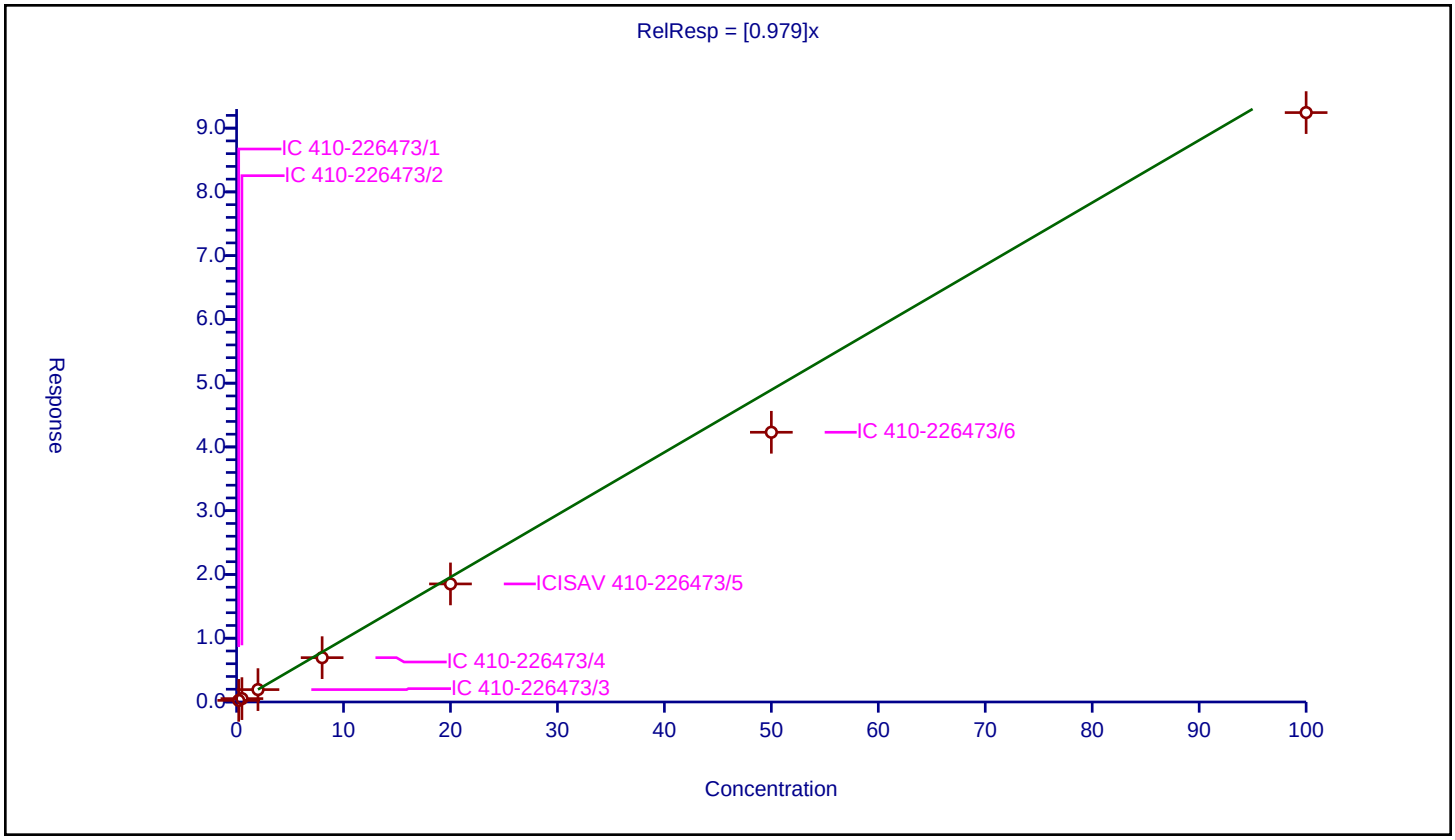
Curve Coefficients

Intercept:	0
Slope:	0.979

Error Coefficients

Standard Error:	6900000
Relative Standard Error:	14.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.970

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.25139	10.0	1815906.0	1.256948	Y
2	IC 410-226473/2	0.5	0.529723	10.0	1913566.0	1.059446	Y
3	IC 410-226473/3	2.0	1.942162	10.0	1968353.0	0.971081	Y
4	IC 410-226473/4	8.0	6.951232	10.0	1977943.0	0.868904	Y
5	ICISAV 410-226473/5	20.0	18.517888	10.0	1873145.0	0.925894	Y
6	IC 410-226473/6	50.0	42.303743	10.0	1784531.0	0.846075	Y
7	IC 410-226473/7	100.0	92.440653	10.0	1584027.0	0.924407	Y



Calibration / 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

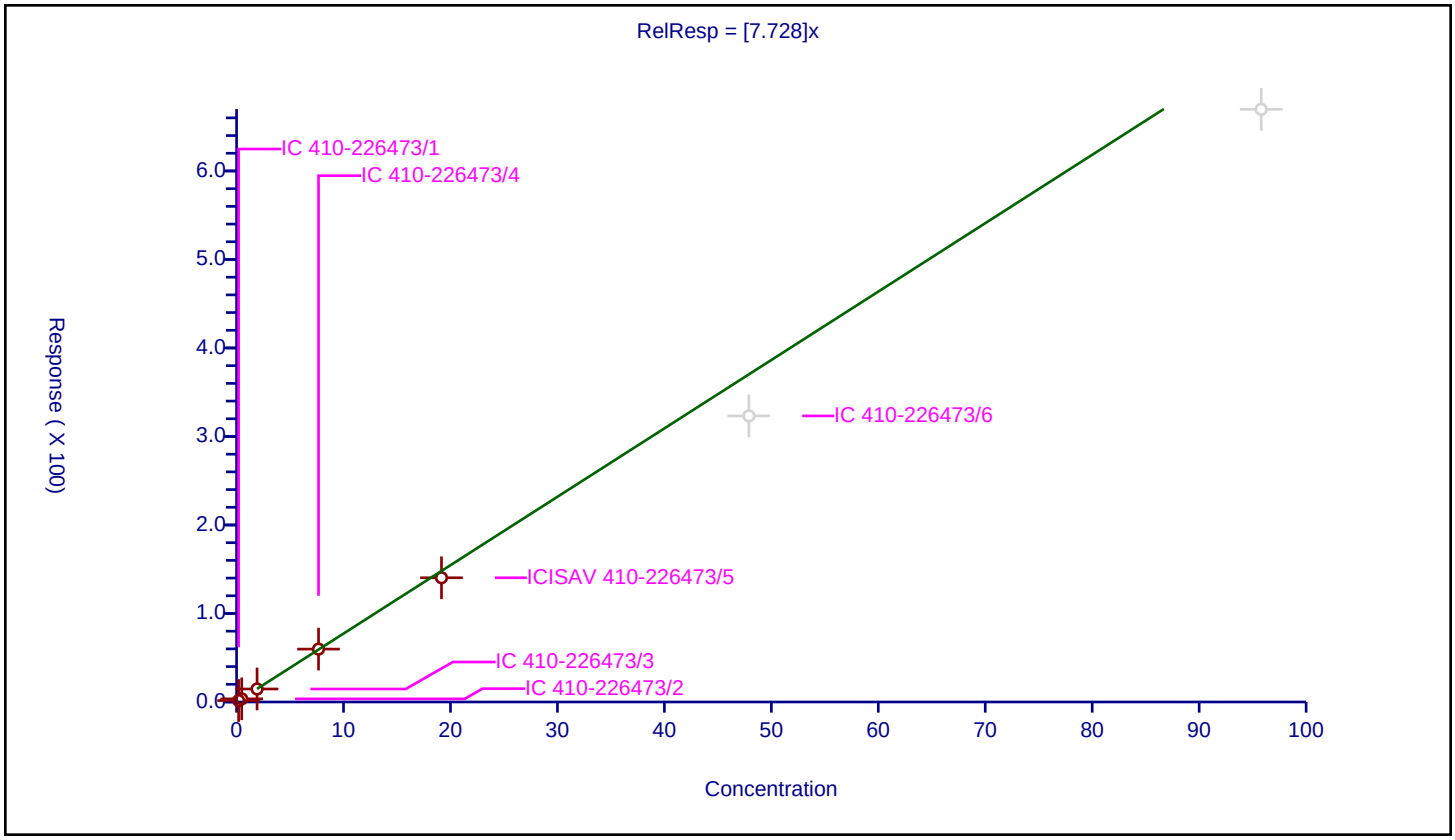
Curve Coefficients

Intercept:	0
Slope:	7.728

Error Coefficients

Standard Error:	388000
Relative Standard Error:	5.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1916	1.621191	9.58	48243.0	8.461331	Y
2	IC 410-226473/2	0.479	3.542034	9.58	48573.0	7.394643	Y
3	IC 410-226473/3	1.916	14.678121	9.58	54799.0	7.660815	Y
4	IC 410-226473/4	7.664	59.769574	9.58	46298.0	7.798744	Y
5	ICISAV 410-226473/5	19.16	140.365179	9.58	48773.0	7.325949	Y
6	IC 410-226473/6	47.9	323.215917	9.58	44746.0	6.747723	N
7	IC 410-226473/7	95.8	669.633184	9.58	39338.0	6.989908	N



Calibration / Perfluorooctanesulfonamide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

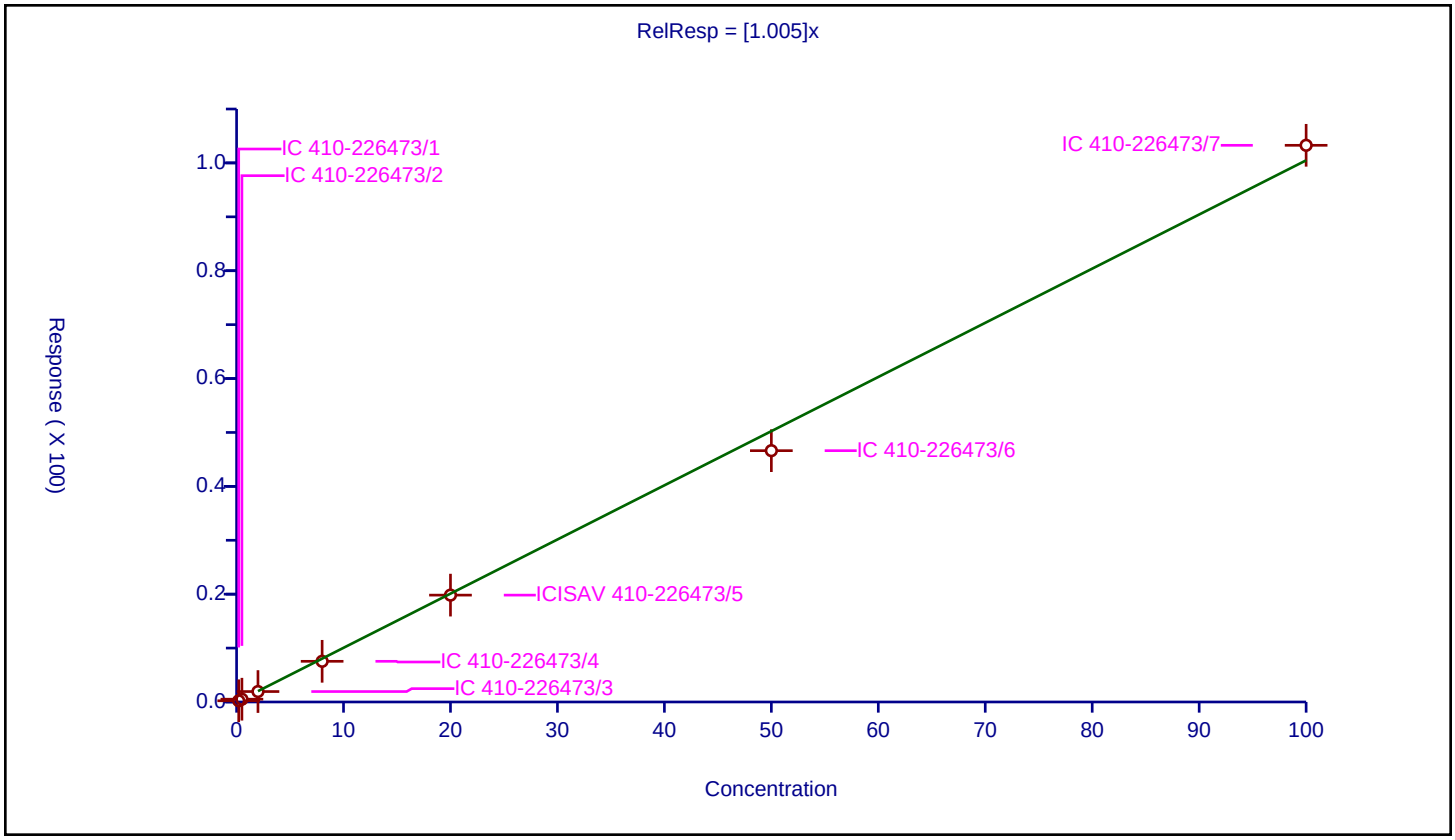
Curve Coefficients

Intercept:	0
Slope:	1.005

Error Coefficients

Standard Error:	7460000
Relative Standard Error:	6.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.226028	10.0	1605731.0	1.130139	Y
2	IC 410-226473/2	0.5	0.51734	10.0	1812715.0	1.03468	Y
3	IC 410-226473/3	2.0	1.937575	10.0	1868144.0	0.968788	Y
4	IC 410-226473/4	8.0	7.548315	10.0	1882885.0	0.943539	Y
5	ICISAV 410-226473/5	20.0	19.824491	10.0	1759508.0	0.991225	Y
6	IC 410-226473/6	50.0	46.620529	10.0	1736020.0	0.932411	Y
7	IC 410-226473/7	100.0	103.269117	10.0	1542970.0	1.032691	Y



Calibration / N-methylperfluorooctanesulfonamidoacetic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

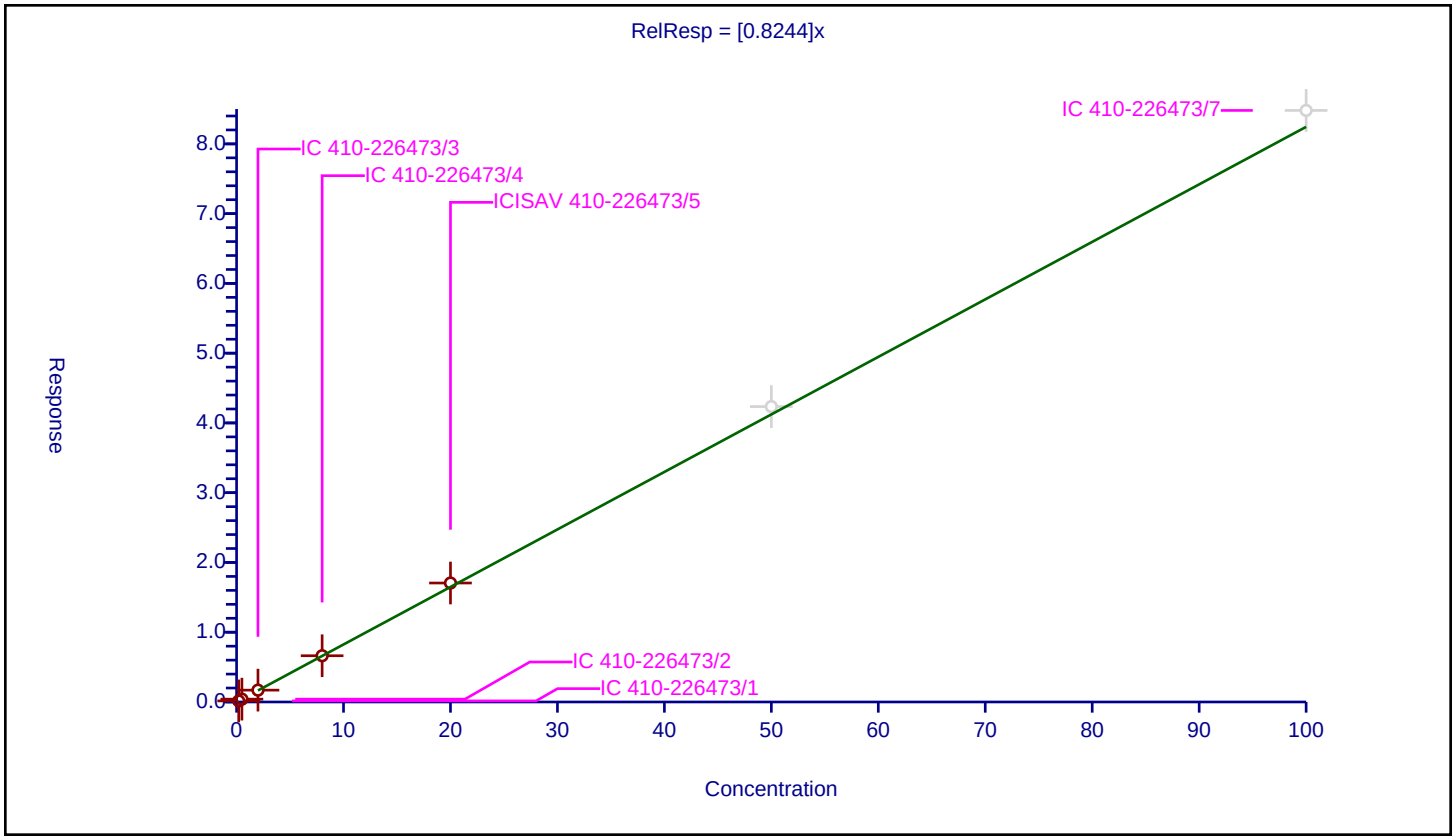
Curve Coefficients

Intercept:	0
Slope:	0.8244

Error Coefficients

Standard Error:	584000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.155521	10.0	600175.0	0.777607	Y
2	IC 410-226473/2	0.5	0.407097	10.0	625846.0	0.814194	Y
3	IC 410-226473/3	2.0	1.697335	10.0	665897.0	0.848667	Y
4	IC 410-226473/4	8.0	6.63147	10.0	662084.0	0.828934	Y
5	ICISAV 410-226473/5	20.0	17.054589	10.0	630934.0	0.852729	Y
6	IC 410-226473/6	50.0	42.343374	10.0	635767.0	0.846867	N
7	IC 410-226473/7	100.0	84.799086	10.0	574276.0	0.847991	N



Calibration / Perfluorodecanesulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

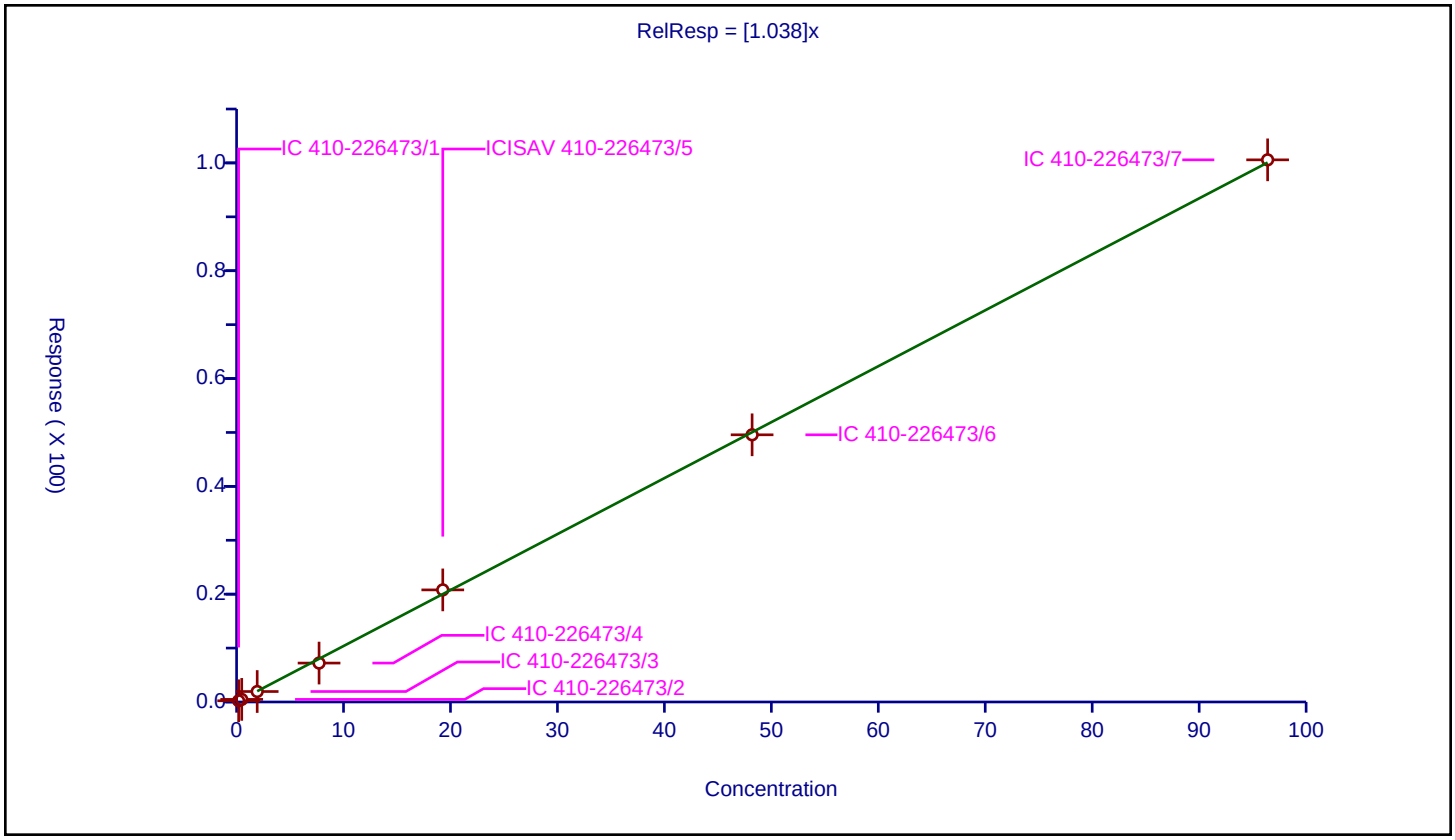
Curve Coefficients

Intercept:	0
Slope:	1.038

Error Coefficients

Standard Error:	4320000
Relative Standard Error:	7.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1928	0.226901	9.565	848072.0	1.176874	Y
2	IC 410-226473/2	0.482	0.480372	9.565	999904.0	0.996622	Y
3	IC 410-226473/3	1.928	1.940624	9.565	1016763.0	1.006548	Y
4	IC 410-226473/4	7.712	7.220803	9.565	1007256.0	0.936307	Y
5	ICISAV 410-226473/5	19.28	20.79186	9.565	956684.0	1.078416	Y
6	IC 410-226473/6	48.2	49.566502	9.565	934557.0	1.028351	Y
7	IC 410-226473/7	96.4	100.570631	9.565	868688.0	1.043264	Y



Calibration / Perfluoroundecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

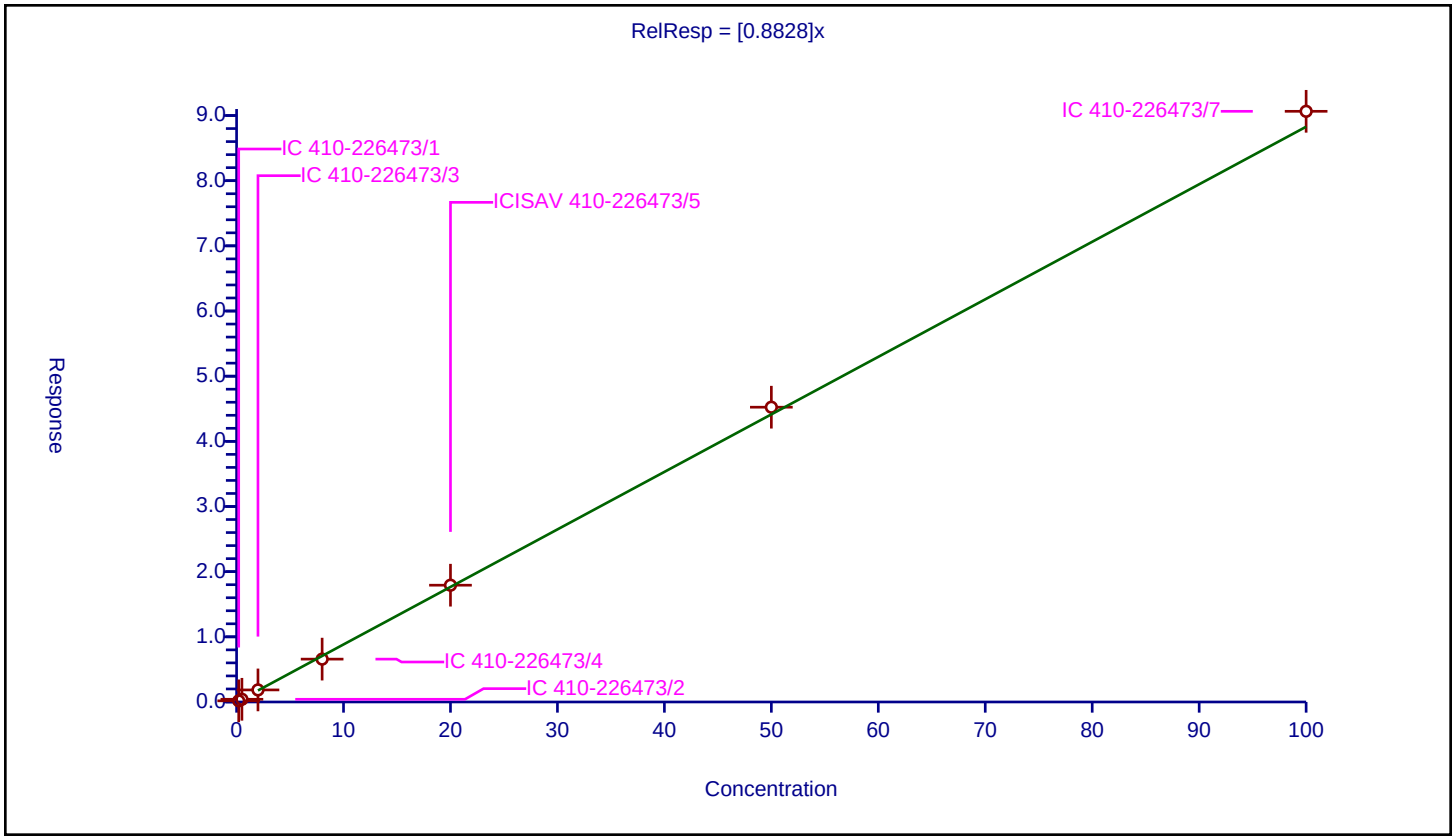
Curve Coefficients

Intercept:	0
Slope:	0.8828

Error Coefficients

Standard Error:	6280000
Relative Standard Error:	4.6
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.179081	10.0	1901258.0	0.895407	Y
2	IC 410-226473/2	0.5	0.413906	10.0	2043920.0	0.827811	Y
3	IC 410-226473/3	2.0	1.852602	10.0	1922140.0	0.926301	Y
4	IC 410-226473/4	8.0	6.58013	10.0	1870688.0	0.822516	Y
5	ICISAV 410-226473/5	20.0	17.922391	10.0	1768379.0	0.89612	Y
6	IC 410-226473/6	50.0	45.240608	10.0	1616465.0	0.904812	Y
7	IC 410-226473/7	100.0	90.647734	10.0	1444666.0	0.906477	Y



Calibration / N-ethylperfluorooctanesulfonamidoacetic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

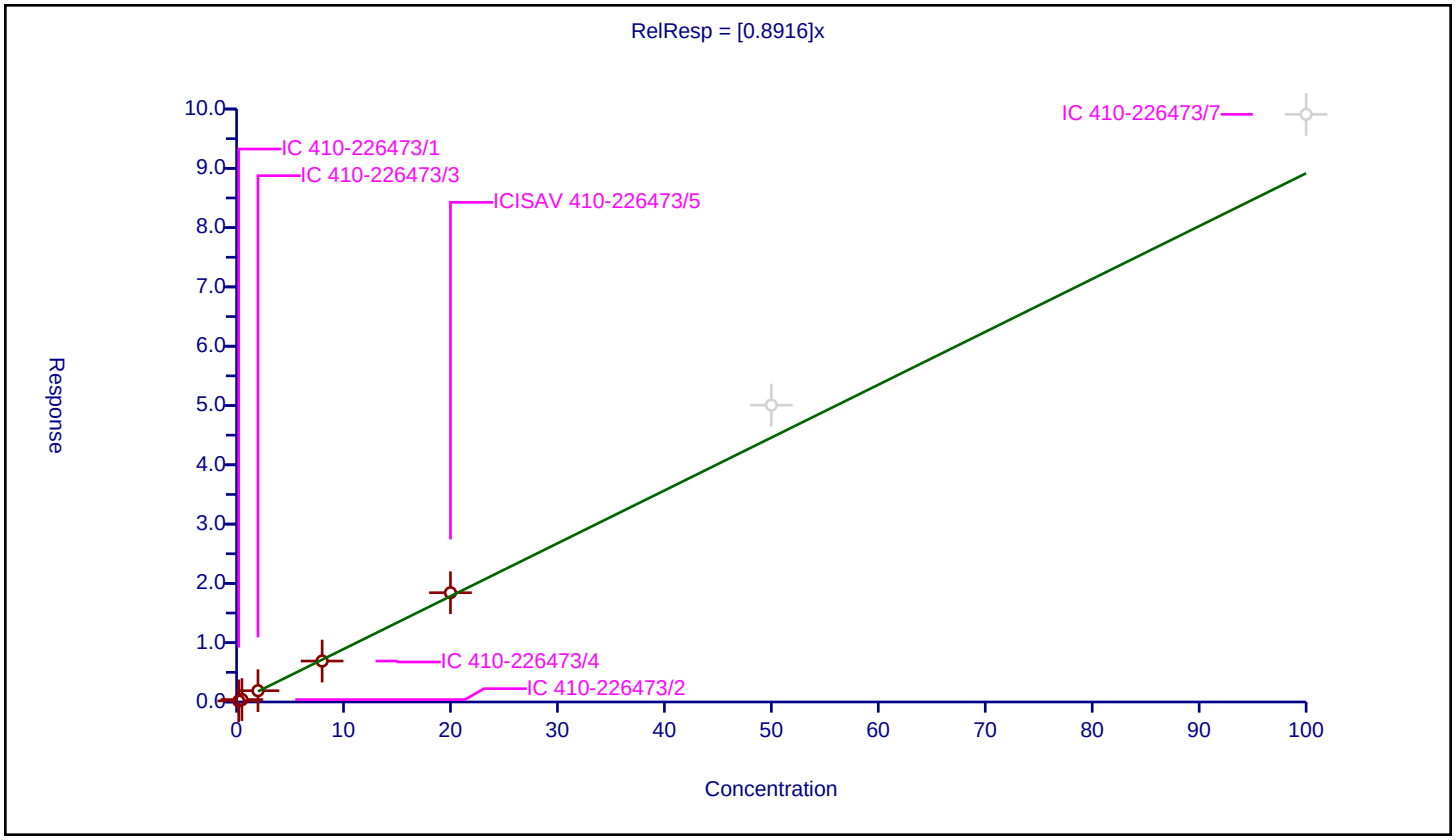
Curve Coefficients

Intercept:	0
Slope:	0.8916

Error Coefficients

Standard Error:	419000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.181247	10.0	436365.0	0.906237	Y
2	IC 410-226473/2	0.5	0.407928	10.0	469078.0	0.815856	Y
3	IC 410-226473/3	2.0	1.903803	10.0	446354.0	0.951901	Y
4	IC 410-226473/4	8.0	6.903199	10.0	458557.0	0.8629	Y
5	ICISAV 410-226473/5	20.0	18.42665	10.0	418273.0	0.921332	Y
6	IC 410-226473/6	50.0	50.064998	10.0	368937.0	1.0013	N
7	IC 410-226473/7	100.0	99.100489	10.0	359640.0	0.991005	N



Calibration / 10:2 FTUCA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

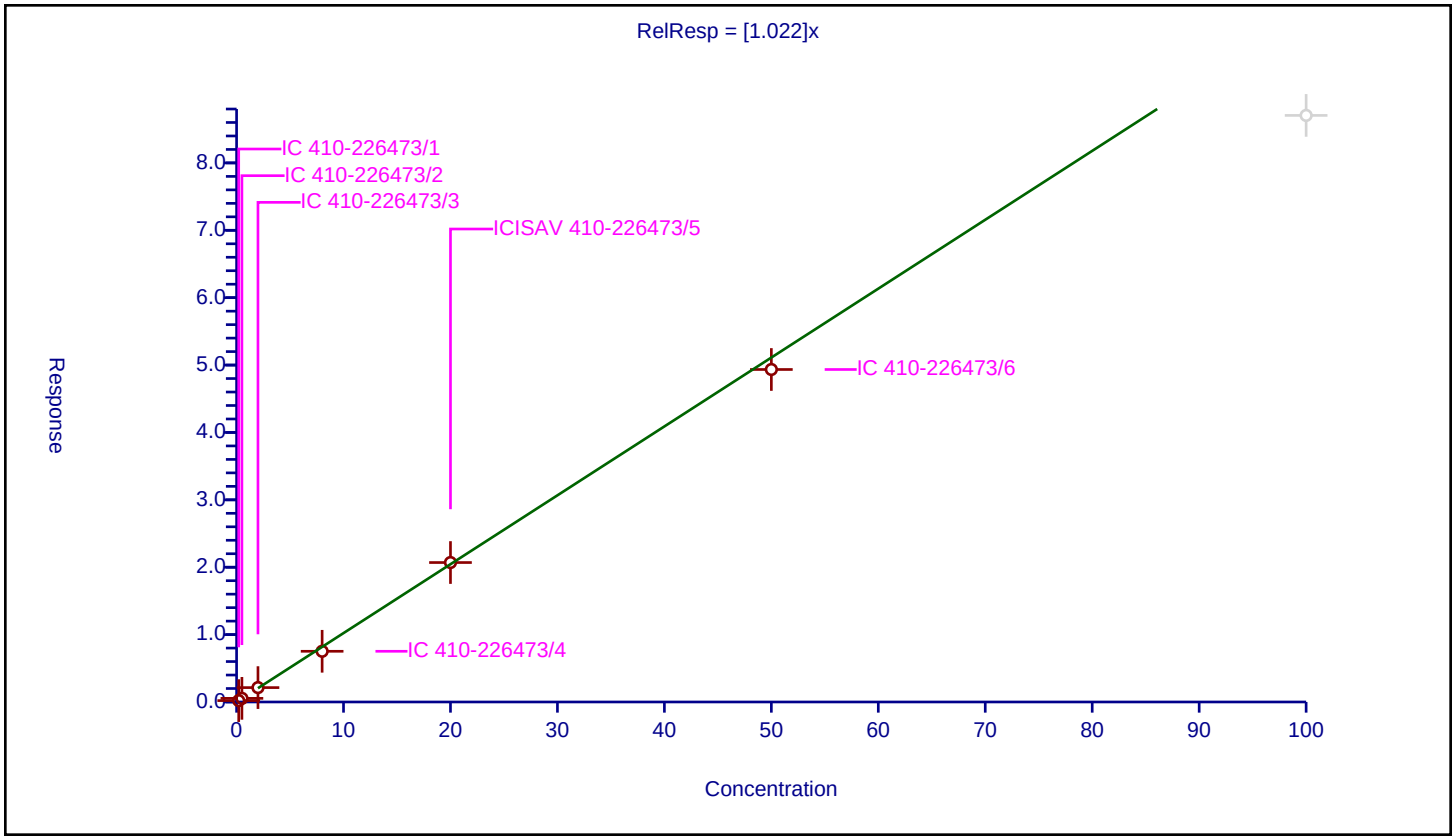
Curve Coefficients

Intercept:	0
Slope:	1.022

Error Coefficients

Standard Error:	3590000
Relative Standard Error:	5.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.205323	10.0	1481617.0	1.026615	Y
2	IC 410-226473/2	0.5	0.539088	10.0	1594897.0	1.078176	Y
3	IC 410-226473/3	2.0	2.134032	10.0	1681798.0	1.067016	Y
4	IC 410-226473/4	8.0	7.524301	10.0	1701766.0	0.940538	Y
5	ICISAV 410-226473/5	20.0	20.695373	10.0	1473223.0	1.034769	Y
6	IC 410-226473/6	50.0	49.342498	10.0	1482276.0	0.98685	Y
7	IC 410-226473/7	100.0	87.048529	10.0	1254002.0	0.870485	N



Calibration / 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

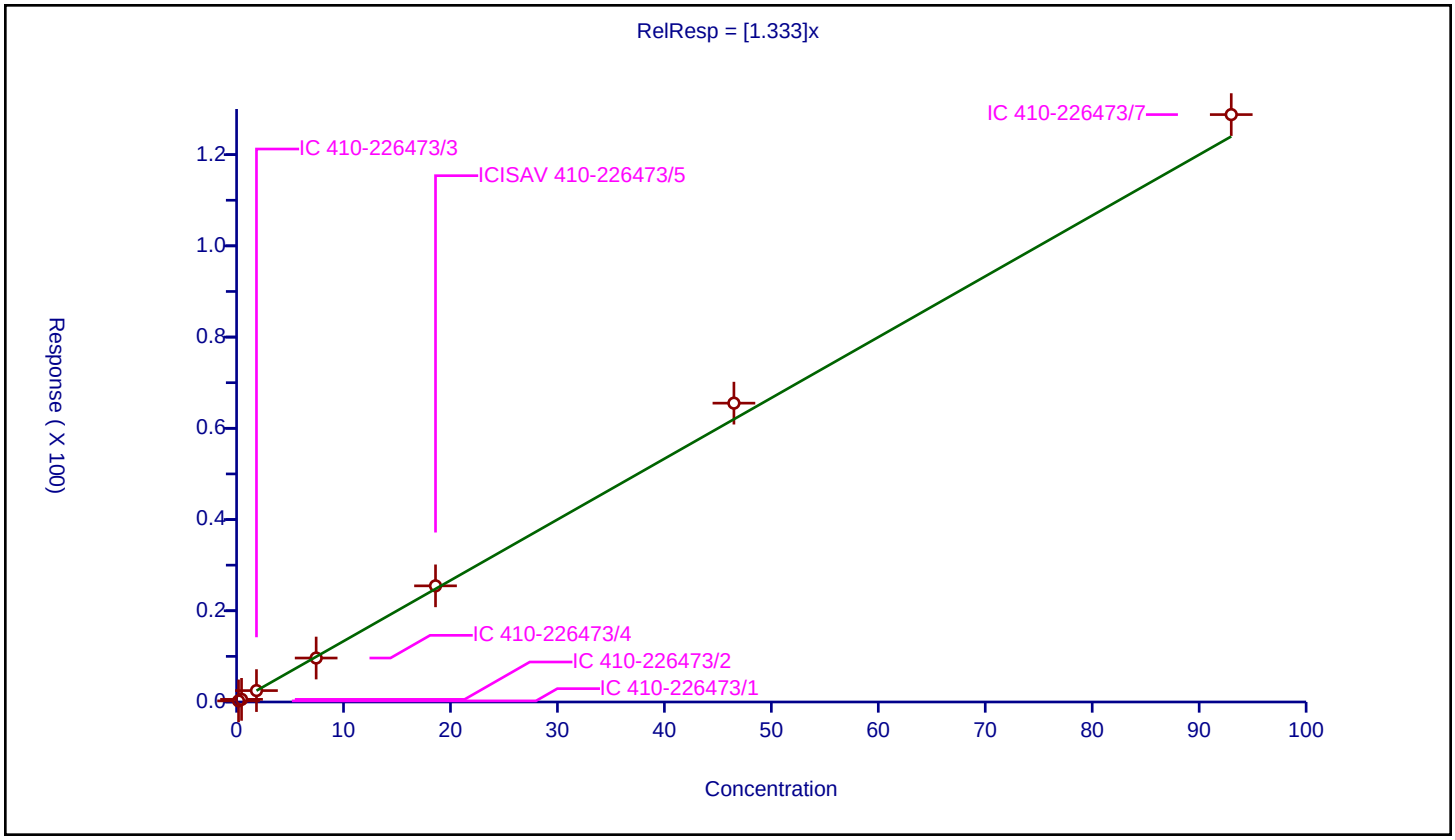
Curve Coefficients

Intercept:	0
Slope:	1.333

Error Coefficients

Standard Error:	5560000
Relative Standard Error:	4.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.186	0.241417	9.565	848072.0	1.29794	Y
2	IC 410-226473/2	0.465	0.573678	9.565	999904.0	1.233715	Y
3	IC 410-226473/3	1.86	2.496784	9.565	1016763.0	1.342357	Y
4	IC 410-226473/4	7.44	9.635822	9.565	1007256.0	1.295137	Y
5	ICISAV 410-226473/5	18.6	25.465931	9.565	956684.0	1.369136	Y
6	IC 410-226473/6	46.5	65.518137	9.565	934557.0	1.408992	Y
7	IC 410-226473/7	93.0	128.780889	9.565	868688.0	1.384741	Y



Calibration / 10:2 FTCA

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

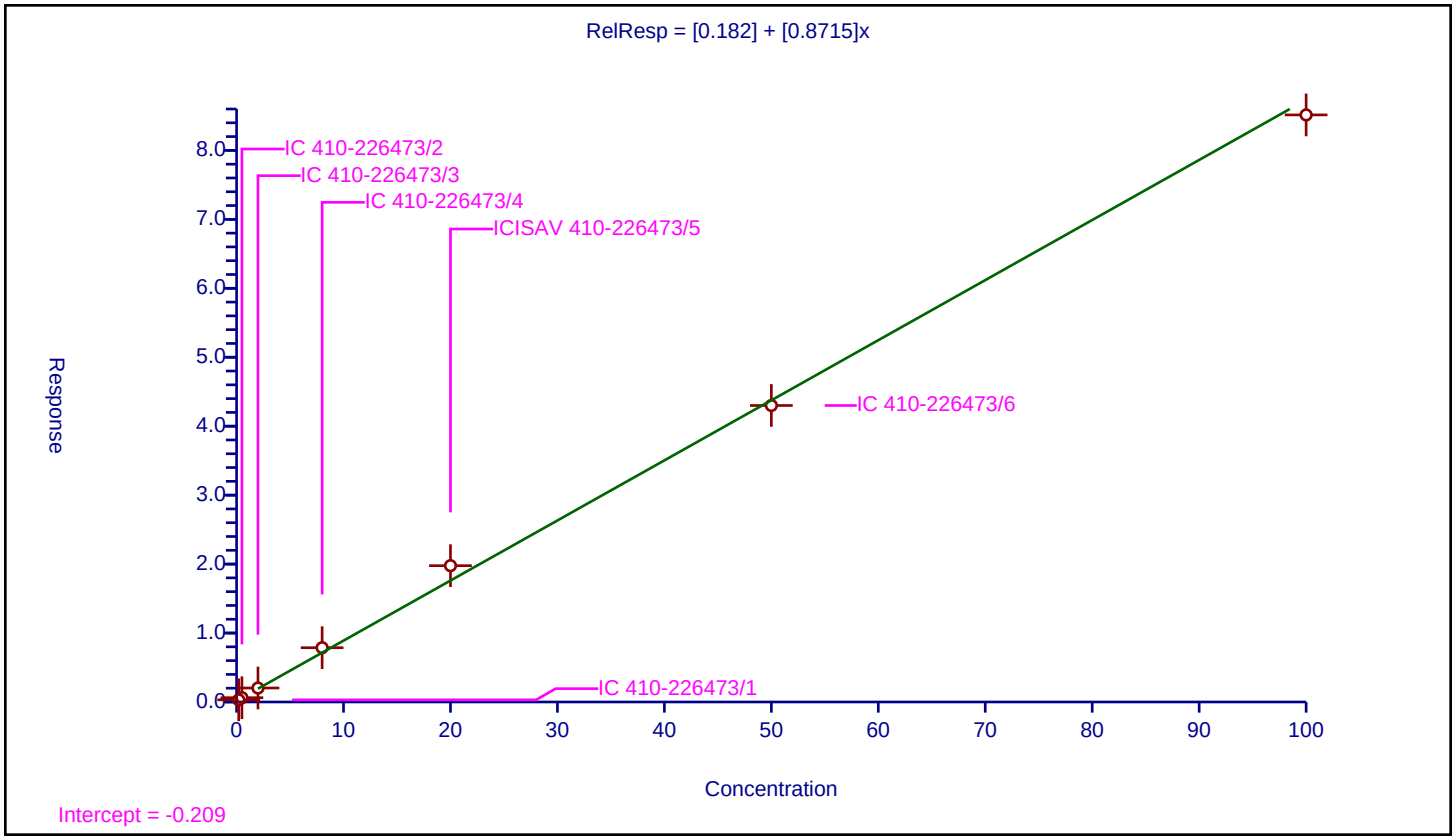
Curve Coefficients

Intercept:	0.182
Slope:	0.8715

Error Coefficients

Standard Error:	303000
Relative Standard Error:	13.7
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.312509	10.0	67230.0	1.562546	Y
2	IC 410-226473/2	0.5	0.621459	10.0	81904.0	1.242919	Y
3	IC 410-226473/3	2.0	2.026561	10.0	84182.0	1.013281	Y
4	IC 410-226473/4	8.0	7.872129	10.0	83365.0	0.984016	Y
5	ICISAV 410-226473/5	20.0	19.768224	10.0	76108.0	0.988411	Y
6	IC 410-226473/6	50.0	43.000106	10.0	75674.0	0.860002	Y
7	IC 410-226473/7	100.0	85.145189	10.0	67016.0	0.851452	Y



Calibration / Perfluorododecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

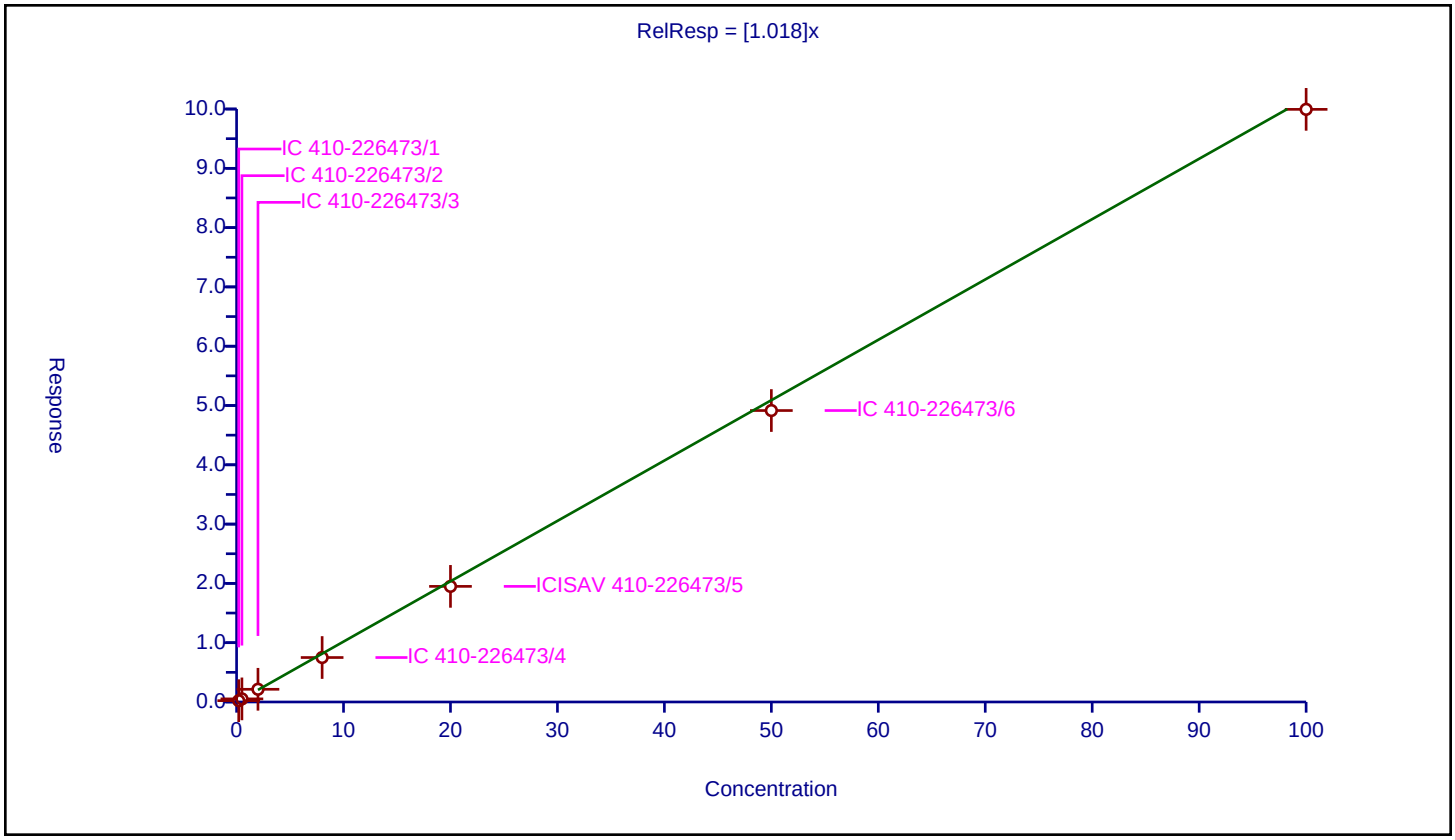
Curve Coefficients

Intercept:	0
Slope:	1.018

Error Coefficients

Standard Error:	5640000
Relative Standard Error:	6.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.222711	10.0	1253865.0	1.113557	Y
2	IC 410-226473/2	0.5	0.522184	10.0	1346766.0	1.044369	Y
3	IC 410-226473/3	2.0	2.144871	10.0	1391002.0	1.072436	Y
4	IC 410-226473/4	8.0	7.498352	10.0	1474572.0	0.937294	Y
5	ICISAV 410-226473/5	20.0	19.499058	10.0	1363171.0	0.974953	Y
6	IC 410-226473/6	50.0	49.149152	10.0	1271625.0	0.982983	Y
7	IC 410-226473/7	100.0	99.93946	10.0	1198210.0	0.999395	Y



Calibration / 2-(N-methylperfluoro-1-octanesulfonamido) ethanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

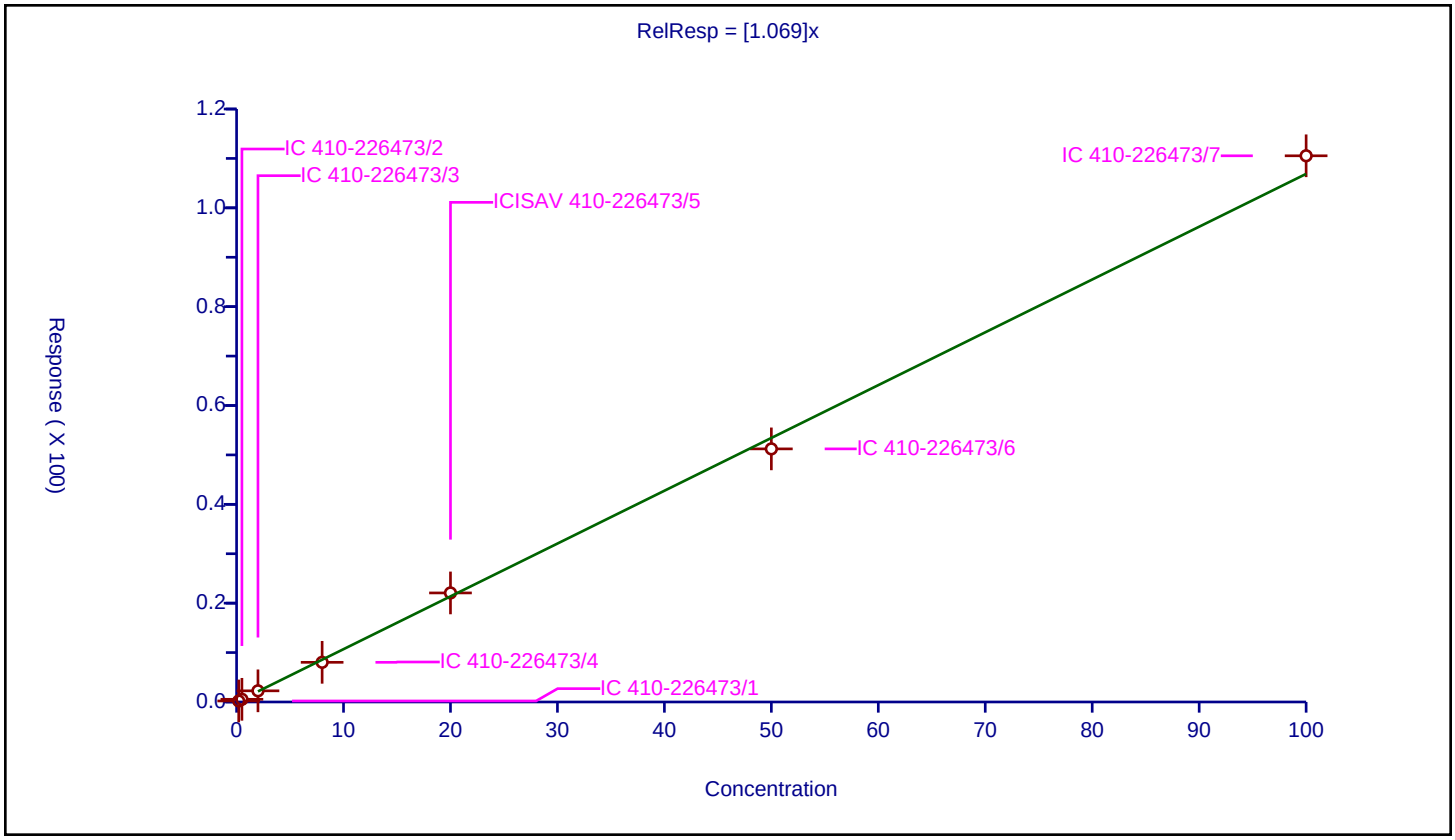
Curve Coefficients

Intercept:	0
Slope:	1.069

Error Coefficients

Standard Error:	1360000
Relative Standard Error:	4.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.205405	10.0	266352.0	1.027024	Y
2	IC 410-226473/2	0.5	0.543549	10.0	278264.0	1.087097	Y
3	IC 410-226473/3	2.0	2.259994	10.0	288660.0	1.129997	Y
4	IC 410-226473/4	8.0	8.02663	10.0	285988.0	1.003329	Y
5	ICISAV 410-226473/5	20.0	22.071503	10.0	267540.0	1.103575	Y
6	IC 410-226473/6	50.0	51.218796	10.0	276568.0	1.024376	Y
7	IC 410-226473/7	100.0	110.536513	10.0	267319.0	1.105365	Y



Calibration / 1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

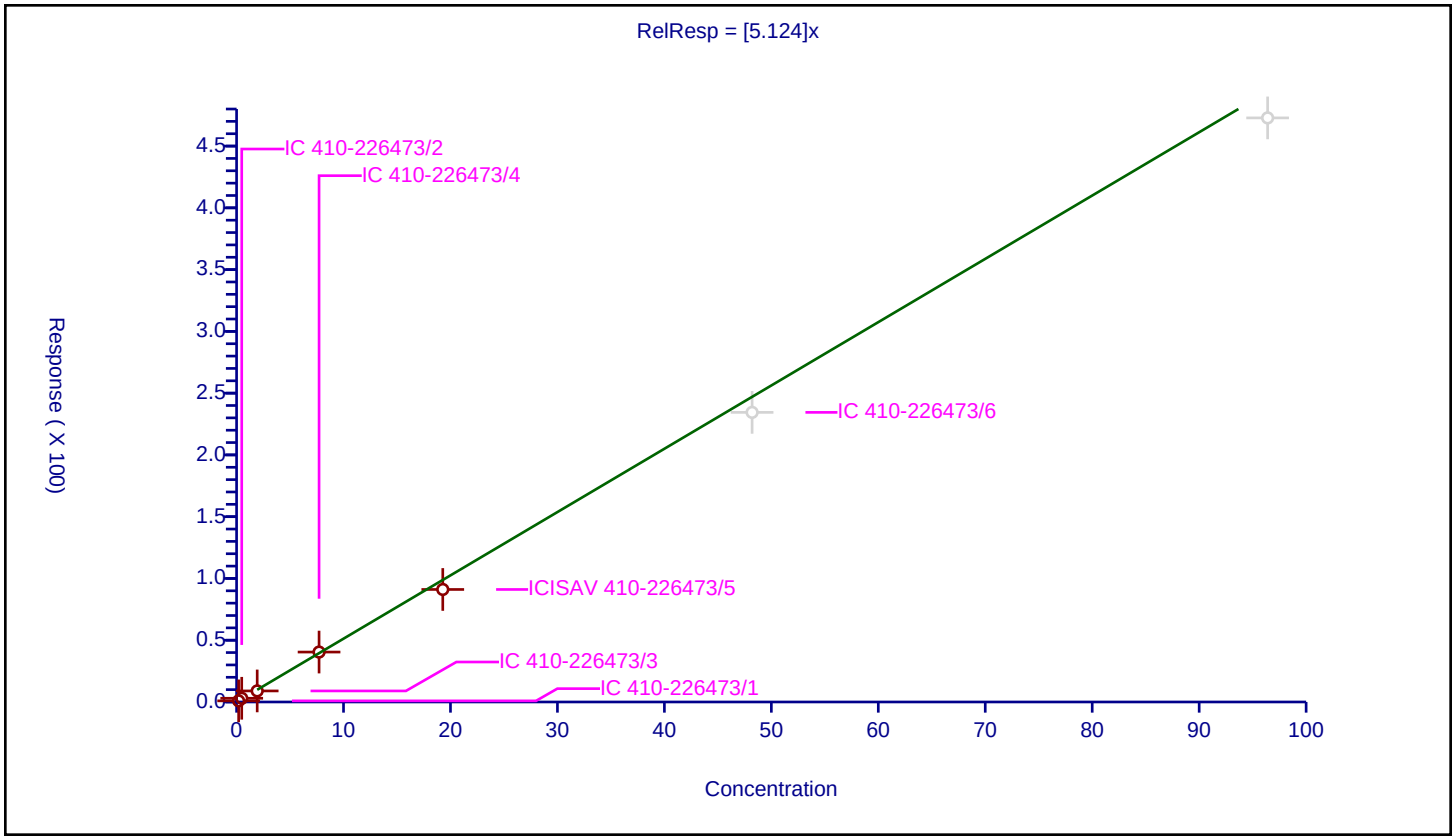
Curve Coefficients

Intercept:	0
Slope:	5.124

Error Coefficients

Standard Error:	253000
Relative Standard Error:	13.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1928	0.917629	9.58	48243.0	4.759487	Y
2	IC 410-226473/2	0.482	3.013855	9.58	48573.0	6.252811	Y
3	IC 410-226473/3	1.928	8.95554	9.58	54799.0	4.64499	Y
4	IC 410-226473/4	7.712	40.413	9.58	46298.0	5.240275	Y
5	ICISAV 410-226473/5	19.28	91.08297	9.58	48773.0	4.72422	Y
6	IC 410-226473/6	48.2	234.435099	9.58	44746.0	4.863799	N
7	IC 410-226473/7	96.4	472.801664	9.58	39338.0	4.904582	N



Calibration / NMeFOSA

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

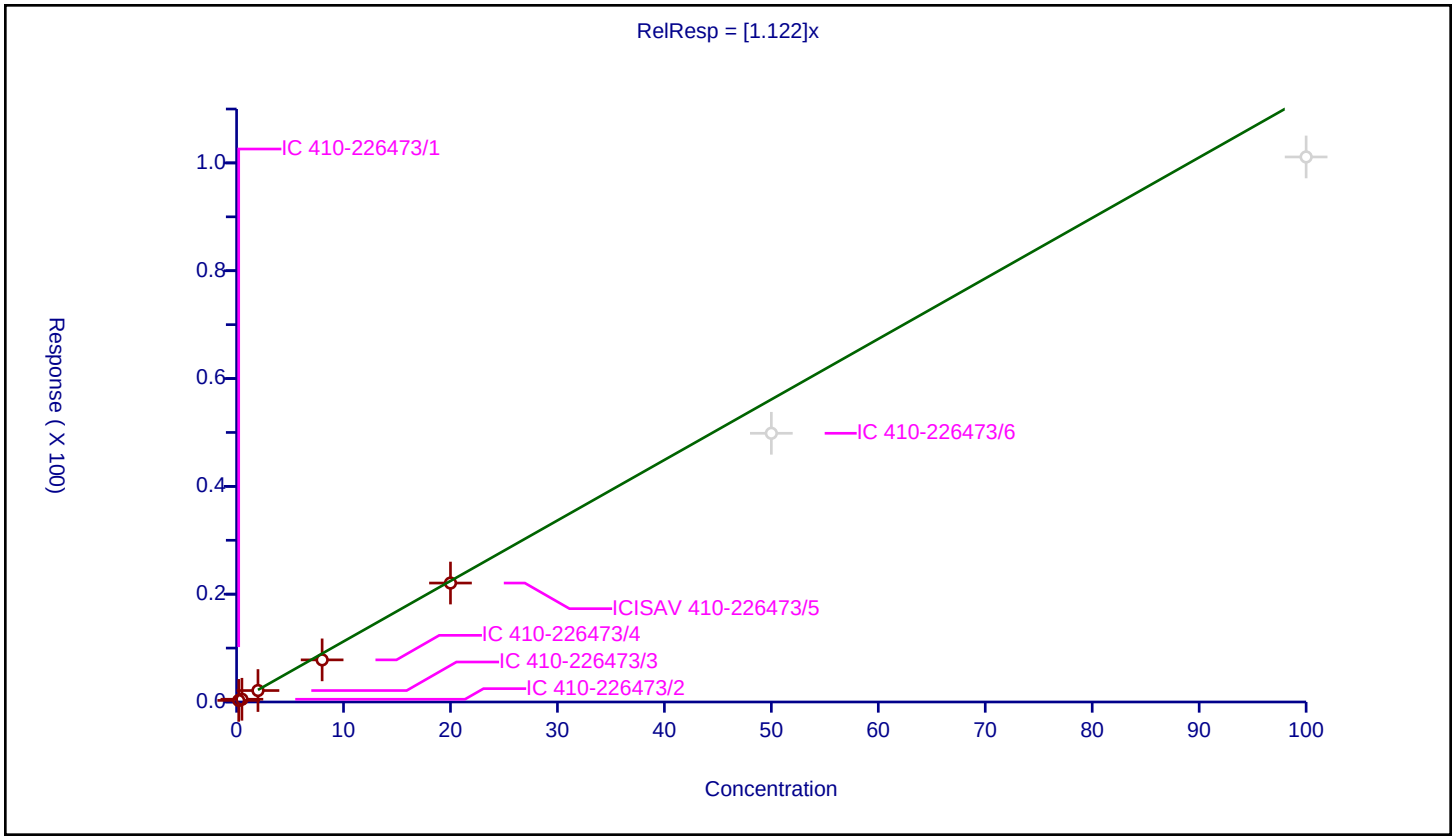
Curve Coefficients

Intercept:	0
Slope:	1.122

Error Coefficients

Standard Error:	208000
Relative Standard Error:	17.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.950

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.291825	10.0	170205.0	1.459123	Y
2	IC 410-226473/2	0.5	0.505351	10.0	184624.0	1.010703	Y
3	IC 410-226473/3	2.0	2.124495	10.0	191975.0	1.062248	Y
4	IC 410-226473/4	8.0	7.815201	10.0	188356.0	0.9769	Y
5	ICISAV 410-226473/5	20.0	22.064841	10.0	175505.0	1.103242	Y
6	IC 410-226473/6	50.0	49.848098	10.0	185843.0	0.996962	N
7	IC 410-226473/7	100.0	101.106467	10.0	183991.0	1.011065	N



Calibration / 2-(N-ethylperfluoro-1-octanesulfonamido) ethanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

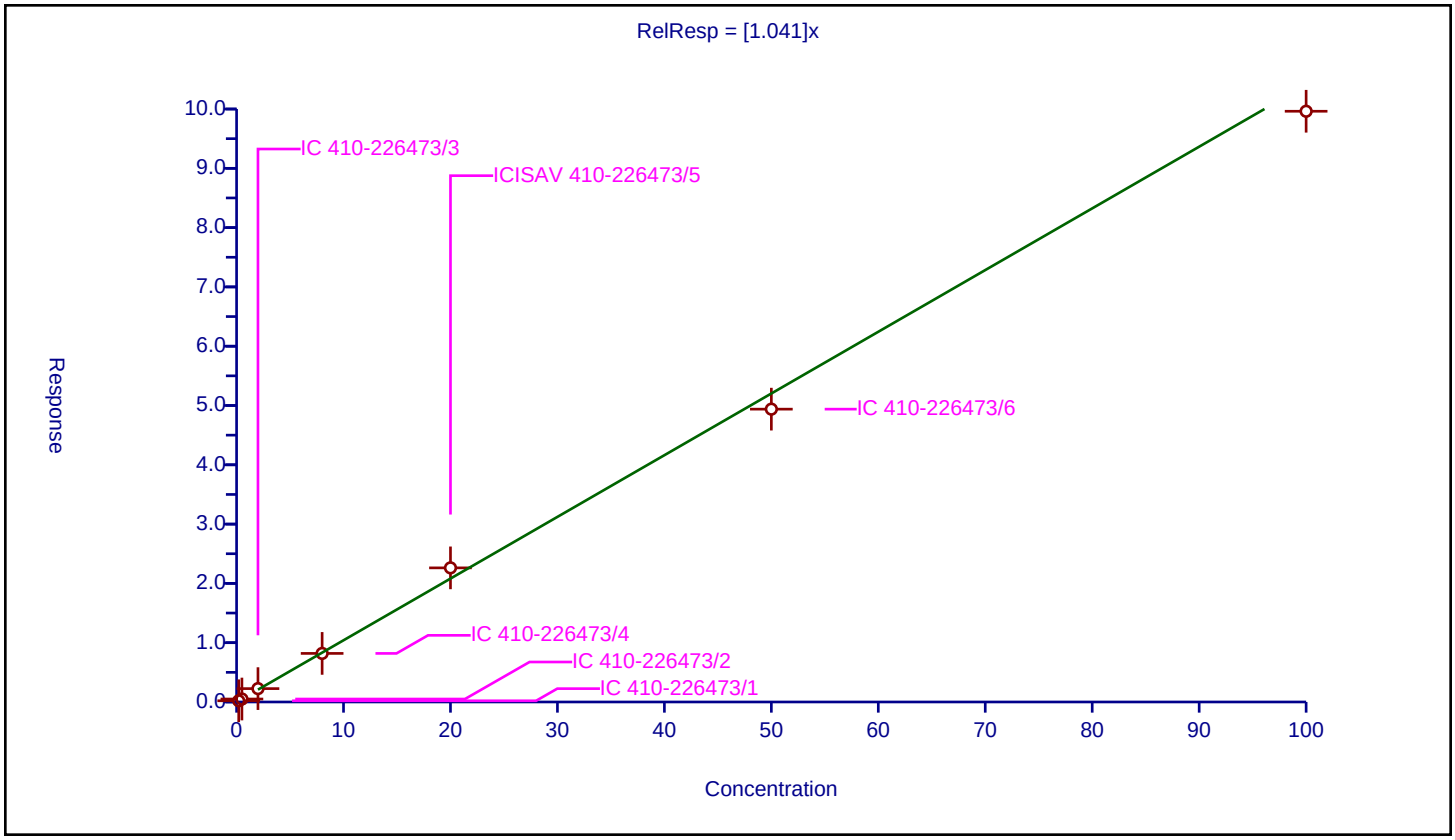
Curve Coefficients

Intercept:	0
Slope:	1.041

Error Coefficients

Standard Error:	1480000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.202892	10.0	299568.0	1.014461	Y
2	IC 410-226473/2	0.5	0.500847	10.0	323332.0	1.001695	Y
3	IC 410-226473/3	2.0	2.257391	10.0	340043.0	1.128695	Y
4	IC 410-226473/4	8.0	8.190417	10.0	312398.0	1.023802	Y
5	ICISAV 410-226473/5	20.0	22.619532	10.0	290487.0	1.130977	Y
6	IC 410-226473/6	50.0	49.384886	10.0	321176.0	0.987698	Y
7	IC 410-226473/7	100.0	99.624344	10.0	319202.0	0.996243	Y



Calibration / Perfluorododecanesulfonic acid (PFDoS)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

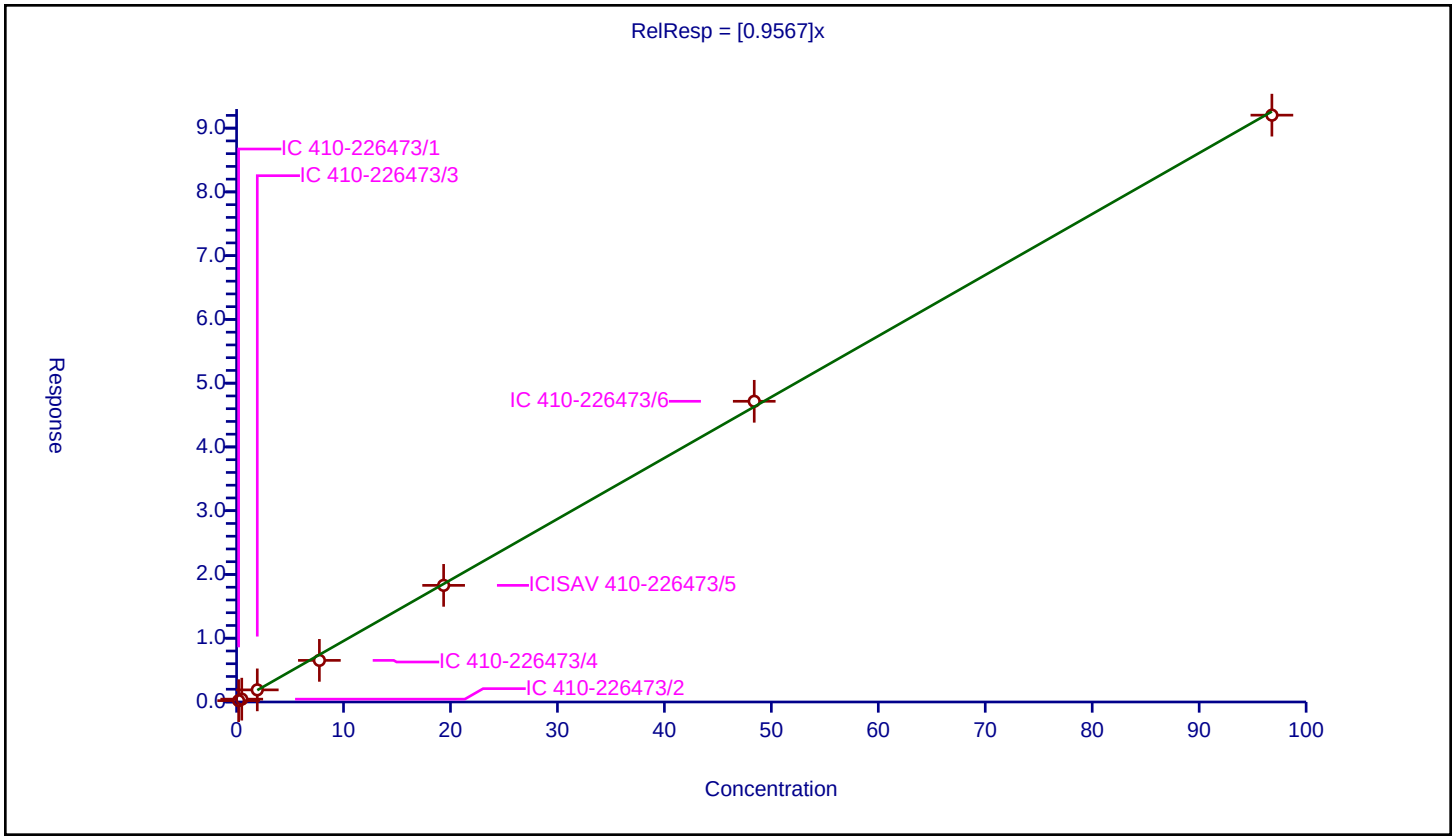
Curve Coefficients

Intercept:	0
Slope:	0.9567

Error Coefficients

Standard Error:	3980000
Relative Standard Error:	7.5
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.1936	0.20916	9.565	848072.0	1.080373	Y
2	IC 410-226473/2	0.484	0.445982	9.565	999904.0	0.921451	Y
3	IC 410-226473/3	1.936	1.901122	9.565	1016763.0	0.981985	Y
4	IC 410-226473/4	7.744	6.526401	9.565	1007256.0	0.842769	Y
5	ICISAV 410-226473/5	19.36	18.291761	9.565	956684.0	0.944822	Y
6	IC 410-226473/6	48.4	47.161284	9.565	934557.0	0.974407	Y
7	IC 410-226473/7	96.8	92.036776	9.565	868688.0	0.950793	Y



Calibration / N-ethylperfluoro-1-octanesulfonamide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

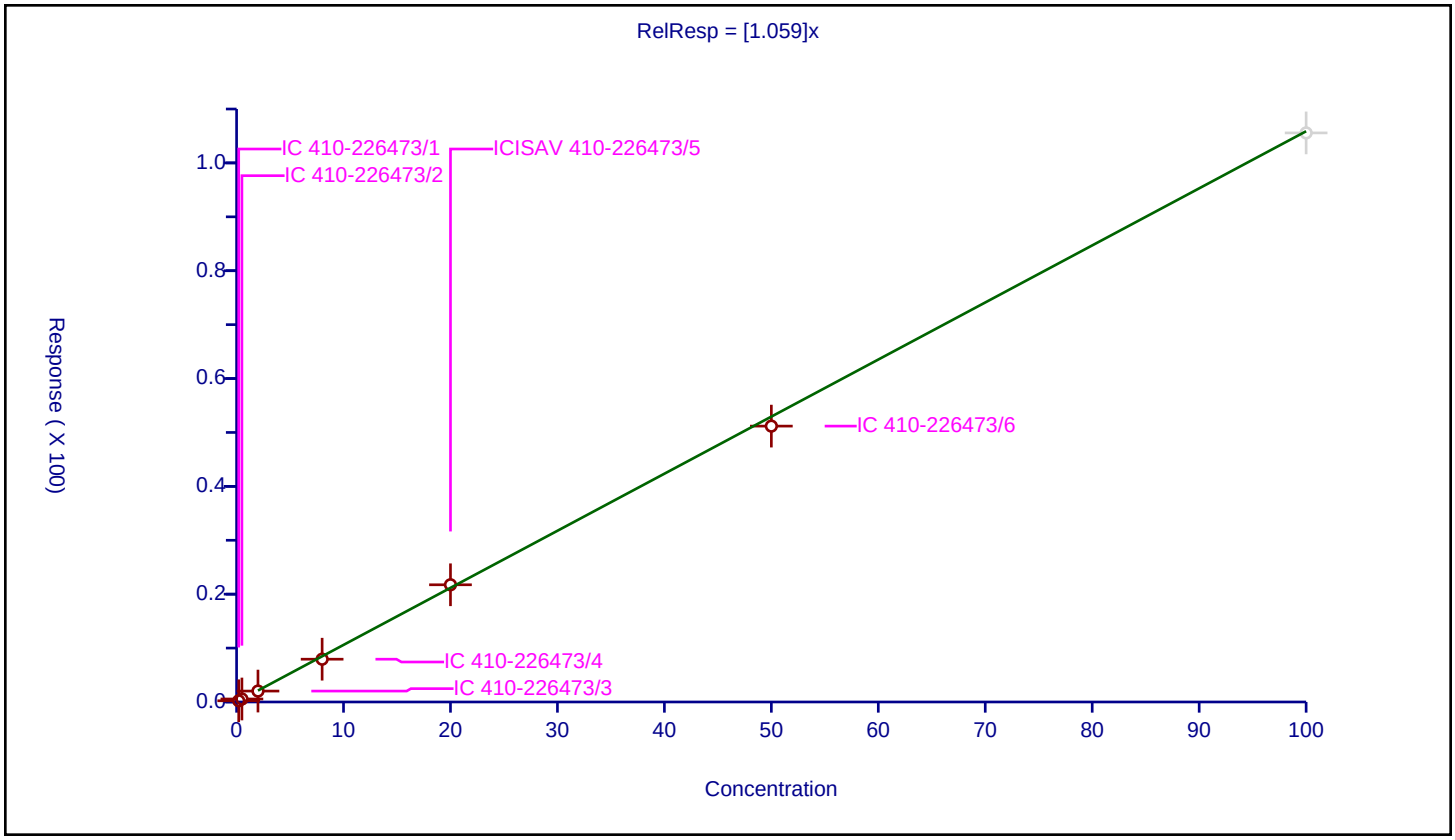
Curve Coefficients

Intercept:	0
Slope:	1.059

Error Coefficients

Standard Error:	419000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.224192	10.0	163387.0	1.120958	Y
2	IC 410-226473/2	0.5	0.557219	10.0	176358.0	1.114438	Y
3	IC 410-226473/3	2.0	2.027401	10.0	185252.0	1.0137	Y
4	IC 410-226473/4	8.0	7.939521	10.0	175731.0	0.99244	Y
5	ICISAV 410-226473/5	20.0	21.744884	10.0	165352.0	1.087244	Y
6	IC 410-226473/6	50.0	51.178414	10.0	166758.0	1.023568	Y
7	IC 410-226473/7	100.0	105.566703	10.0	162863.0	1.055667	N



Calibration / Perfluorotridecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

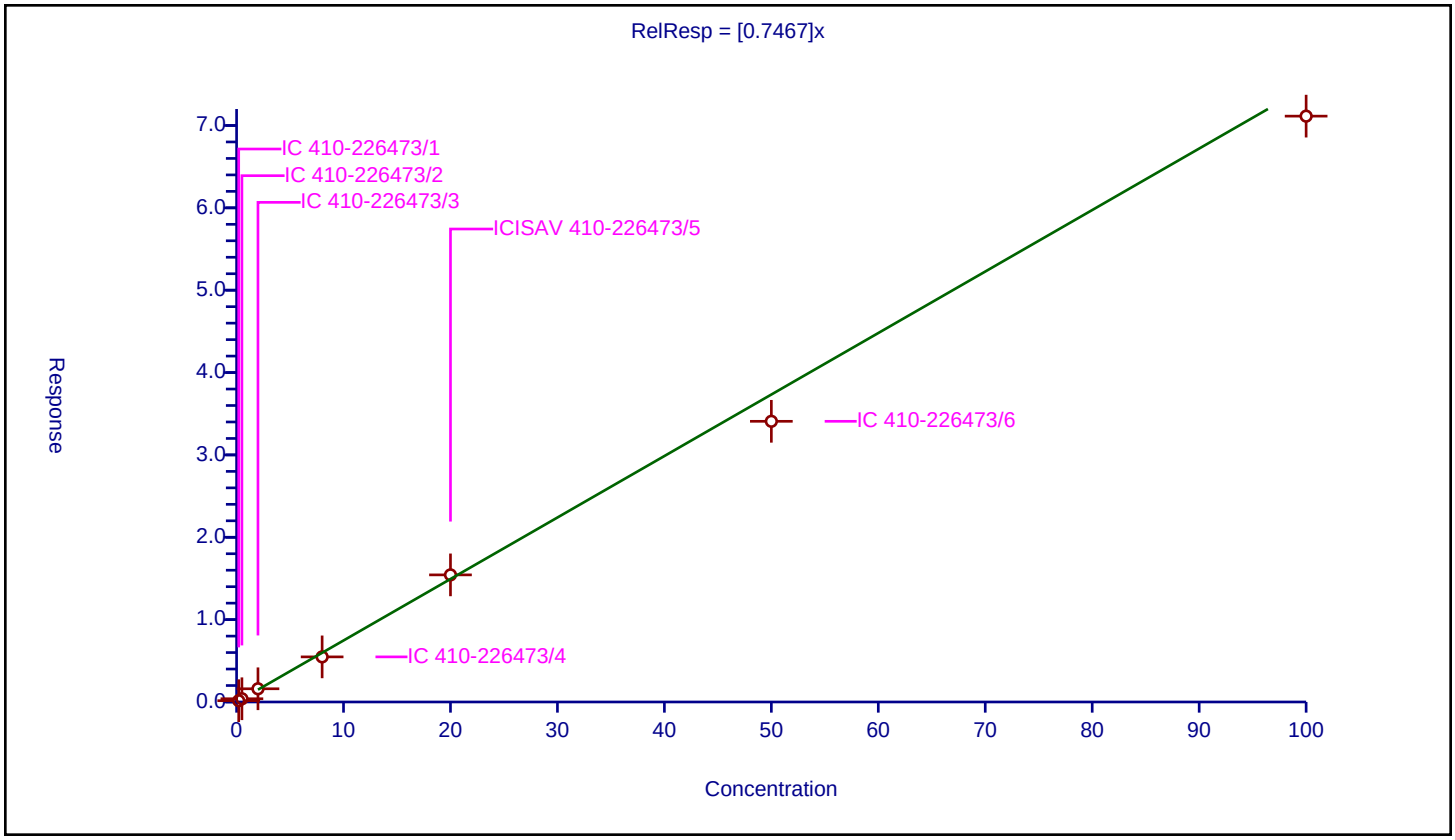
Curve Coefficients

Intercept:	0
Slope:	0.7467

Error Coefficients

Standard Error:	4010000
Relative Standard Error:	7.0
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.158446	10.0	1253865.0	0.79223	Y
2	IC 410-226473/2	0.5	0.391954	10.0	1346766.0	0.783908	Y
3	IC 410-226473/3	2.0	1.602787	10.0	1391002.0	0.801394	Y
4	IC 410-226473/4	8.0	5.475555	10.0	1474572.0	0.684444	Y
5	ICISAV 410-226473/5	20.0	15.43361	10.0	1363171.0	0.771681	Y
6	IC 410-226473/6	50.0	34.080944	10.0	1271625.0	0.681619	Y
7	IC 410-226473/7	100.0	71.135277	10.0	1198210.0	0.711353	Y



Calibration / Perfluorotetradecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

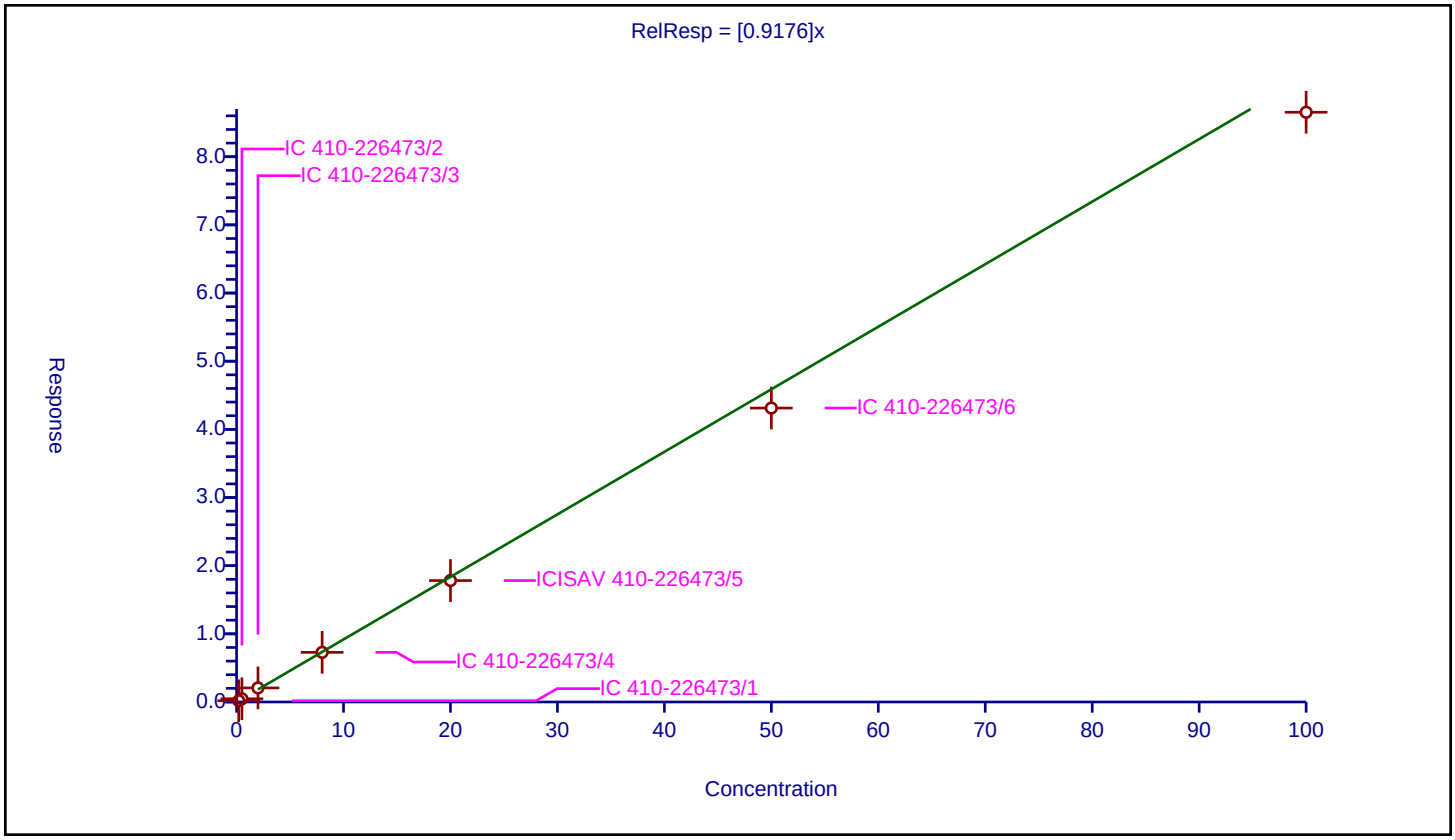
Curve Coefficients

Intercept:	0
Slope:	0.9176

Error Coefficients

Standard Error:	4420000
Relative Standard Error:	6.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.183147	10.0	1087598.0	0.915734	Y
2	IC 410-226473/2	0.5	0.472971	10.0	1065880.0	0.945941	Y
3	IC 410-226473/3	2.0	2.064337	10.0	1115535.0	1.032168	Y
4	IC 410-226473/4	8.0	7.284833	10.0	1135827.0	0.910604	Y
5	ICISAV 410-226473/5	20.0	17.816112	10.0	1169950.0	0.890806	Y
6	IC 410-226473/6	50.0	43.123752	10.0	1179607.0	0.862475	Y
7	IC 410-226473/7	100.0	86.528353	10.0	1074706.0	0.865284	Y



Calibration / Perfluorohexadecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

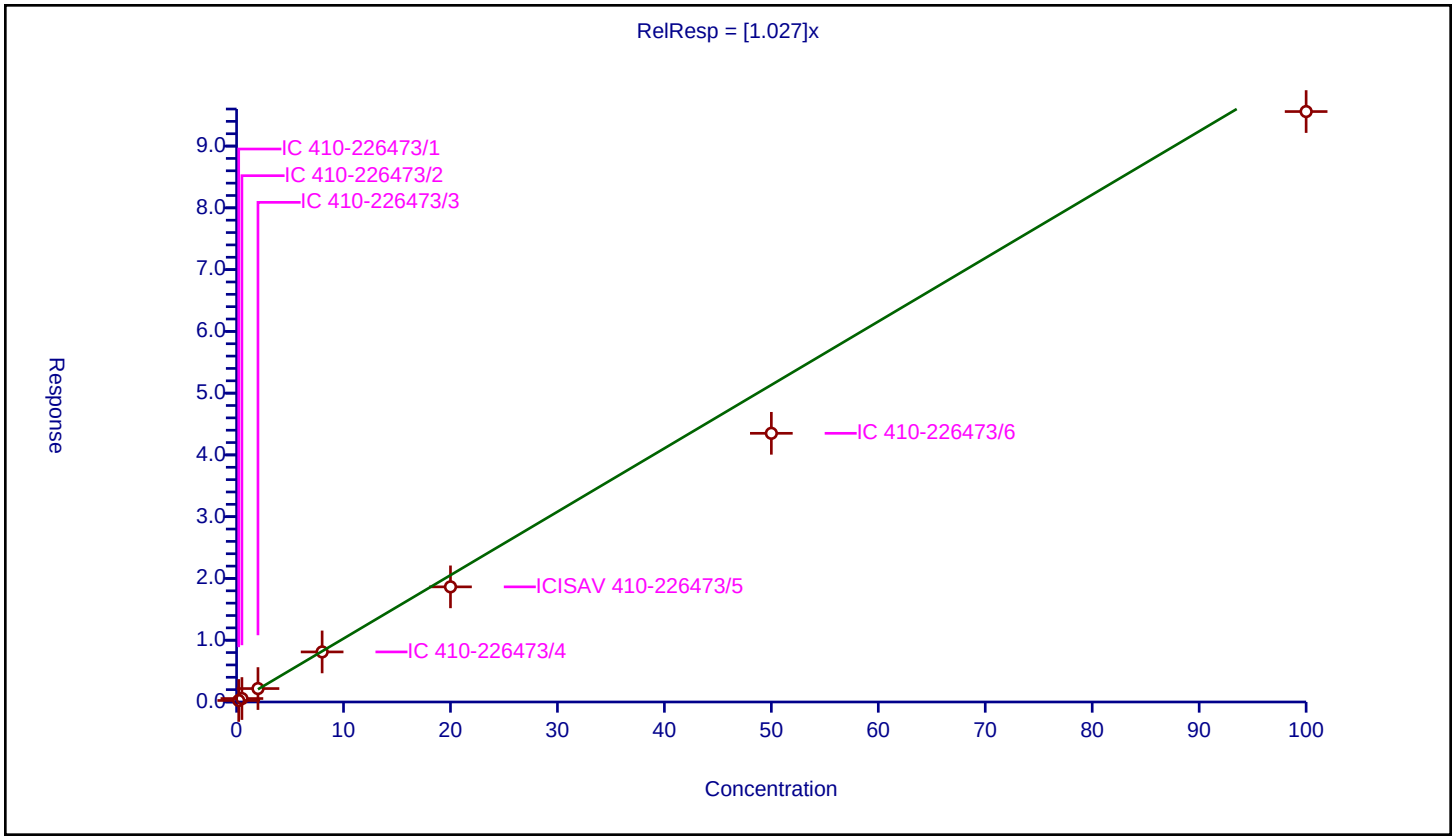
Curve Coefficients

Intercept:	0
Slope:	1.027

Error Coefficients

Standard Error:	4790000
Relative Standard Error:	11.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.242691	10.0	1087598.0	1.213454	Y
2	IC 410-226473/2	0.5	0.557886	10.0	1065880.0	1.115773	Y
3	IC 410-226473/3	2.0	2.171882	10.0	1115535.0	1.085941	Y
4	IC 410-226473/4	8.0	8.106041	10.0	1135827.0	1.013255	Y
5	ICISAV 410-226473/5	20.0	18.640104	10.0	1169950.0	0.932005	Y
6	IC 410-226473/6	50.0	43.497343	10.0	1179607.0	0.869947	Y
7	IC 410-226473/7	100.0	95.590236	10.0	1074706.0	0.955902	Y



Calibration / Perfluorooctadecanoic acid

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	IsoDil
Response Base:	AREA
RF Rounding:	0

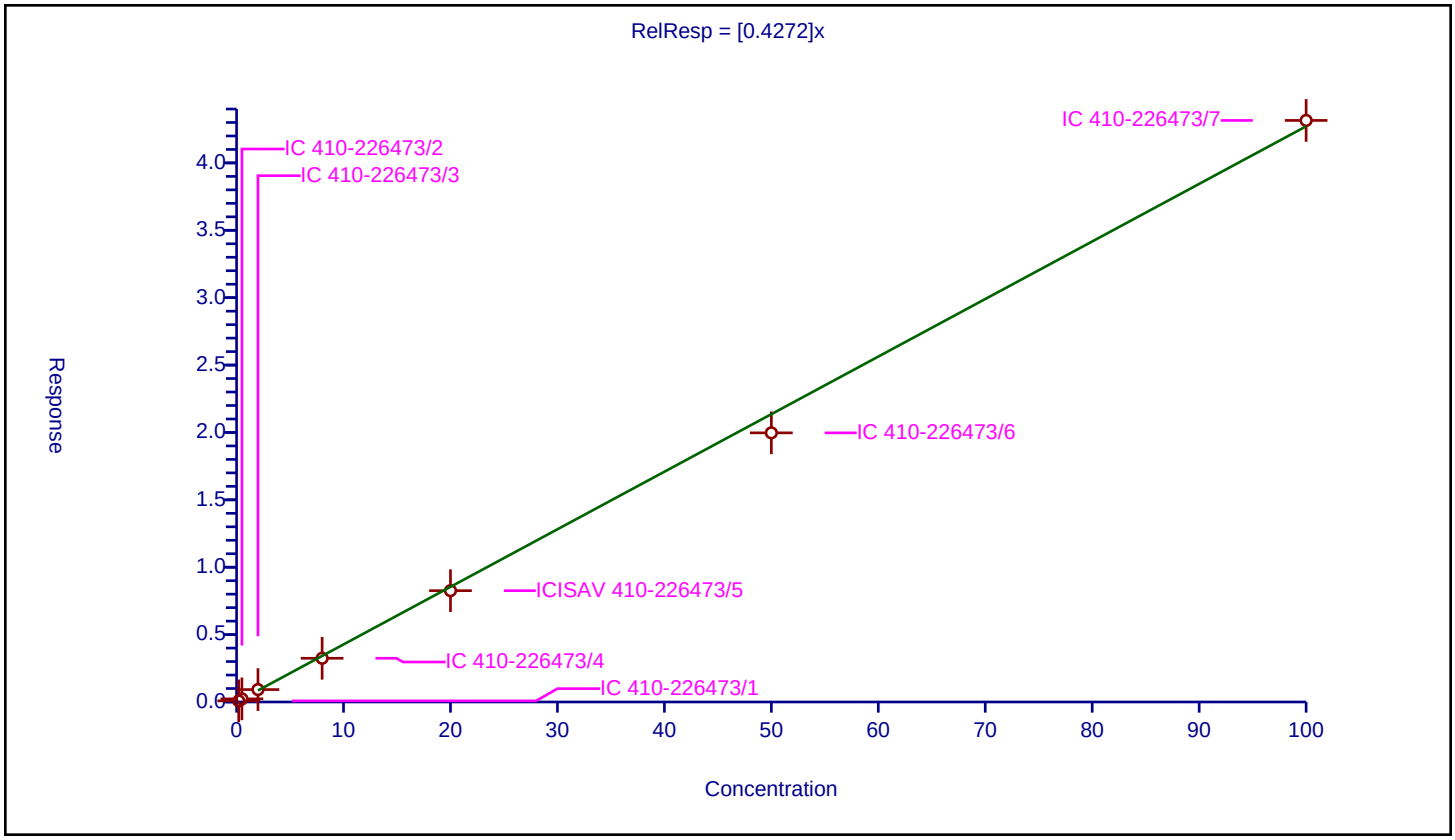
Curve Coefficients

Intercept:	0
Slope:	0.4272

Error Coefficients

Standard Error:	2170000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-226473/1	0.2	0.08265	10.0	1087598.0	0.41325	Y
2	IC 410-226473/2	0.5	0.233253	10.0	1065880.0	0.466507	Y
3	IC 410-226473/3	2.0	0.921764	10.0	1115535.0	0.460882	Y
4	IC 410-226473/4	8.0	3.243689	10.0	1135827.0	0.405461	Y
5	ICISAV 410-226473/5	20.0	8.261139	10.0	1169950.0	0.413057	Y
6	IC 410-226473/6	50.0	19.970338	10.0	1179607.0	0.399407	Y
7	IC 410-226473/7	100.0	43.152881	10.0	1074706.0	0.431529	Y



FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: ICV 410-228775/9 Calibration Date: 03/01/2022 22:44

Instrument ID: 30728 Calib Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 03/01/2022 22:21

Lab File ID: 22MAR01MCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Sodium trifluoromethanesulfonate	AveID	0.2668	0.2554		1.88	1.96	-4.3	30.0
MTP	AveID	0.0968	0.0930		1.92	2.00	-3.9	30.0
PPF Acid	AveID	0.4686	0.4539		1.94	2.00	-3.1	30.0
PFMOAA	AveID	0.4002	0.3857		1.93	2.00	-3.6	30.0
R-EVE	AveID	0.0911	0.0913		2.01	2.00	0.3	30.0
R-PSDA	AveID	0.0405	0.0381		1.88	2.00	-6.0	30.0
Hydrolyzed PSDA	AveID	0.1544	0.1538		1.99	2.00	-0.4	30.0
Perfluorobutanoic acid	AveID	0.8610	0.8436		1.96	2.00	-2.0	30.0
PMPA	AveID	0.5107	0.5048		1.98	2.00	-1.2	30.0
Perfluoropropanesulfonic acid	AveID	0.2297	0.2370		1.89	1.83	3.2	30.0
NVHOS	AveID	0.2689	0.2475		1.84	2.00	-8.0	30.0
PFECA F	AveID	0.9487	0.9698		2.04	2.00	2.2	30.0
PFO2HxA	AveID	0.3764	0.3638		1.93	2.00	-3.3	30.0
3:3 FTCA	AveID	0.0790	0.0780		1.97	2.00	-1.3	30.0
Perfluoropentanoic acid	AveID	1.161	1.150		1.98	2.00	-1.0	30.0
Perfluorobutanesulfonic acid	AveID	0.9673	0.9527		1.74	1.77	-1.5	30.0
PEPA	AveID	0.1783	0.1800		2.02	2.00	0.9	30.0
PFECA A	AveID	1.018	0.9833		1.93	2.00	-3.5	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	2.860	2.743		1.71	1.78	-4.1	30.0
PFECA B	AveID	1.569	1.513		1.93	2.00	-3.6	30.0
FBSA	AveID	0.0494	0.0493		1.99	2.00	-0.3	30.0
4:2 Fluorotelomer sulfonic acid	AveID	2.650	2.666		1.88	1.87	0.6	30.0
Perfluorohexanoic acid	AveID	0.7751	0.7769		2.00	2.00	0.2	30.0
Perfluoropentanesulfonic acid	AveID	0.9194	0.8775		1.79	1.88	-4.6	30.0
PFO3OA	AveID	0.4631	0.4560		1.97	2.00	-1.5	30.0
HFPODA	AveID	1.235	1.112		1.80	2.00	-9.9	30.0
Hydro-EVE Acid	AveID	1.375	1.416		2.06	2.00	3.0	30.0
R-PSDCA	AveID	2.464	2.407		1.95	2.00	-2.3	30.0
FBSEE	AveID	0.0530	0.0441		1.66	2.00	-16.8	30.0
Perfluoroheptanoic acid	AveID	0.9162	0.9290		2.03	2.00	1.4	30.0
Perfluorohexanesulfonic acid	AveID	0.9702	0.9684		1.82	1.82	-0.2	30.0
Hydro-PS Acid	AveID	1.672	1.611		1.93	2.00	-3.7	30.0
DONA	AveID	1.157	1.114		1.82	1.89	-3.7	30.0
PFECA G	AveID	1.613	1.672		2.07	2.00	3.7	30.0
5:3 FTCA	AveID	0.1711	0.1652		1.93	2.00	-3.4	30.0
6:2 FTUCA	AveID	1.239	1.247		2.01	2.00	0.6	30.0
6:2 FTCA	AveID	1.034	0.9638		1.86	2.00	-6.8	30.0
PFO4DA	AveID	0.5638	0.5576		1.98	2.00	-1.1	30.0
PS Acid	AveID	0.5935	0.5865		1.98	2.00	-1.2	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: ICV 410-228775/9 Calibration Date: 03/01/2022 22:44

Instrument ID: 30728 Calib Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 03/01/2022 22:21

Lab File ID: 22MAR01MCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
EVE Acid	AveID	1.414	1.436		2.03	2.00	1.6	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.306	1.284		1.82	1.85	-1.7	30.0
6:2 Fluorotelomer sulfonic acid	AveID	3.641	3.653		1.90	1.90	0.3	30.0
Perfluoroheptanesulfonic acid	AveID	0.9614	0.9319		1.85	1.90	-3.1	30.0
Perfluorooctanoic acid	AveID	0.7464	0.7652		2.05	2.00	2.5	30.0
FHxSA	AveID	0.0638	0.0634		1.99	2.00	-0.6	30.0
TAF	AveID	0.5334	0.5160		1.93	2.00	-3.3	30.0
Perfluorooctanesulfonic acid	AveID	0.9774	0.9302		1.76	1.85	-4.8	30.0
Perfluorononanoic acid	AveID	0.8711	0.8392		1.93	2.00	-3.7	30.0
HFPO-TrA	AveID	0.0151	0.0154		20.4	20.0	1.8	30.0
7:3 FTCA	AveID	2.428	2.250		1.85	2.00	-7.4	30.0
8:2 FTUCA	AveID	0.9431	0.9408		2.00	2.00	-0.2	30.0
8:2 FTCA	AveID	0.998	1.071		2.15	2.00	7.3	30.0
9Cl-PF3ONS	AveID	1.406	1.354		1.79	1.86	-3.7	30.0
Perfluorononanesulfonic acid	AveID	0.9688	0.8761		1.74	1.92	-9.6	30.0
8:2 Fluorotelomer sulfonic acid	AveID	5.686	5.473		1.84	1.92	-3.7	30.0
Perfluorodecanoic acid	AveID	0.8410	0.8353		1.99	2.00	-0.7	30.0
Perfluorooctanesulfonamide	AveID	0.9919	0.9677		1.95	2.00	-2.4	30.0
NMeFOSAA	AveID	0.8820	0.9105		2.06	2.00	3.2	30.0
Perfluorodecanesulfonic acid	AveID	0.9543	0.8723		1.76	1.93	-8.6	30.0
Perfluoroundecanoic acid	AveID	0.7448	0.8009		2.15	2.00	7.5	30.0
NEtFOSAA	AveID	0.9602	1.044		2.17	2.00	8.7	30.0
10:2 FTUCA	AveID	0.9614	0.9856		2.05	2.00	2.5	30.0
11Cl-PF3OUdS	AveID	1.038	0.9529		1.71	1.86	-8.2	30.0
10:2 FTCA	AveID	0.9726	0.9254		1.90	2.00	-4.8	30.0
Perfluorododecanoic acid	AveID	0.9122	0.9221		2.02	2.00	1.1	30.0
10:2 FTS	AveID	4.224	4.005		1.83	1.93	-5.2	30.0
NMeFOSE	AveID	1.015	1.019		2.01	2.00	0.3	30.0
NMeFOSA	AveID	0.9755	0.9779		2.00	2.00	0.2	30.0
Perfluorododecanesulfonic acid	AveID	0.8525	0.7948		1.80	1.94	-6.8	30.0
NEtFOSE	AveID	1.006	0.9825		1.95	2.00	-2.4	30.0
NEtFOSA	AveID	1.045	0.9840		1.88	2.00	-5.9	30.0
Perfluorotridecanoic acid	AveID	0.7915	0.8159		2.06	2.00	3.1	30.0
HFPO-TeA	AveID	0.0162	0.0166		20.3	19.8	2.7	30.0
Perfluorotetradecanoic acid	AveID	0.8830	0.8736		1.98	2.00	-1.1	30.0
Perfluorohexadecanoic acid	AveID	0.5823	0.6068		2.08	2.00	4.2	30.0
Perfluorooctadecanoic acid	AveID	0.4186	0.4554		2.18	2.00	8.8	30.0
13C4 PFBA	Ave	1.081	1.098		10.2	10.0	1.6	30.0
13C5 PFPeA	Ave	0.8754	0.9200		10.5	10.0	5.1	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: ICV 410-228775/9 Calibration Date: 03/01/2022 22:44

Instrument ID: 30728 Calib Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 03/01/2022 22:21

Lab File ID: 22MAR01MCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C3 PFBS	Ave	0.8850	0.9587		10.1	9.30	8.3	30.0
M2-4:2 FTS	Ave	0.1411	0.1550		10.3	9.34	9.8	30.0
13C5 PFHxA	Ave	1.160	1.192		10.3	10.0	2.7	30.0
13C3 HFPO-DA	Ave	0.2724	0.2991		11.0	10.0	9.8	30.0
13C3 PFHxS	Ave	0.8246	0.8947		10.3	9.46	8.5	30.0
13C4 PFHpA	Ave	1.250	1.386		11.1	10.0	10.9	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	0.6822	0.7095		10.4	10.0	4.0	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.1074	0.1206		11.2	10.0	12.3	30.0
M2-6:2 FTS	Ave	0.0505	0.0564		10.6	9.50	11.8	30.0
13C8 PFOA	Ave	1.224	1.271		10.4	10.0	3.8	30.0
13C8 PFOS	Ave	0.9689	1.036		10.2	9.56	6.9	30.0
13C9 PFNA	Ave	0.9487	0.9613		10.1	10.0	1.3	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	0.6098	0.6658		10.9	10.0	9.2	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.0686	0.0756		11.0	10.0	10.1	30.0
13C6 PFDA	Ave	0.9544	0.9907		10.4	10.0	3.8	30.0
M2-8:2 FTS	Ave	0.0248	0.0261		10.1	9.58	5.3	30.0
13C8 FOSA	Ave	1.232	1.320		10.7	10.0	7.2	30.0
d3-NMeFOSAA	Ave	0.2683	0.2654		9.89	10.0	-1.1	30.0
13C7 PFUnA	Ave	1.010	1.018		10.1	10.0	0.7	30.0
d5-NEtFOSAA	Ave	0.1916	0.1993		10.4	10.0	4.0	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.5368	0.5557		10.4	10.0	3.5	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0499	0.0552		11.1	10.0	10.5	30.0
13C2-PFDoDA	Ave	0.7697	0.7881		10.2	10.0	2.4	30.0
d7-N-MeFOSE-M	Ave	0.2005	0.2001		9.98	10.0	-0.2	30.0
d3-NMePFOSA	Ave	0.1275	0.1314		10.3	10.0	3.1	30.0
d9-N-EtFOSE-M	Ave	0.2271	0.2354		10.4	10.0	3.7	30.0
d5-NEtPFOSA	Ave	0.1185	0.1233		10.4	10.0	4.0	30.0
13C2 PFTeDA	Ave	0.6192	0.6172		9.97	10.0	-0.3	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-09.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 01-Mar-2022 22:44:05 ALS Bottle#: 20009 Worklist Smp#: 9
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: Plate: 1 Rack: 1 410-0051412-009
Operator ID: US19_USR_INS20261 Instrument ID: 30728
Sublist:

Method: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 08:38:48 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617

First Level Reviewer: polaskia Date: 01-Mar-2022 23:30:17
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.066	1.065	0.001	0.280	366508	1.88			3851	
1 MTP										
175.00 > 97.00	1.519	1.518	0.001	0.398	136162	1.92			3104	
2 PPF Acid										
163.00 > 119.00	1.867	1.874	-0.007	0.490	664668	1.94			2158	
3 PFMOAA										
179.00 > 85.00	2.882	2.891	-0.009	0.756	564787	1.93			4496	
4 R-PSDA										
441.00 > 241.00	3.792	3.792	0.0	0.850	48701	1.88			2681	
5 R-EVE										
405.00 > 217.00	3.792	3.793	-0.001	0.995	133756	2.01			10060	
D 6 13C4 PFBA										
217.00 > 172.00	3.813	3.808	0.005	1.000	7321172	10.2		102	171403	
* 8 13C3-PFBA										
216.00 > 172.00	3.813	3.815	-0.002		3332939	5.00			12053	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.813	3.816	-0.003	1.000	1235212	1.96			4578	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.813	3.817	-0.004	0.855	196569	1.99			13226	
10 PMPA										
229.00 > 185.00	3.951	3.956	-0.005	1.036	739131	1.98			10163	
11 PFPrS										
249.00 > 99.00	4.013	4.020	-0.007	1.052	317897	1.89			16239	
12 NVHOS										
297.00 > 135.00	4.061	4.060	0.001	0.911	316388	1.84			15835	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 PFECA F										
229.00 > 85.00	4.081	4.082	-0.001	1.070	1420051	2.04			15396	
14 PFO2HxA										
245.00 > 85.00	4.277	4.286	-0.009	1.122	532745	1.93			25208	
15 3:3 FTCA										
241.00 > 177.00	4.403	4.403	0.0	1.000	95638	1.97			5808	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.403	4.404	-0.001	1.000	1410608	1.98			7449	
D 17 13C5 PFPeA										
268.00 > 223.00	4.403	4.405	-0.002	1.155	6132806	10.5		105	189006	
D 19 13C3 PFBS										
302.00 > 80.00	4.460	4.454	0.006	1.170	5943162	10.1		108	314342	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.452	4.460	-0.008	0.998	1077643	1.74	Target=3.14		22455	
299.00 > 99.00	4.452	4.460	-0.008	0.998	333338		3.23(1.57-4.71)		11648	
20 PEPA										
279.00 > 235.00	4.514	4.517	-0.003	1.184	263518	2.02			5977	
21 PFECA A										
279.00 > 85.00	4.534	4.543	-0.009	1.016	1256750	1.93			43617	
22 PES										
315.00 > 135.00	4.635	4.638	-0.003	1.039	3120328	1.71			135441	
23 PFECA B										
201.00 > 85.00	4.765	4.771	-0.006	1.068	1933505	1.93	Target=1.81		45032	
295.00 > 201.00	4.765	4.771	-0.006	1.068	1083880		1.78(0.90-2.71)		57585	
110 FBSA										
299.00 > 78.00	4.784	4.792	-0.008	1.073	62952	1.99			4190	
24 4:2 FTS										
327.00 > 307.00	4.804	4.803	0.001	1.000	512140	1.88	Target=1.33		35009	
327.00 > 81.00	4.794	4.803	-0.009	0.998	371292		1.38(0.66-1.99)		18738	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.804	4.805	-0.001	0.854	960445	10.3		110	39383	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.833	4.843	-0.010	0.998	1229282	2.00	Target=12.64		17348	
313.00 > 119.00	4.833	4.843	-0.010	0.998	94625		12.99(6.32-18.96)		3676	
D 27 13C5 PFHxA										
318.00 > 273.00	4.843	4.845	-0.002	0.861	7911606	10.3		103	255582	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.863	4.863	0.0	1.090	1051950	1.79	Target=3.66		68436	
349.00 > 99.00	4.853	4.863	-0.010	1.088	277392		3.79(1.83-5.49)		18193	
29 PFO3OA										
311.00 > 85.00	4.903	4.903	0.0	1.286	667661	1.97			32472	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.976	4.977	-0.001	0.884	1985118	11.0		110	98997	
30 HFPO-DA										
329.00 > 285.00	4.976	4.978	-0.002	1.000	441656	1.80			8799	
32 Hydro-EVE Acid										
427.00 > 283.00	5.198	5.201	-0.003	1.363	2073787	2.06			146449	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
33 R-PSDCA										
397.00 > 217.00	5.198	5.209	-0.011	1.165	3076441	1.95			112688	
108 FBSEE										
386.00 > 166.00	5.209	5.220	-0.011	1.168	56364	1.66	Target=1.76		3439	
386.00 > 80.00	5.209	5.220	-0.011	1.168	37343		1.51(0.88-2.64)		2226	
34 Hydro-PS Acid										
463.00 > 263.00	5.263	5.246	0.017	1.180	2058893	1.93			139161	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.252	5.254	-0.002	1.000	1048776	1.82	Target=3.57		2228	
399.00 > 99.00	5.242	5.254	-0.012	0.998	293160		3.58(1.78-5.35)		652	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.252	5.254	-0.002	1.000	1709279	2.03	Target=3.54		31389	
363.00 > 169.00	5.242	5.254	-0.012	0.998	459587		3.72(1.77-5.31)		14231	
D 37 13C3 PFHxS										
402.00 > 80.00	5.252	5.254	-0.002	0.934	5617147	10.3		109	174651	
D 38 13C4 PFHpA										
367.00 > 322.00	5.252	5.254	-0.002	0.934	9199562	11.1		111	424224	
39 DONA										
377.00 > 251.00	5.296	5.303	-0.007	1.008	1936759	1.82			52835	
40 PFECA G										
379.00 > 185.00	5.317	5.322	-0.005	1.394	2448669	2.07			94689	
41 5:3 FTCA										
341.00 > 237.00	5.328	5.338	-0.010	1.014	303984	1.93	Target=3.04		14598	
341.00 > 217.00	5.328	5.338	-0.010	1.014	97609		3.11(1.52-4.55)		6190	
42 6:2 FTUCA										
357.00 > 293.00	5.358	5.359	-0.001	1.000	1173917	2.01			20859	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.358	5.359	-0.001	0.952	4708418	10.4		104	157959	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.376	5.378	-0.002	0.956	800110	11.2		112	41589	
44 6:2 FTCA										
377.00 > 293.00	5.376	5.378	-0.002	1.000	154226	1.86			6300	
46 PFO4DA										
377.00 > 85.00	5.435	5.435	0.0	1.425	816516	1.98			1073	
47 PS Acid										
443.00 > 147.00	5.477	5.479	-0.002	1.228	749611	1.98			54047	
48 EVE Acid										
407.00 > 263.00	5.496	5.500	-0.004	1.441	2102913	2.03			110561	
49 PFECHS										
461.00 > 381.00	5.565	5.569	-0.004	1.059	1409392	1.82	Target=1.56		100184	
461.00 > 99.00	5.565	5.569	-0.004	1.059	884278		1.59(0.78-2.34)		46405	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.608	5.612	-0.004	0.997	355842	10.6		112	24572	
50 6:2 FTS										
427.00 > 407.00	5.608	5.613	-0.005	1.000	259422	1.90	Target=1.19		18155	
427.00 > 81.00	5.608	5.613	-0.005	1.000	206296		1.26(0.60-1.79)		10565	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.608	5.618	-0.010	1.068	1053550	1.85	Target=3.73		72797	
449.00 > 99.00	5.608	5.618	-0.010	1.068	287497		3.66(1.87-5.60)		19981	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.626	5.630	-0.004	1.000	1290637	2.05	Target=2.20		77854	
413.00 > 169.00	5.617	5.630	-0.013	0.998	558892		2.31(1.10-3.30)		104008	
* 55 13C2 PFOA										
415.00 > 370.00	5.626	5.630	-0.004		3318155	5.00			137265	
D 54 13C8 PFOA										
421.00 > 376.00	5.626	5.630	-0.004	1.000	8433735	10.4		104	216509	
106 FHxSA										
399.00 > 78.00	5.684	5.692	-0.008	1.082	75316	1.99			5209	
56 TAF										
443.00 > 85.00	5.877	5.879	-0.002	1.541	755539	1.93			22499	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.951	5.954	-0.003	1.000	1133966	1.76	Target=4.38		2072	
499.00 > 99.00	5.942	5.954	-0.012	0.999	240660		4.71(2.19-6.58)		525	
* 59 13C4 PFOS										
503.00 > 80.00	5.951	5.957	-0.005		3041012	4.78			164936	
D 58 13C8 PFOS										
507.00 > 80.00	5.951	5.957	-0.005	1.000	6295949	10.2		107	80601	
61 Perfluorononanoic acid										
463.00 > 419.00	5.968	5.973	-0.005	1.000	1025891	1.93	Target=3.95		35846	
463.00 > 169.00	5.968	5.973	-0.005	1.000	262816		3.90(1.97-5.92)		13743	
D 60 13C9 PFNA										
472.00 > 427.00	5.968	5.974	-0.006	1.003	6112381	10.1		101	325677	
109 HFPO-TrA										M
496.00 > 185.00	6.068	6.068	0.0	1.220	61224	20.4			4534	M
62 7:3 FTCA										
441.00 > 337.00	6.077	6.077	0.0	1.130	359998	1.85			14543	
63 8:2 FTUCA										
457.00 > 393.00	6.077	6.084	-0.007	1.000	937535	2.00			31915	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.077	6.084	-0.007	0.968	4982423	10.9		109	199191	
65 8:2 FTCA										
477.00 > 393.00	6.097	6.099	-0.002	1.000	121146	2.15			8287	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.097	6.104	-0.007	0.971	565504	11.0		110	38296	
67 9ClFOS										
531.00 > 351.00	6.127	6.130	-0.003	1.029	1659022	1.79			22221	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.250	6.254	-0.004	1.050	1107785	1.74	Target=4.33		61640	
549.00 > 99.00	6.250	6.254	-0.004	1.050	274452		4.04(2.16-6.49)		20630	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.276	6.279	-0.003	1.000	1238516	1.99	Target=7.98		33565	
513.00 > 169.00	6.276	6.279	-0.003	1.000	158731		7.80(3.99-11.97)		8546	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 70 13C2 PFDA										
515.00 > 470.00	6.276	6.281	-0.005		3741584	5.00			201733	
D 71 13C6 PFDA										
519.00 > 474.00	6.276	6.281	-0.005	1.000	7413298	10.4		104	529734	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.284	6.281	0.003	1.001	186899	10.1		105	13127	
72 8:2 FTS										
527.00 > 507.00	6.276	6.282	-0.006	0.999	204567	1.84	Target=1.01		14603	
527.00 > 81.00	6.276	6.282	-0.006	0.999	212980		0.96(0.50-1.51)		11544	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.367	6.371	-0.004	1.000	1911849	1.95			47307	
D 74 13C8 FOSA										
506.00 > 78.00	6.367	6.374	-0.007	1.015	9878553	10.7		107	478955	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.419	6.426	-0.007	1.023	1985714	9.89		98.9	63037	
76 NMeFOSAA										M
570.00 > 419.00	6.419	6.429	-0.010	1.000	361609	2.06	Target=1.69		27727	M
570.00 > 483.00	6.430	6.429	0.001	1.002	220611		1.64(0.85-2.54)		209	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.519	6.522	-0.003	1.096	1107642	1.76	Target=4.28		52556	
599.00 > 99.00	6.519	6.522	-0.003	1.096	277641		3.99(2.14-6.42)		17557	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.542	6.550	-0.008	0.998	1219889	2.15	Target=7.28		14709	
563.00 > 169.00	6.542	6.550	-0.008	0.998	170267		7.16(3.64-10.92)		7894	
D 80 13C7 PFUnA										
570.00 > 525.00	6.554	6.551	0.003	1.044	7615992	10.1		101	273864	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.566	6.562	0.004	1.046	1491168	10.4		104	53627	
82 NEtFOSAA										
584.00 > 419.00	6.566	6.570	-0.004	1.000	311365	2.17	Target=1.63		89033	
584.00 > 526.00	6.566	6.570	-0.004	1.000	183638		1.70(0.82-2.45)		254	
83 10:2 FTUCA										
557.00 > 493.00	6.647	6.654	-0.007	0.998	819647	2.05			29994	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.657	6.654	0.003	1.061	4158198	10.4		104	193689	
84 11ClFOS										
631.00 > 451.00	6.657	6.660	-0.003	1.119	1167255	1.71			55053	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.668	6.665	0.003	1.063	413077	11.1		111	25957	
86 10:2 FTCA										M
577.00 > 493.00	6.668	6.670	-0.002	1.000	76453	1.90			4682	M
88 Perfluorododecanoic acid										
613.00 > 569.00	6.782	6.787	-0.005	0.998	1087503	2.02	Target=4.76		27859	
613.00 > 169.00	6.782	6.787	-0.005	0.998	228312		4.76(2.38-7.14)		8433	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.794	6.791	0.003	1.083	5897178	10.2		102	357313	

Report Date: 02-Mar-2022 08:38:50 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-09.d
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
90 10:2 FTS										
627.00 > 607.00	6.805	6.810	-0.005	1.083	150627	1.83	Target=0.75		9505	
627.00 > 81.00	6.805	6.810	-0.005	1.083	203325		0.74(0.38-1.13)		12488	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.805	6.813	-0.008	1.084	1497538	9.98		99.8	12124	
92 N-MeFOSE-M										
616.00 > 59.00	6.816	6.820	-0.004	1.002	305058	2.01			6493	
94 NMeFOSA										M
512.00 > 169.00	6.826	6.829	-0.003	1.000	192359	2.00			9174	M
D 93 d3-NMePFOSA										
515.00 > 169.00	6.826	6.834	-0.008	1.088	983524	10.3		103	21069	
95 PFDoS										
699.00 > 80.00	6.964	6.967	-0.003	1.170	1013393	1.80			42457	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.974	6.971	0.003	1.111	1761654	10.4		104	22483	
97 N-EtFOSE-M										
630.00 > 59.00	6.974	6.981	-0.007	1.000	346149	1.95			11750	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.992	6.990	0.002	1.114	922618	10.4		104	20826	
100 N-EtFOSA-M										
526.00 > 169.00	6.992	6.996	-0.004	1.000	181565	1.88			7291	
99 Perfluorotridecanoic acid										
663.00 > 619.00	6.992	6.996	-0.004	1.029	962248	2.06	Target=4.11		21826	
663.00 > 169.00	6.992	6.996	-0.004	1.029	226104		4.26(2.06-6.17)		11660	
105 HFPOTeA										
661.00 > 185.00	7.055	7.058	-0.003	1.418	65441	20.3	Target=4.76		4295	
661.00 > 119.00	7.055	7.058	-0.003	1.418	13700		4.78(2.38-7.14)		924	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.182	7.179	0.003	1.144	4618265	9.97		99.7	161691	
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.173	7.181	-0.008	0.999	806914	1.98	Target=4.34		16731	
713.00 > 169.00	7.173	7.181	-0.008	0.999	190629		4.23(2.17-6.50)		9965	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.483	7.483	0.0	1.042	560442	2.08	Target=5.44		14298	
813.00 > 169.00	7.472	7.483	-0.011	1.040	97316		5.76(2.72-8.16)		4994	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.716	7.717	-0.001	1.074	420657	2.18	Target=6.37		13030	
913.00 > 169.00	7.709	7.717	-0.008	1.073	65351		6.44(3.18-9.55)		4544	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFC_ICV_MOD_00040 Amount Added: 200.00 Units: uL

Report Date: 02-Mar-2022 08:38:50 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-09.d

Injection Date: 01-Mar-2022 22:44:05 Instrument ID: 30728

Lims ID: ICV

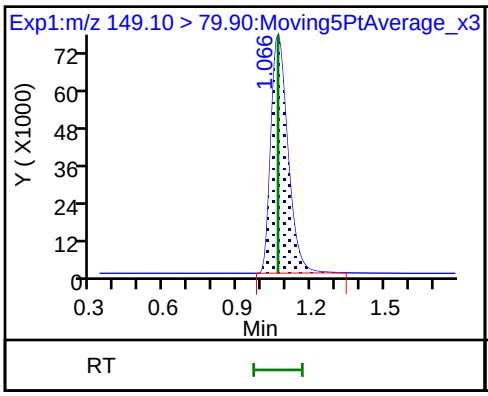
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20009 Worklist Smp#: 9

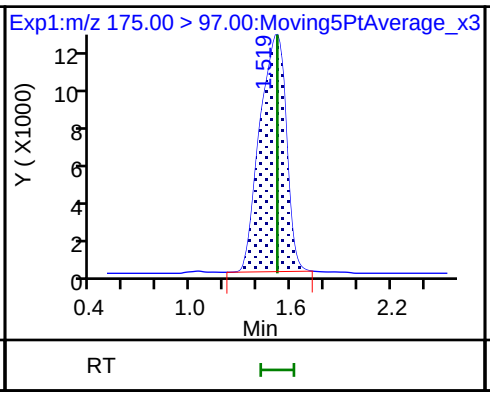
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

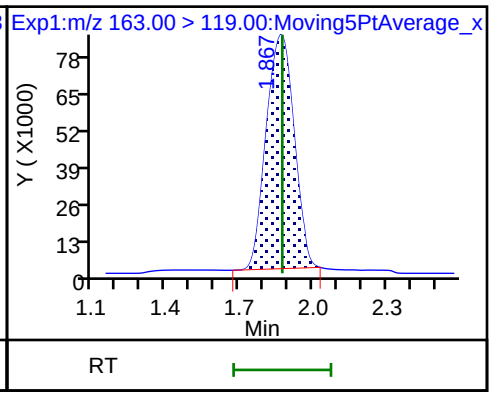
107 Sodium trifluoromethanesulfonate



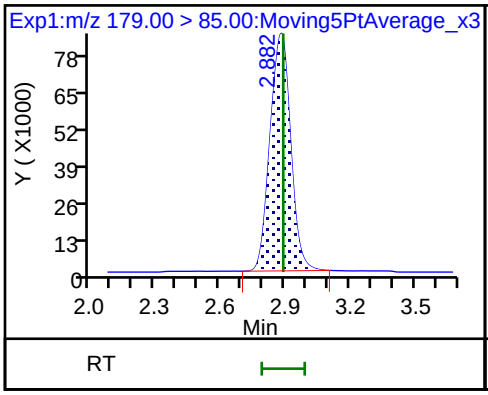
1 MTP



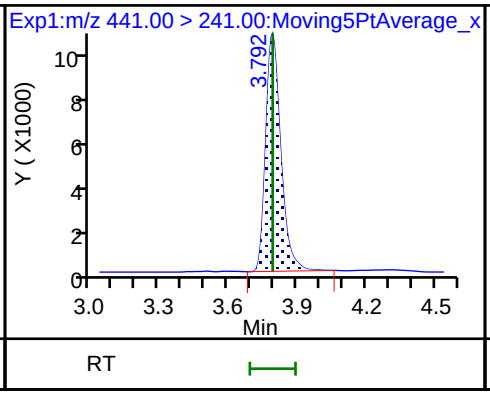
2 PPF Acid



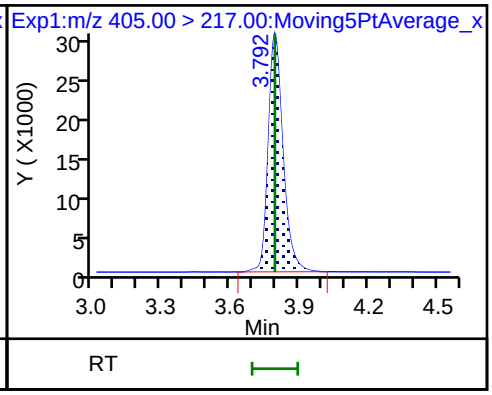
3 PFMOAA



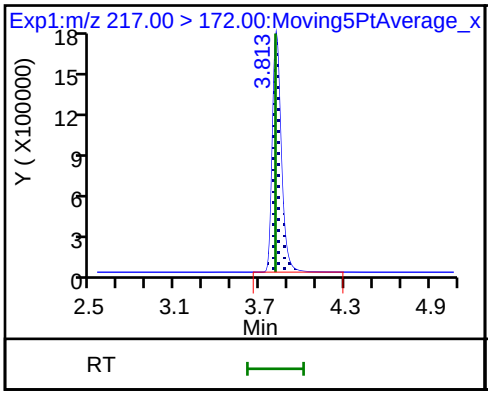
4 R-PSDA



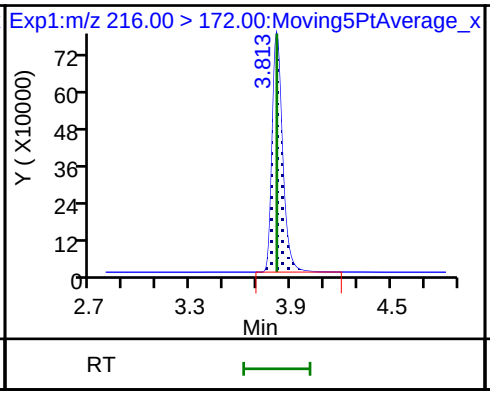
5 R-EVE



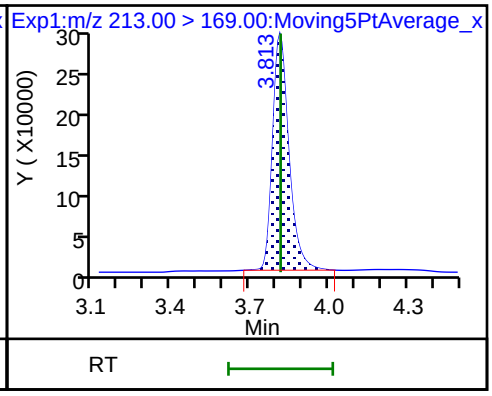
D 6 13C4 PFBA



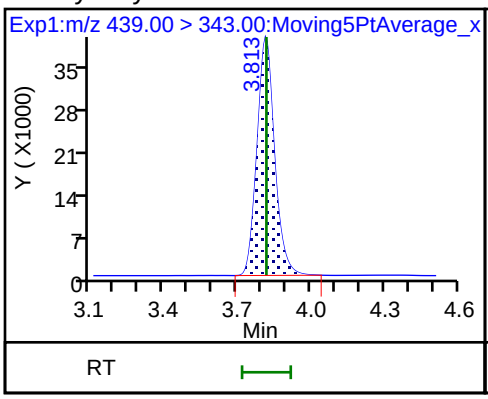
* 8 13C3-PFBA



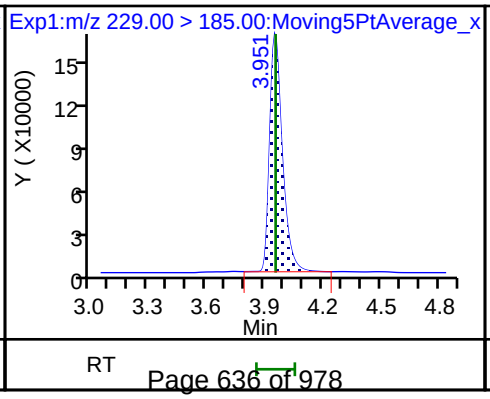
7 Perfluorobutanoic acid



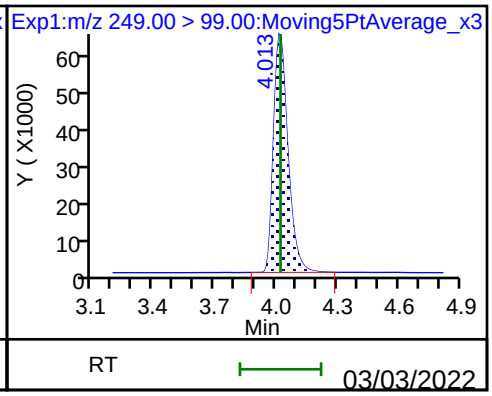
9 Hydrolyzed PSDA



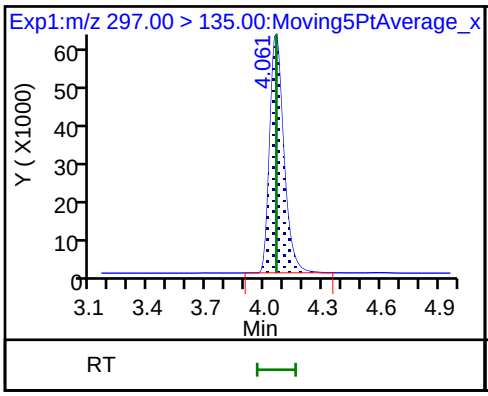
10 PMPA



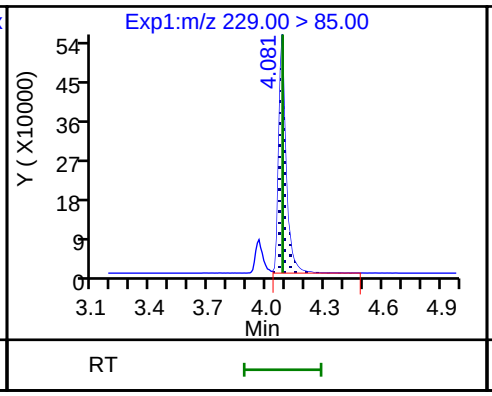
11 PFPrS



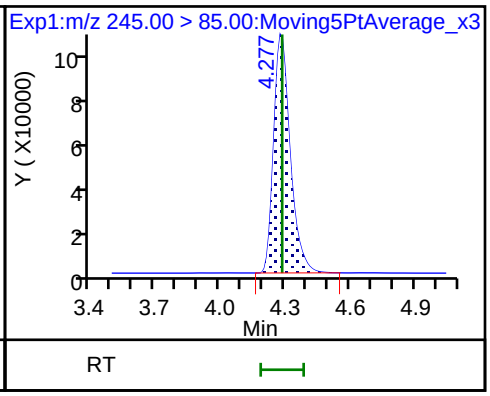
12 NVHOS



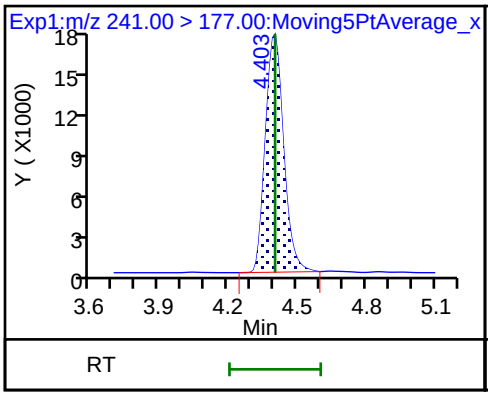
13 PFECA F



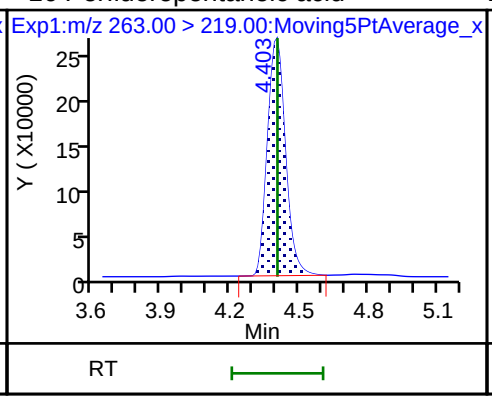
14 PFO2HxA



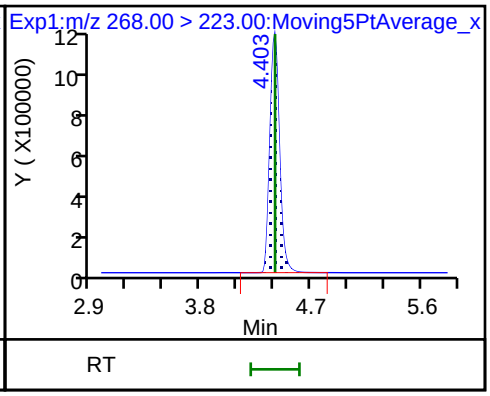
15 3:3 FTCA



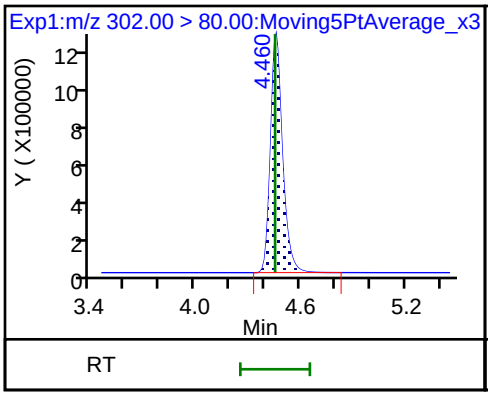
16 Perfluoropentanoic acid



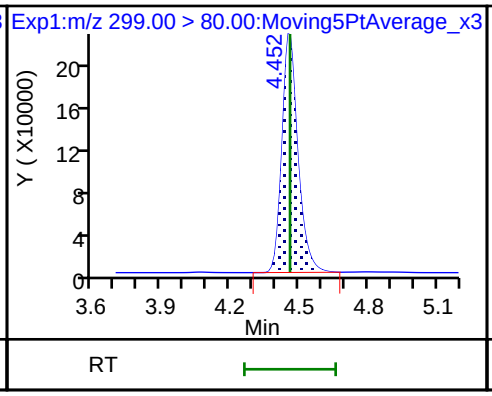
D 17 13C5 PFPeA



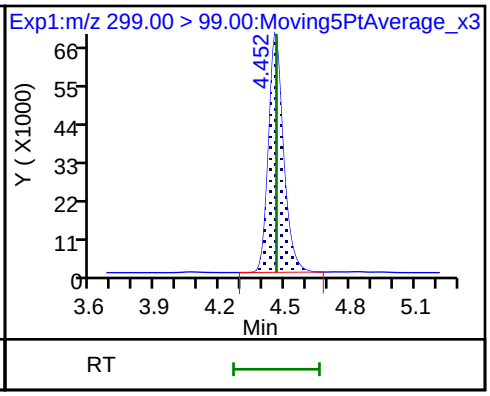
D 19 13C3 PFBS



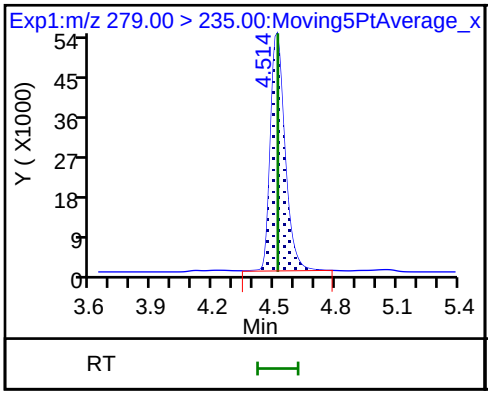
18 Perfluorobutanesulfonic acid



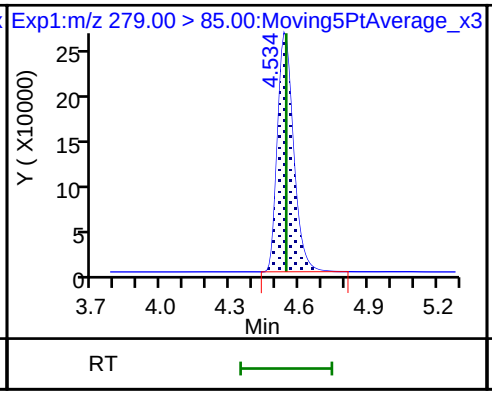
18 Perfluorobutanesulfonic acid



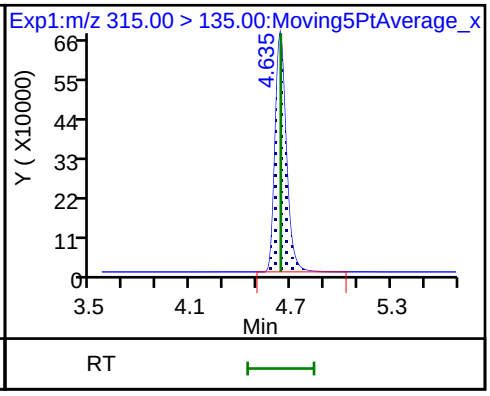
20 PEPA



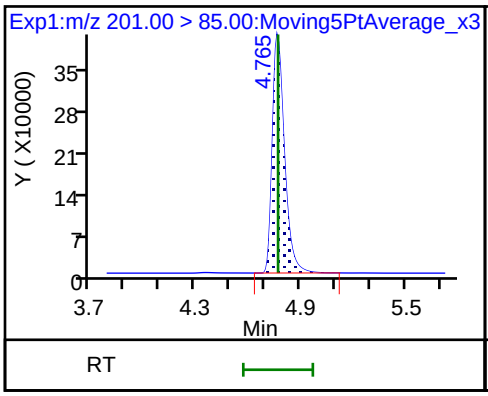
21 PFECA A



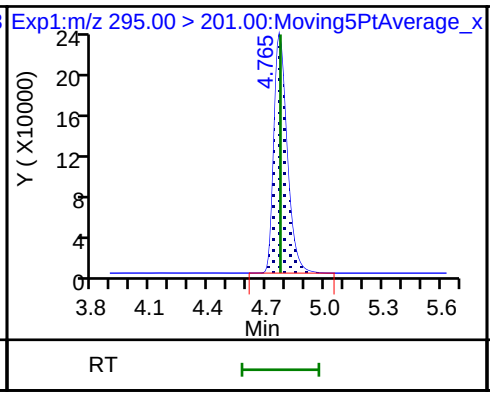
22 PES



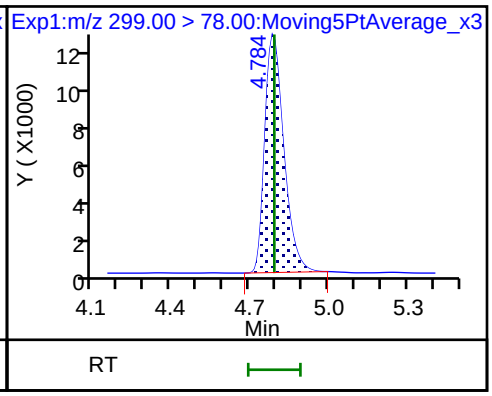
23 PFECA B



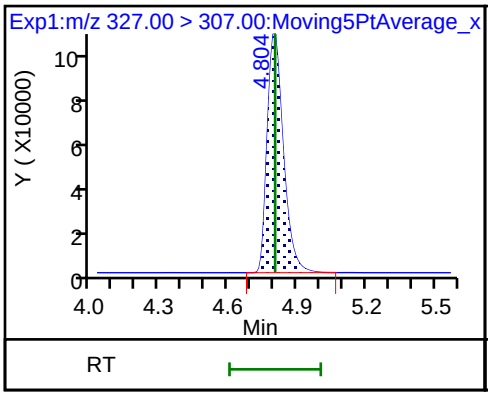
23 PFECA B



110 FBSA



24 4:2 FTS



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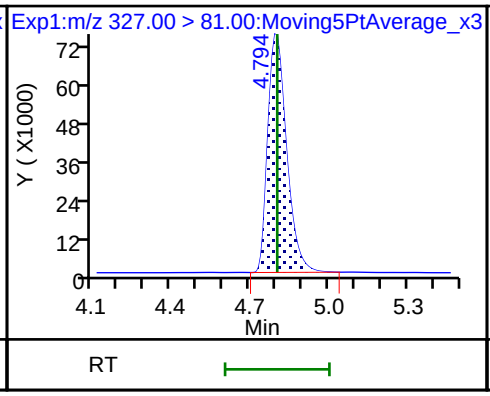
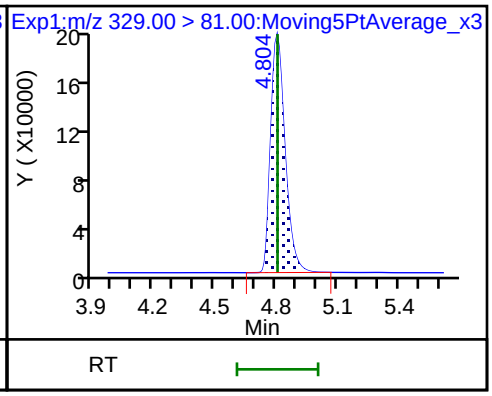
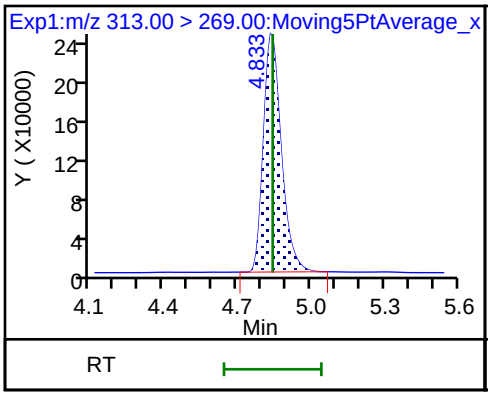


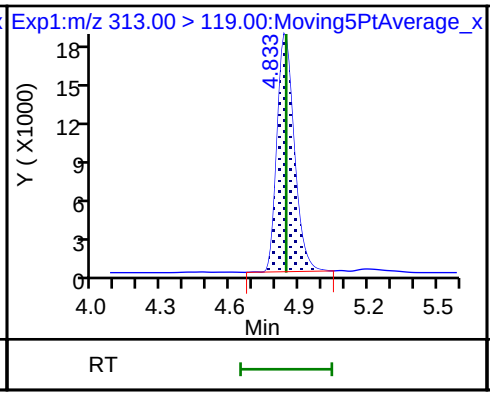
D 25 M2-4:2 FTS



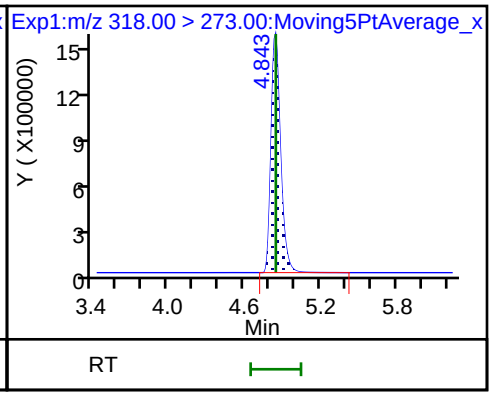
26 Perfluorohexanoic acid



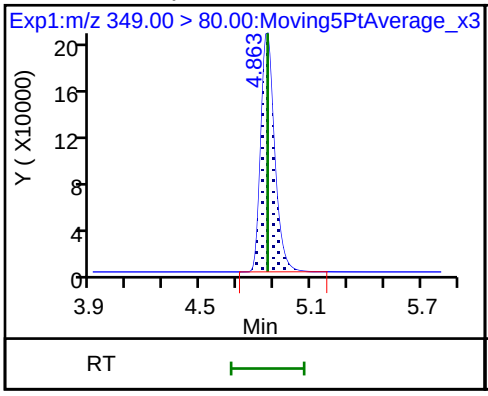
26 Perfluorohexanoic acid



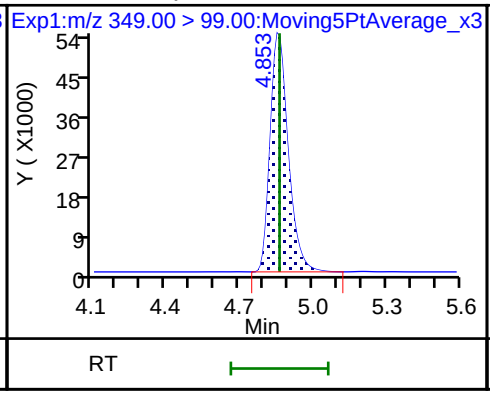
D 27 13C5 PFHxA



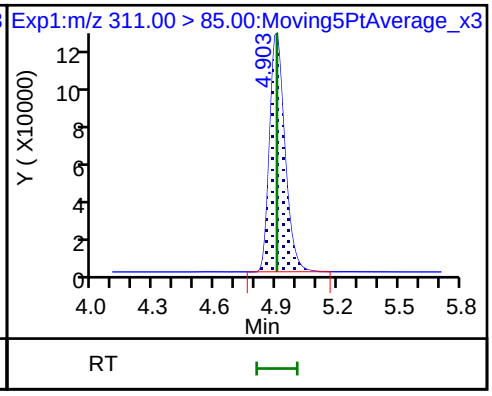
28 Perfluoropentanesulfonic acid



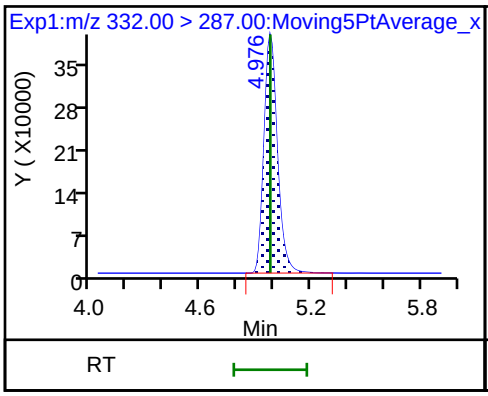
28 Perfluoropentanesulfonic acid



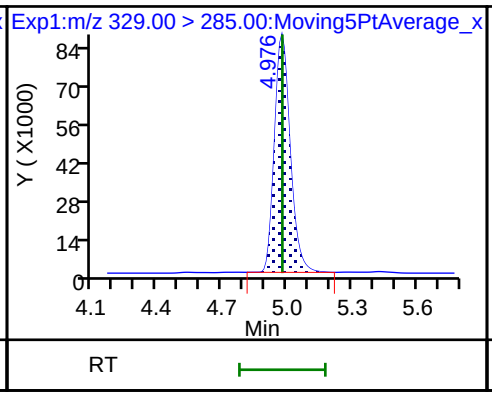
29 PFO3OA



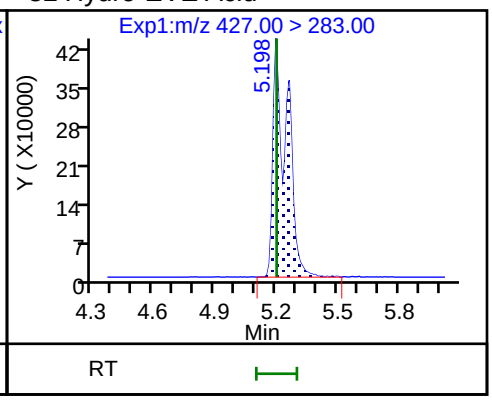
D 31 13C3 HFPO-DA



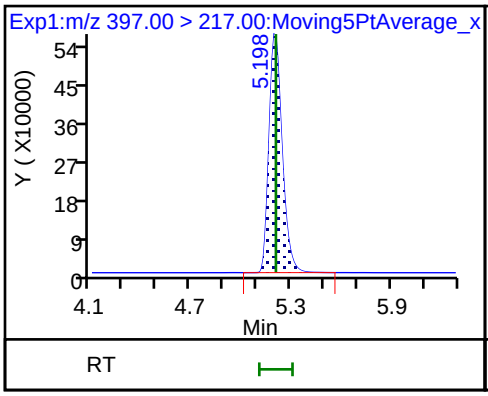
30 HFPO-DA



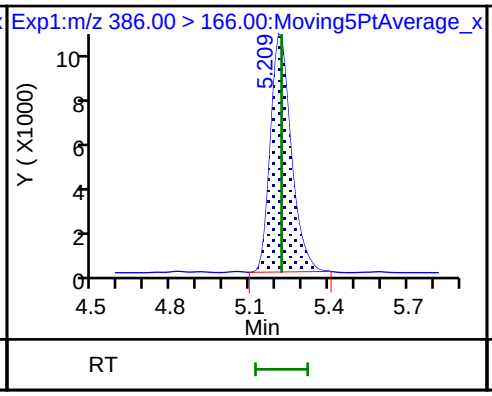
32 Hydro-EVE Acid



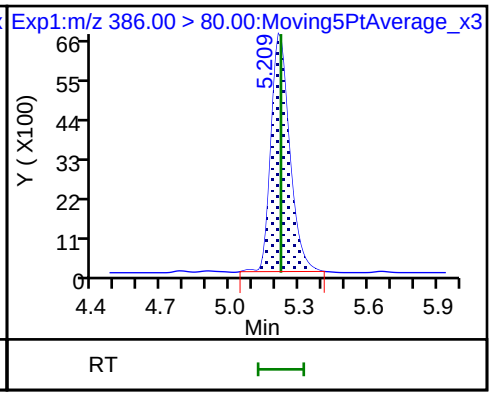
33 R-PSDCA



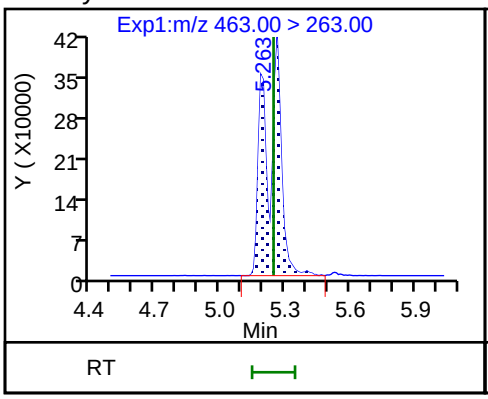
108 FBSEE



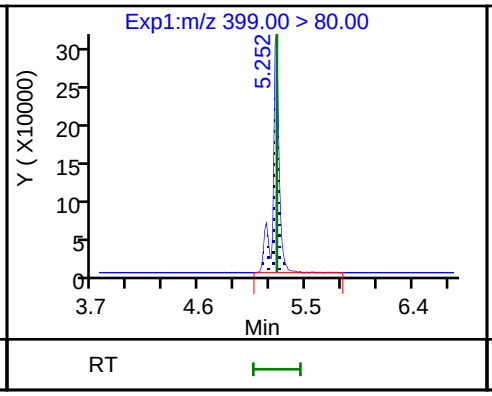
108 FBSEE



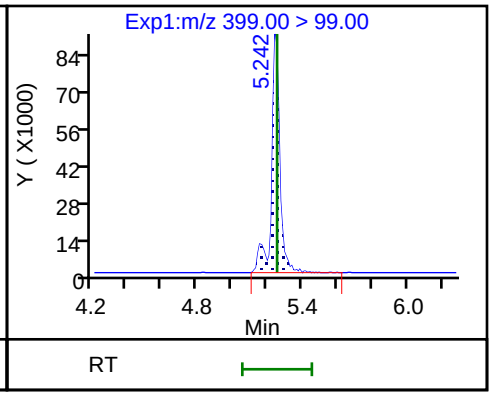
34 Hydro-PS Acid



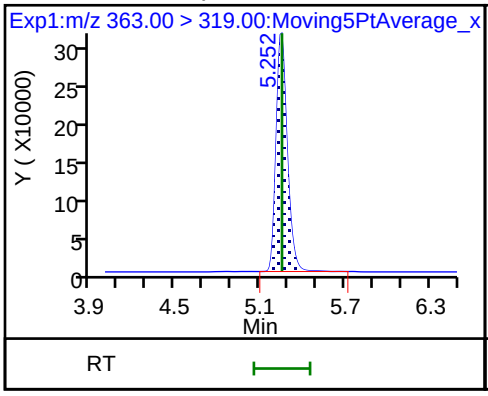
35 Perfluorohexanesulfonic acid



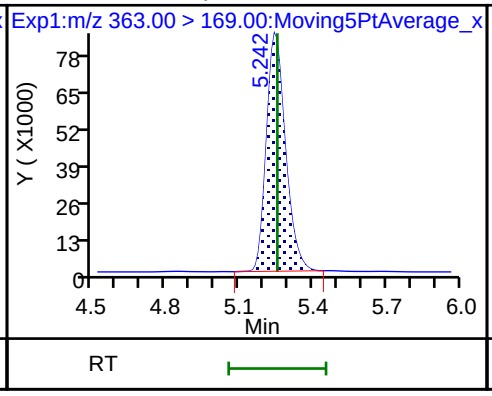
35 Perfluorohexanesulfonic acid



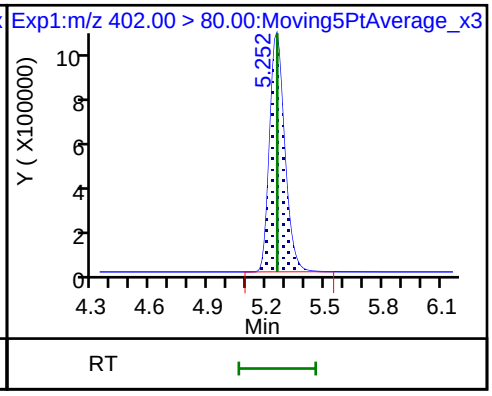
36 Perfluoroheptanoic acid



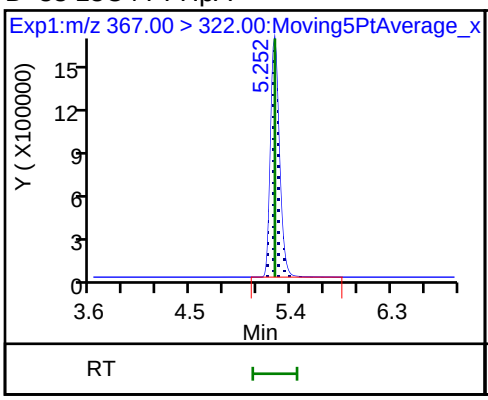
36 Perfluoroheptanoic acid



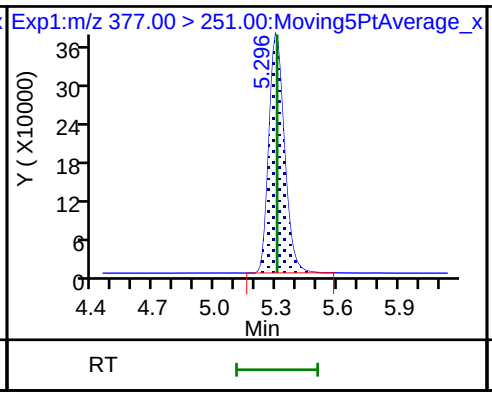
D 37 13C3 PFHxS



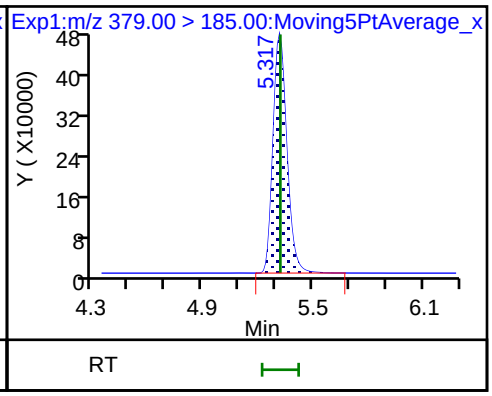
D 38 13C4 PFHpA



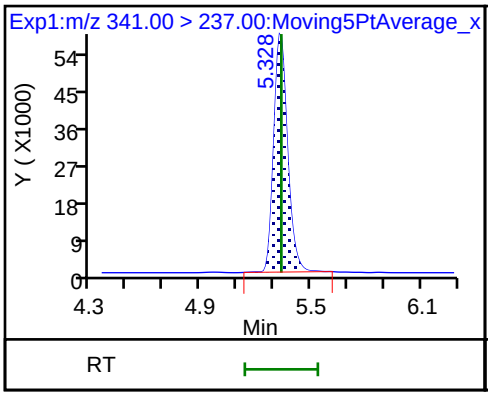
39 DONA



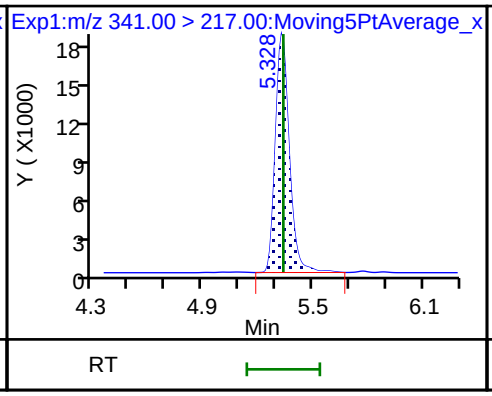
40 PFECA G



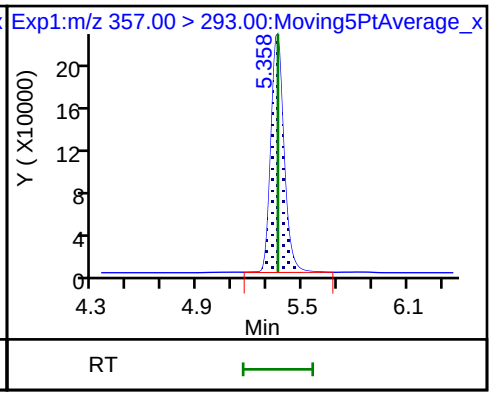
41 5:3 FTCA



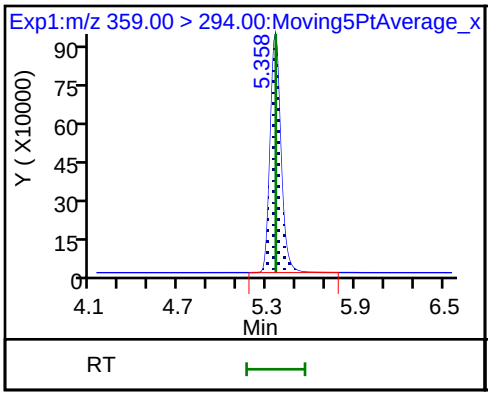
41 5:3 FTCA



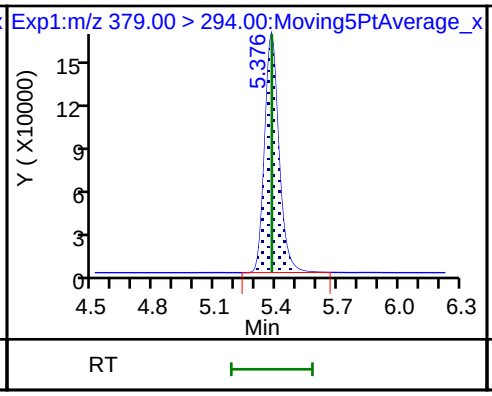
42 6:2 FTUCA



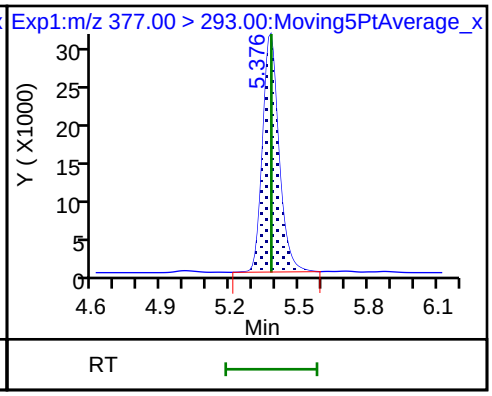
D 43 13C-6:2 FTUCA



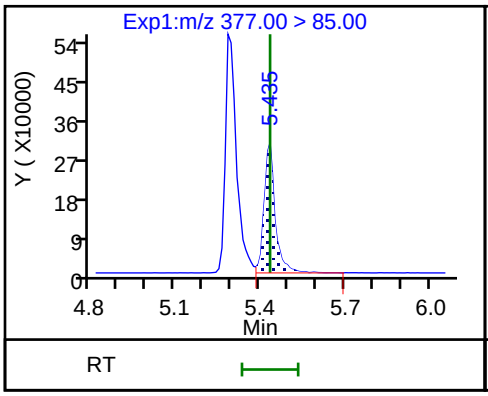
D 45 13C-6:2 FTCA



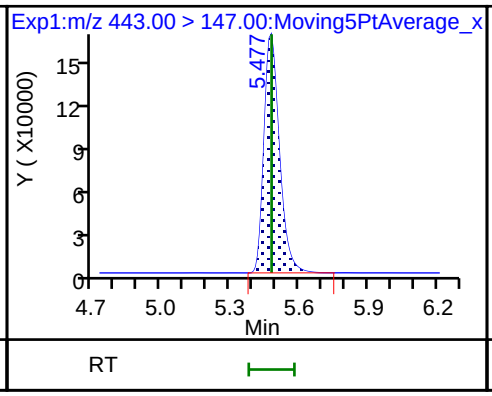
44 6:2 FTCA



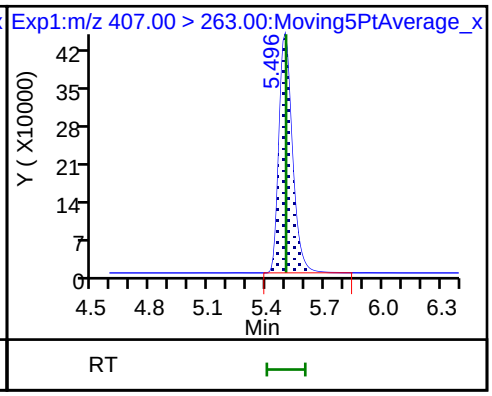
46 PFO4DA



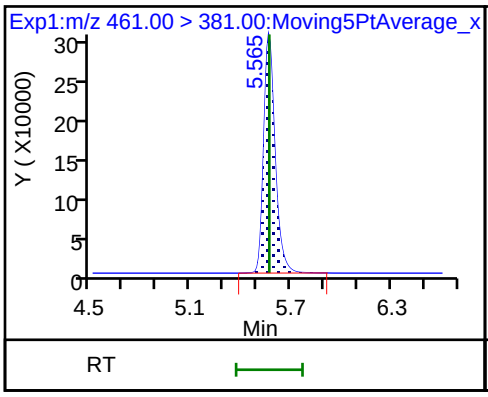
47 PS Acid



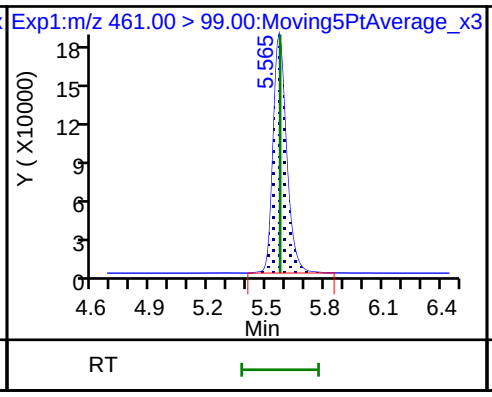
48 EVE Acid



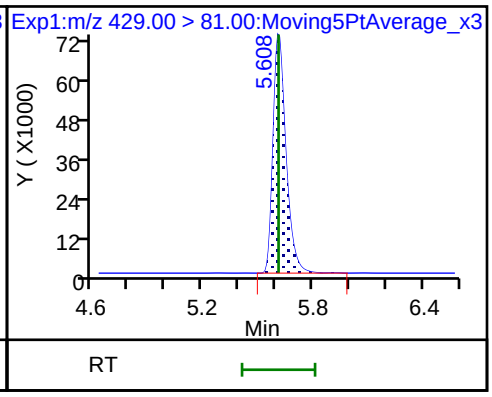
49 PFECHS



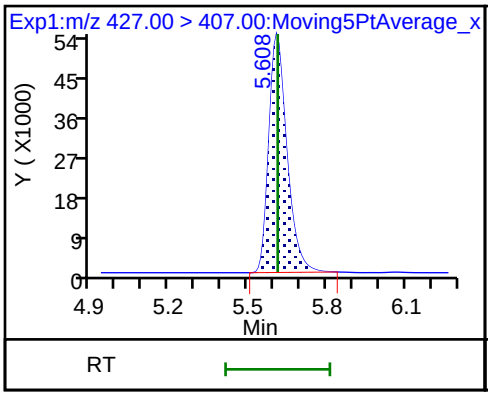
49 PFECHS



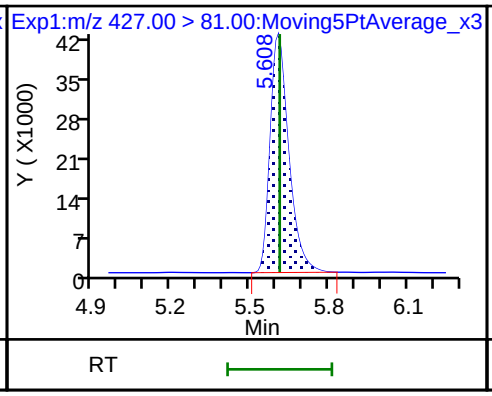
D 52 M2-6:2 FTS



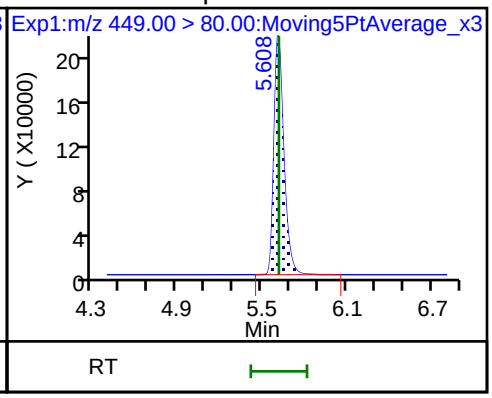
50 6:2 FTS



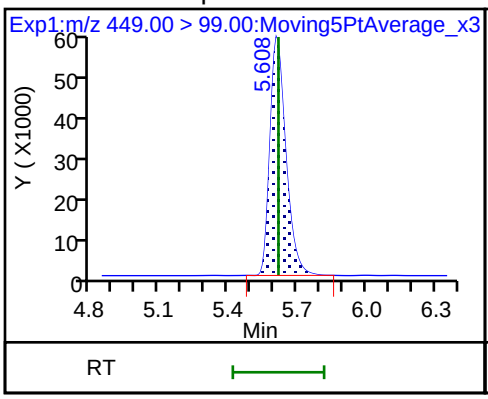
50 6:2 FTS



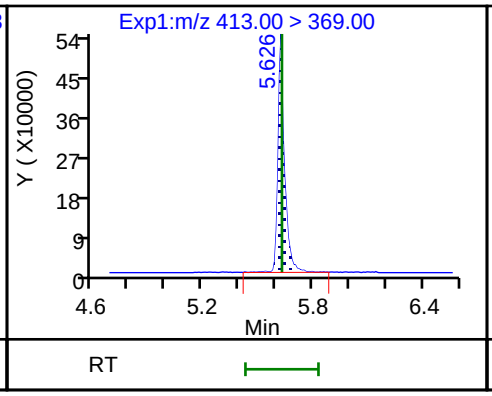
51 Perfluoroheptanesulfonic acid



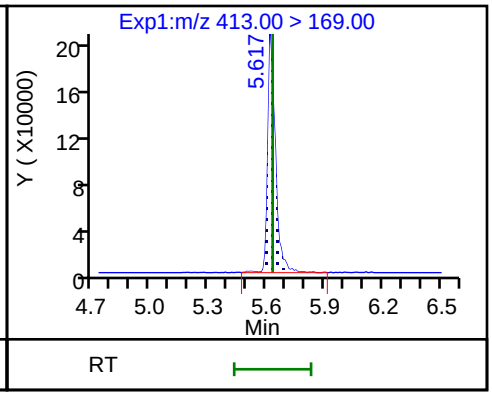
51 Perfluoroheptanesulfonic acid



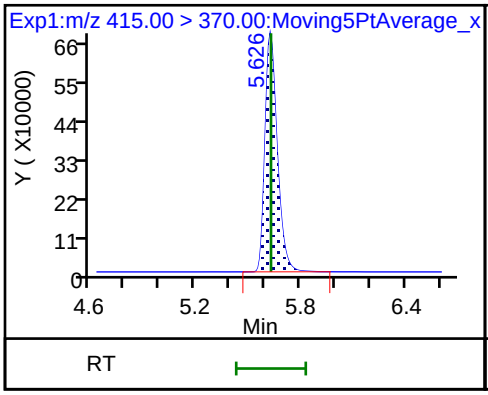
53 Perfluorooctanoic acid



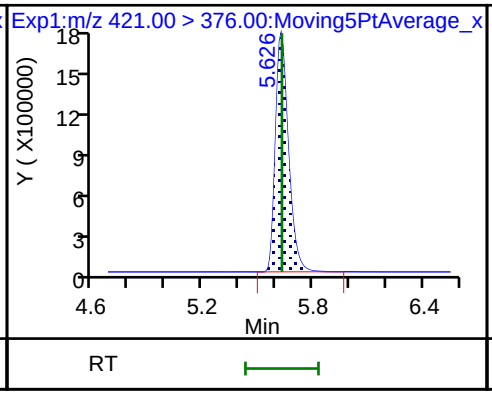
53 Perfluorooctanoic acid



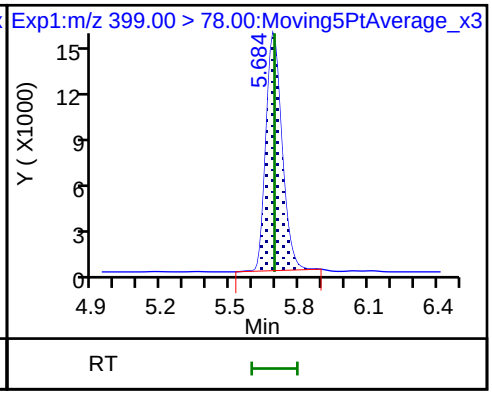
* 55 13C2 PFOA



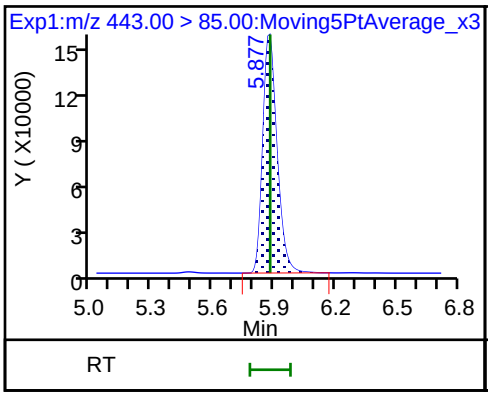
D 54 13C8 PFOA



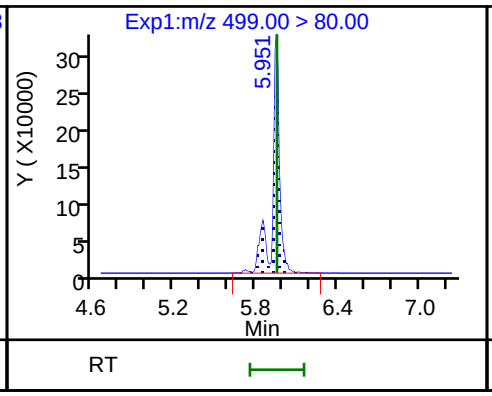
106 FHxSA



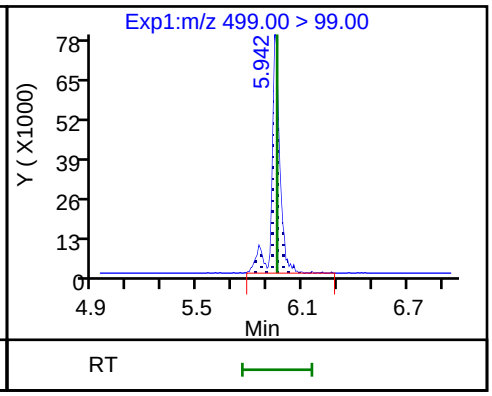
56 TAF



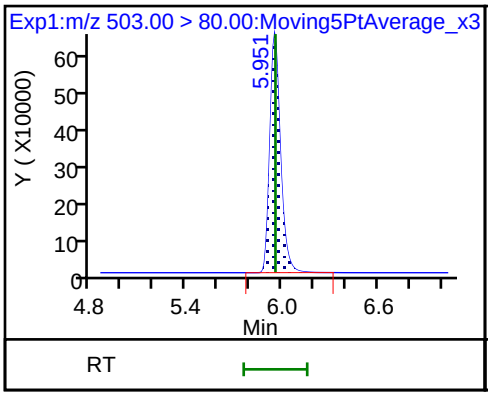
57 Perfluorooctanesulfonic acid



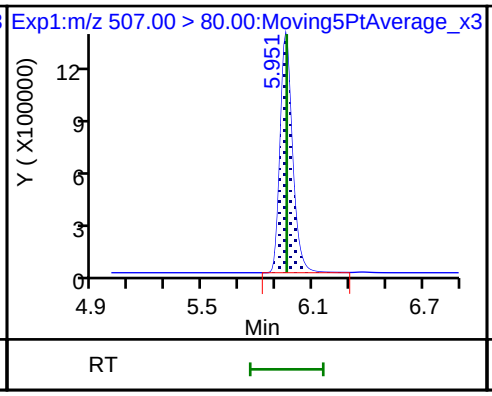
57 Perfluorooctanesulfonic acid



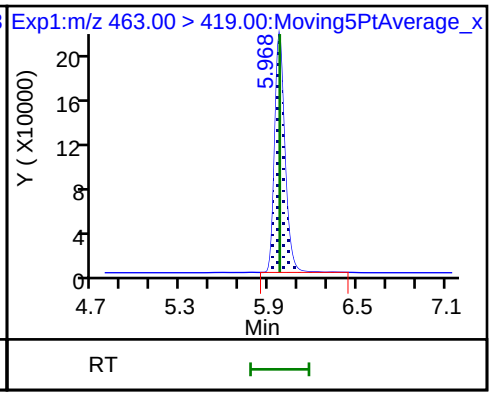
* 59 13C4 PFOS



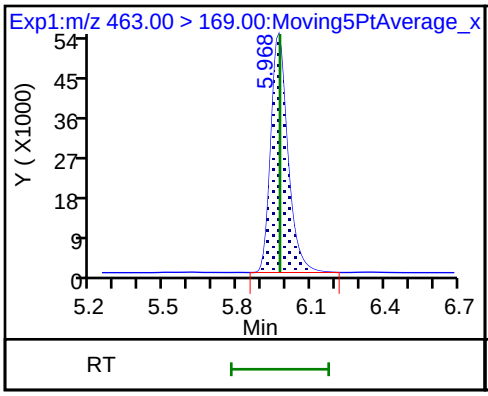
D 58 13C8 PFOS



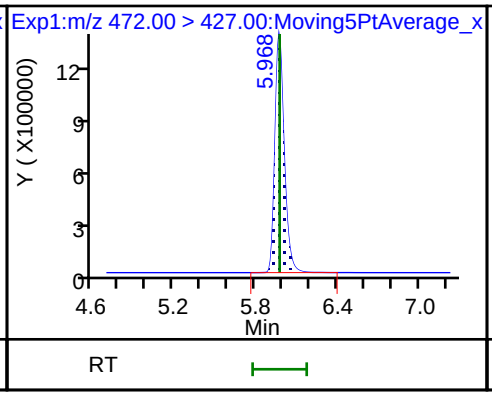
61 Perfluorononanoic acid



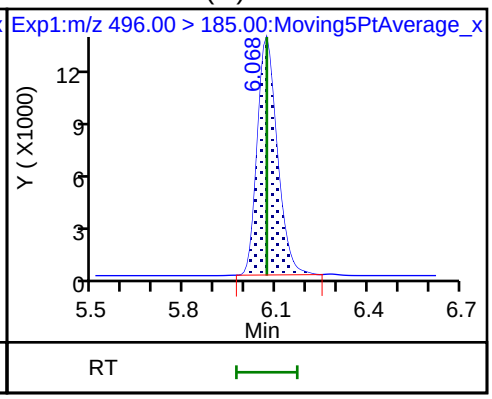
61 Perfluorononanoic acid



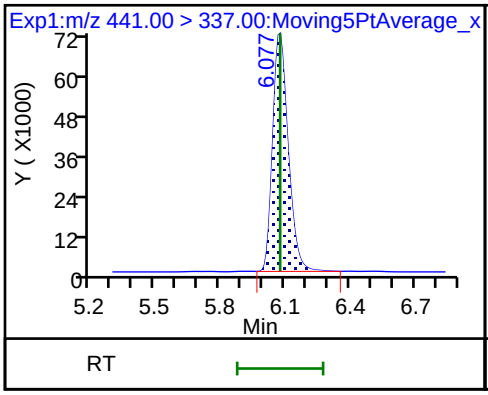
D 60 13C9 PFNA



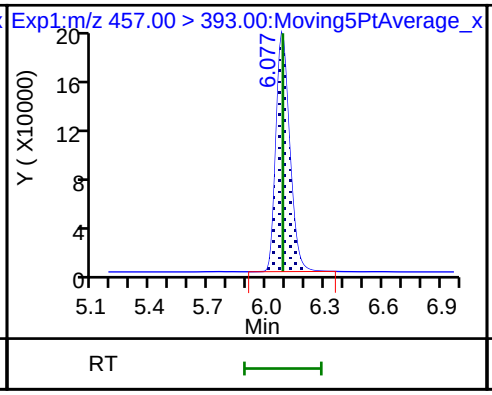
109 HFPO-TrA (M)



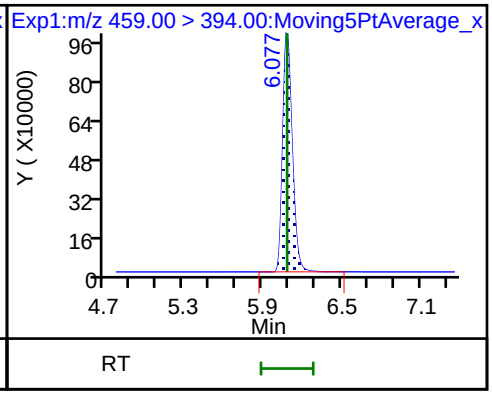
62 7:3 FTCA



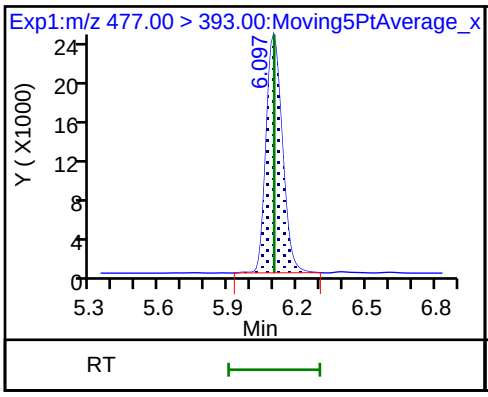
63 8:2 FTUCA



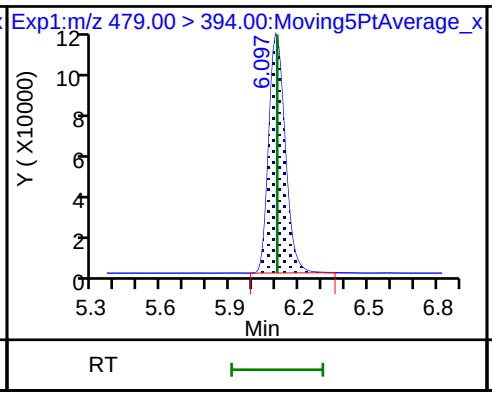
D 64 13C-8:2 FTUCA



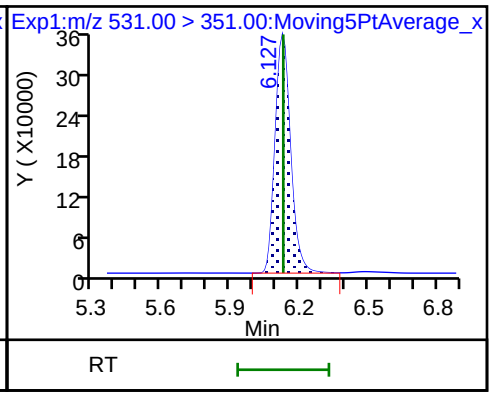
65 8:2 FTCA



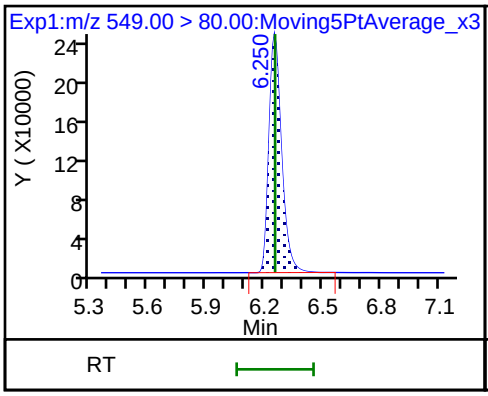
D 66 13C-8:2 FTCA



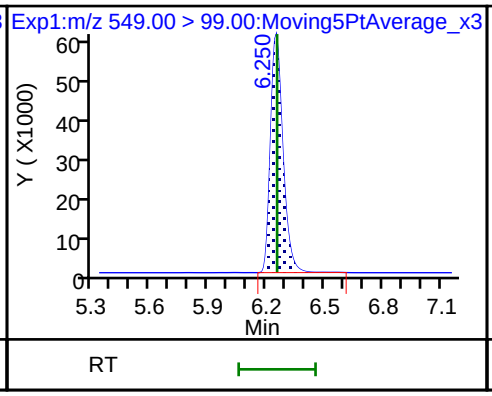
67 9ClFOS



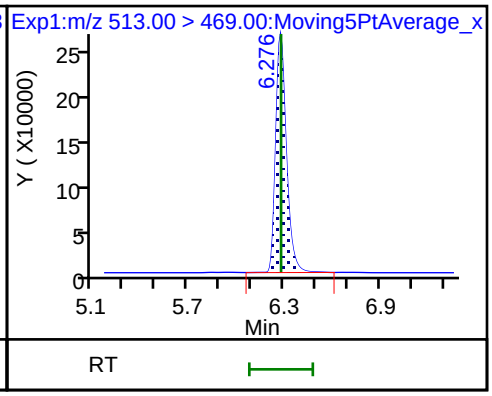
68 Perfluorononanesulfonic acid



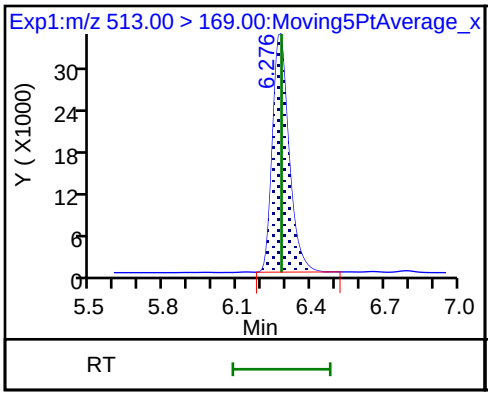
68 Perfluorononanesulfonic acid



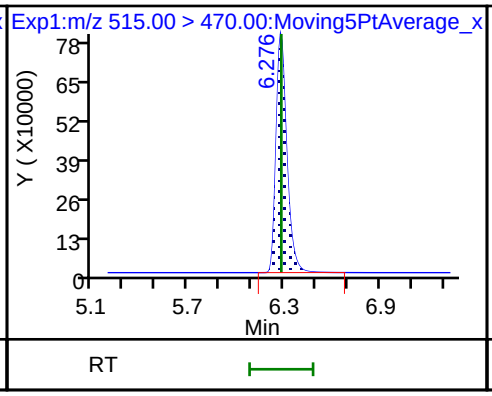
69 Perfluorodecanoic acid



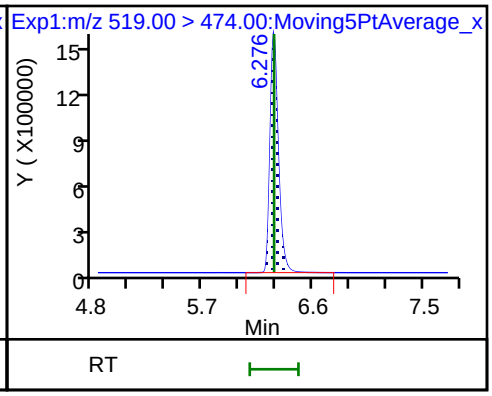
69 Perfluorodecanoic acid



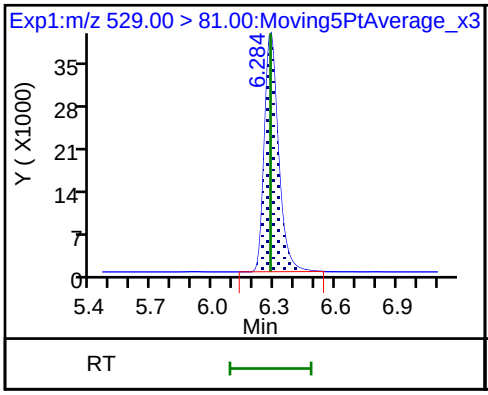
* 70 13C2 PFDA



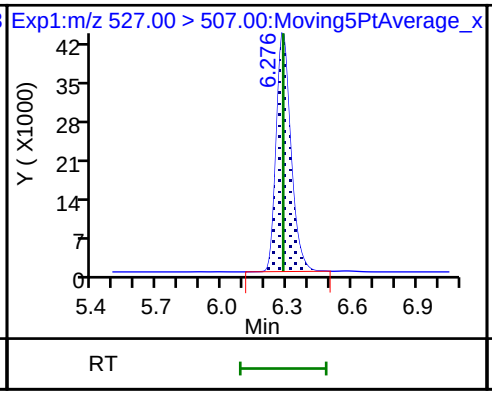
D 71 13C6 PFDA



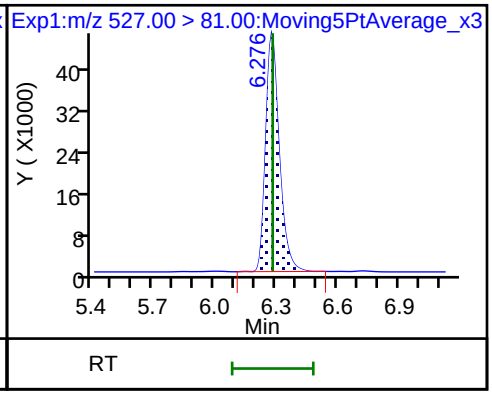
D 73 M2-8:2 FTS



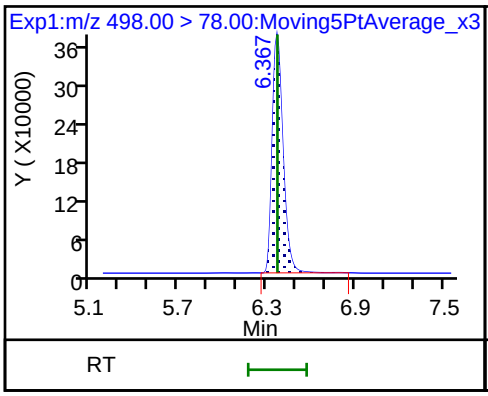
72 8:2 FTS



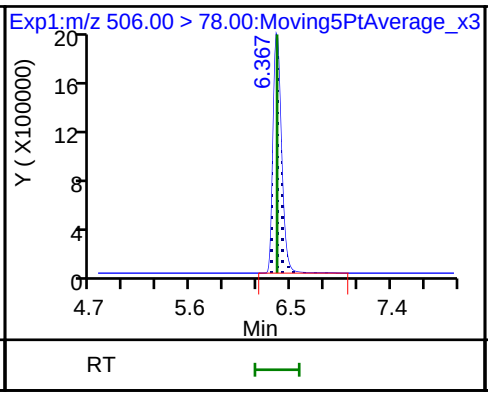
72 8:2 FTS



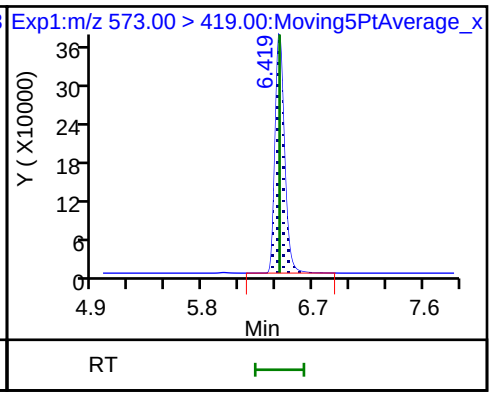
75 Perfluorooctanesulfonamide



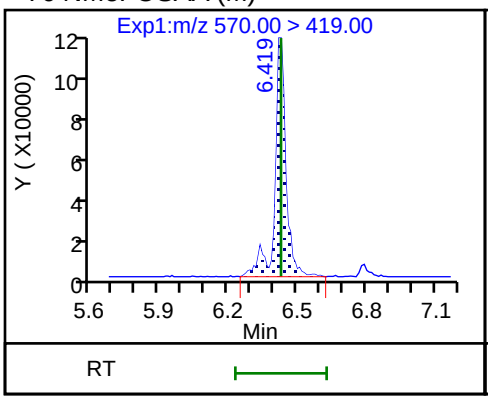
D 74 13C8 FOSA



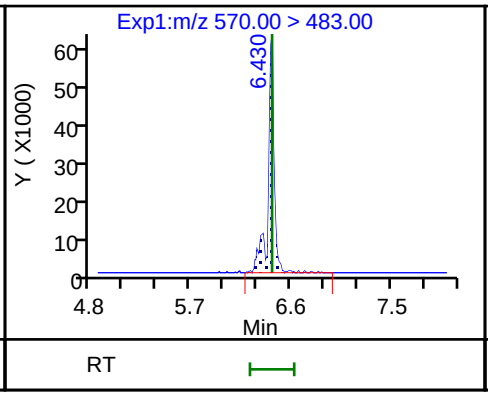
D 77 d3-NMeFOSAA



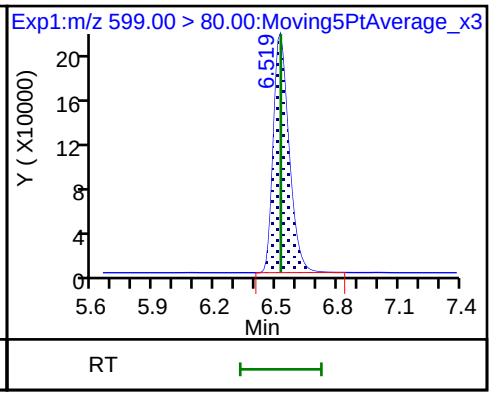
76 NMeFOSAA (M)



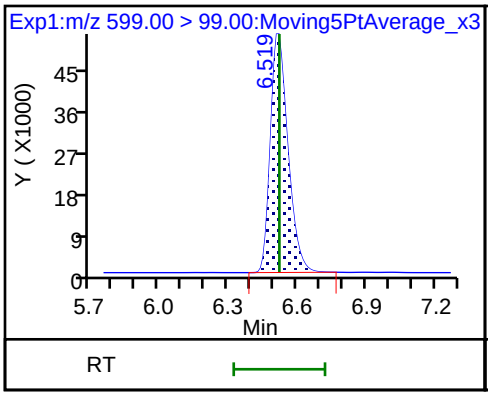
76 NMeFOSAA



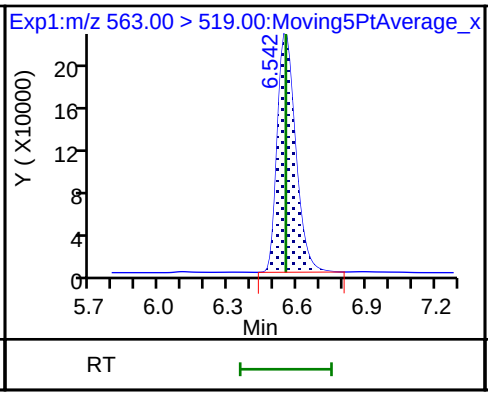
78 Perfluorodecanesulfonic acid



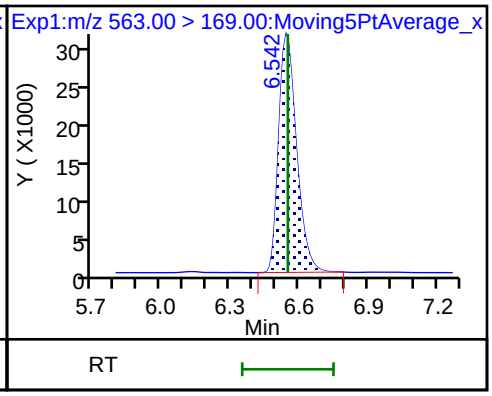
78 Perfluorodecanesulfonic acid



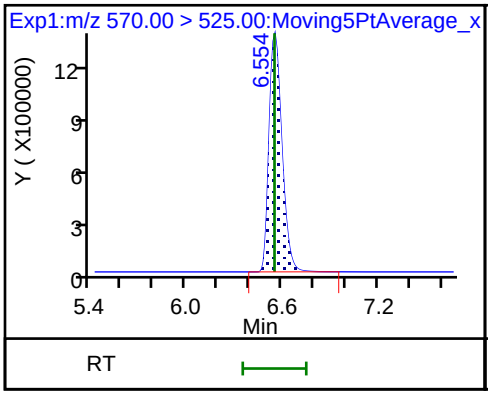
79 Perfluoroundecanoic acid



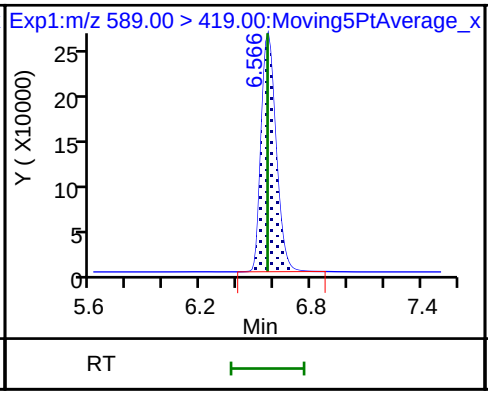
79 Perfluoroundecanoic acid



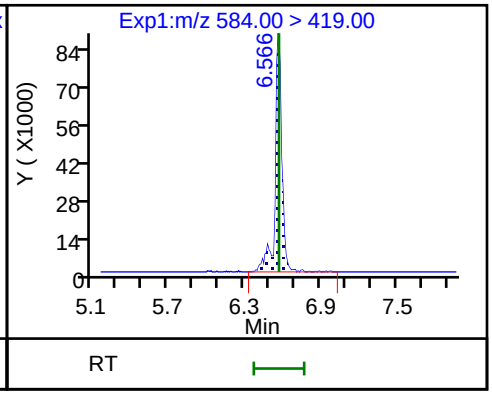
D 80 13C7 PFUnA



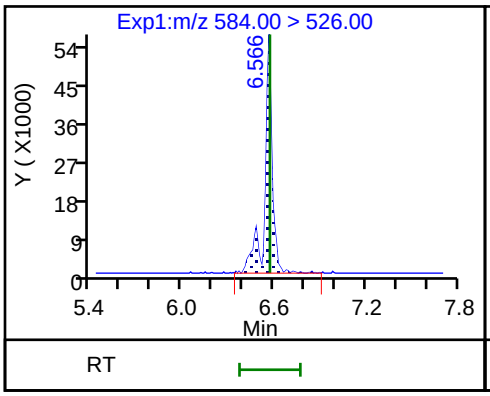
D 81 d5-NEtFOSAA



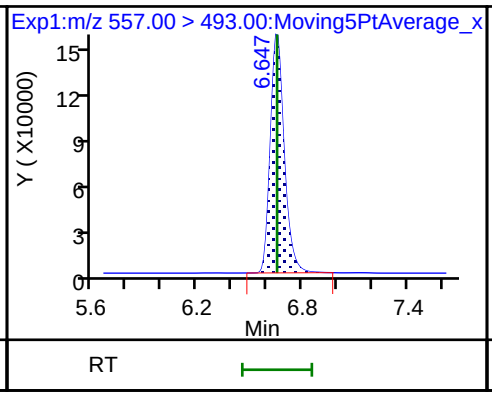
82 NEtFOSAA



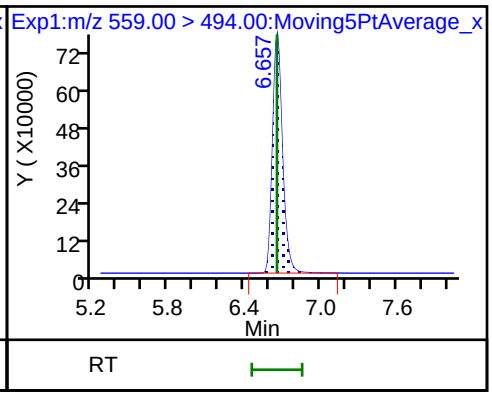
82 NEtFOSAA



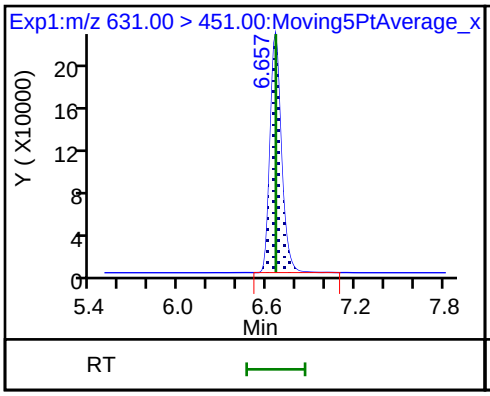
83 10:2 FTUCA



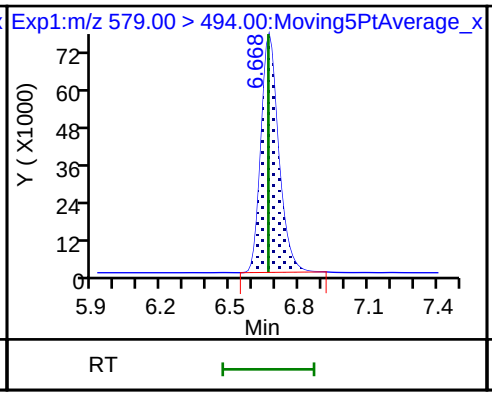
D 85 13C-10:2 FTUCA



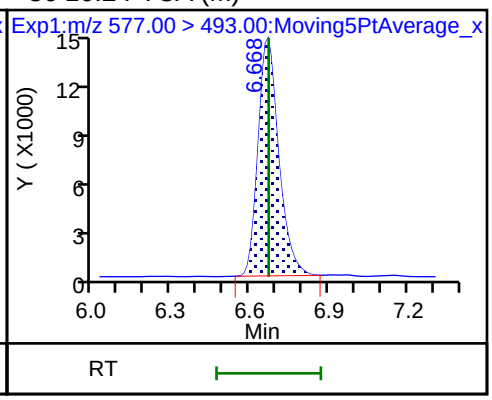
84 11ClFOS



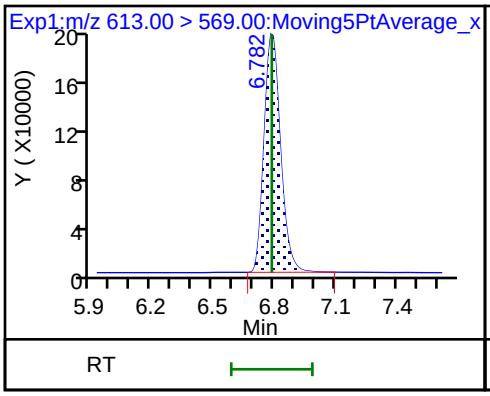
D 87 13C-10:2 FTCA



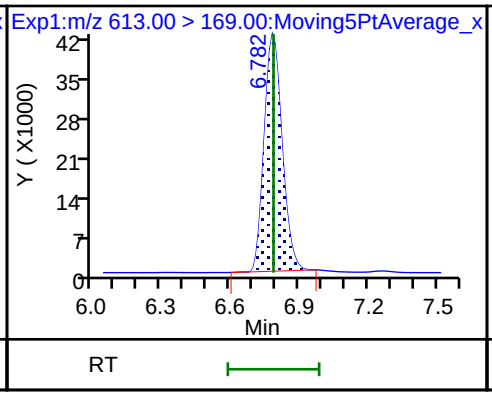
86 10:2 FTCA (M)



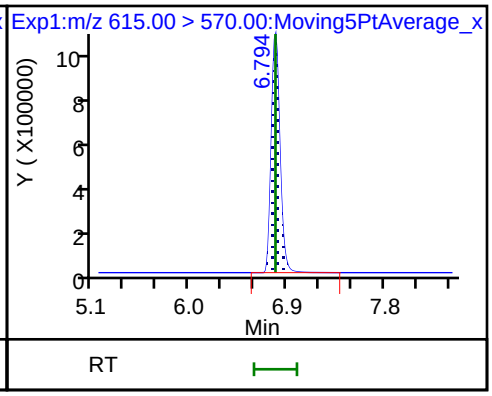
88 Perfluorododecanoic acid



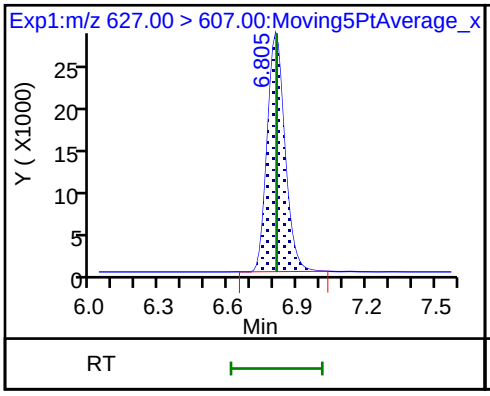
88 Perfluorododecanoic acid



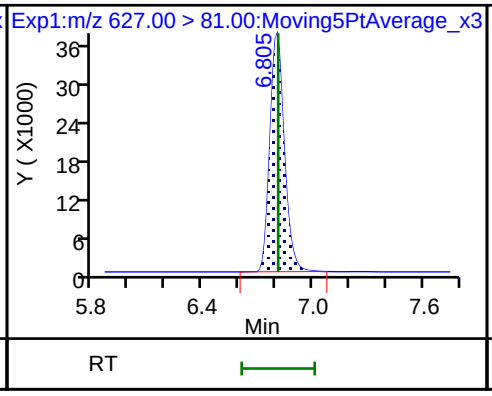
D 89 13C2-PFDoDA



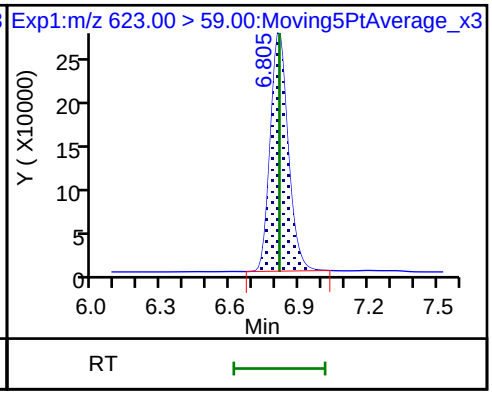
90 10:2 FTS



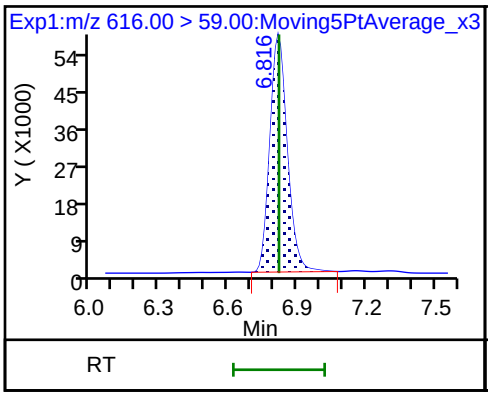
90 10:2 FTS



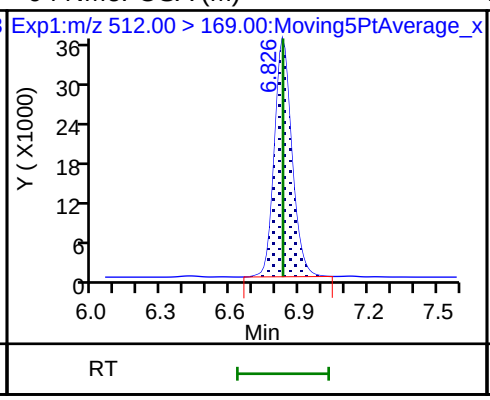
D 91 d7-N-MeFOSE-M



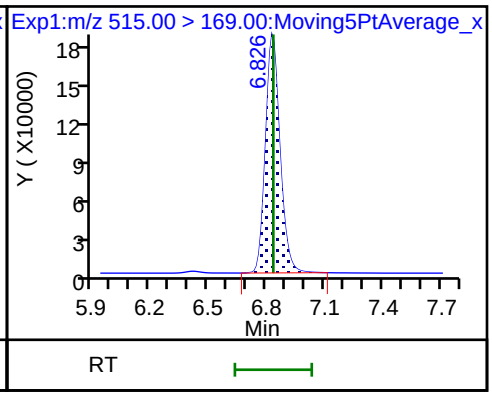
92 N-MeFOSE-M



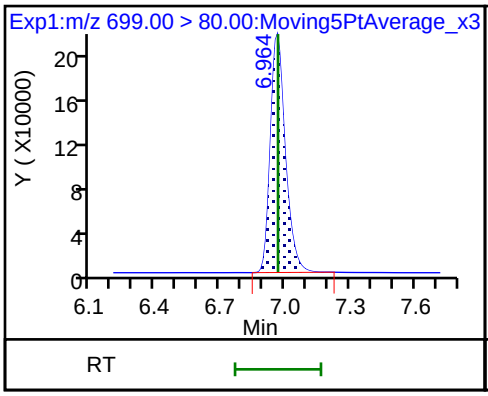
94 NMeFOSA (M)



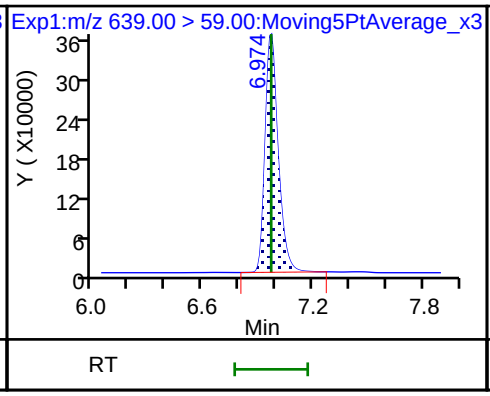
D 93 d3-NMePFOSA



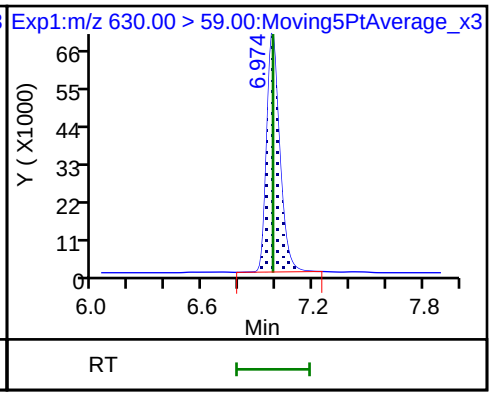
95 PFDoS



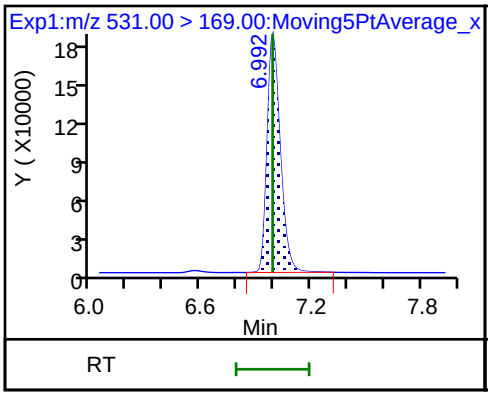
D 96 d9-N-EtFOSE-M



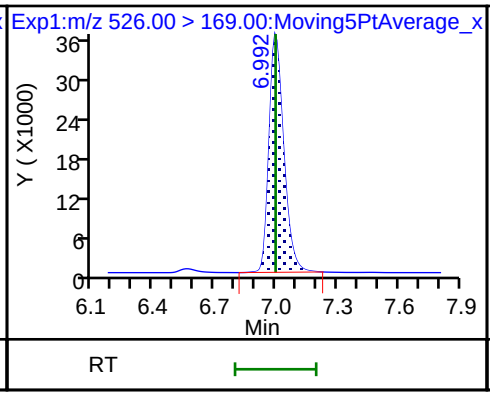
97 N-EtFOSE-M



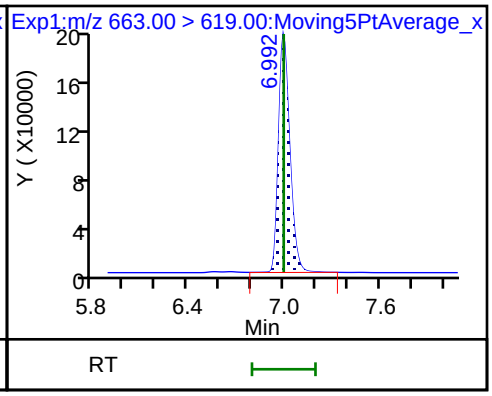
D 98 d5-NEtPFOSA



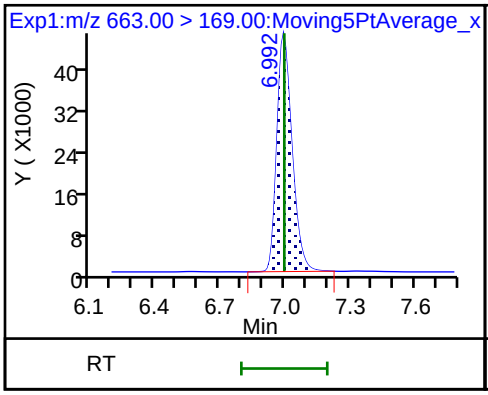
100 N-EtFOSA-M



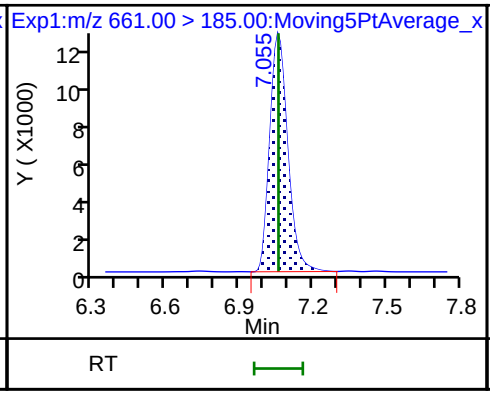
99 Perfluorotridecanoic acid



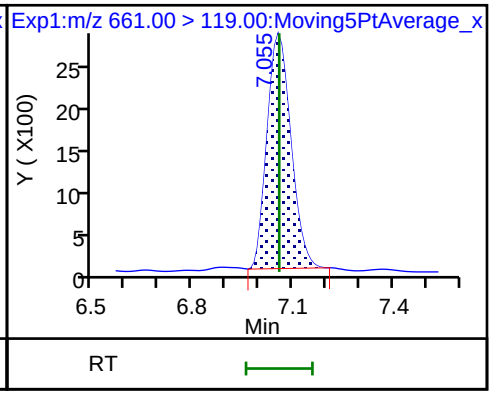
99 Perfluorotridecanoic acid



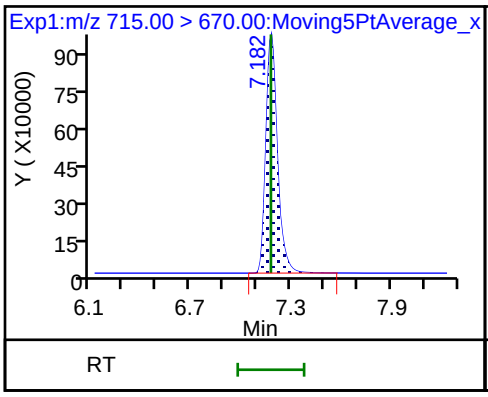
105 HFPOTeA



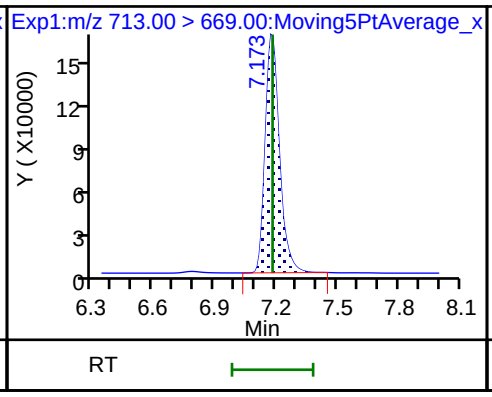
105 HFPOTeA



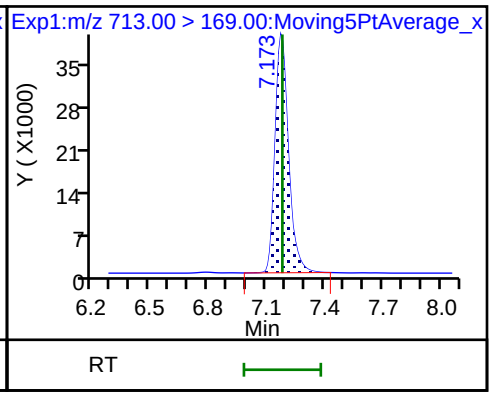
D 102 13C2 PFTeDA



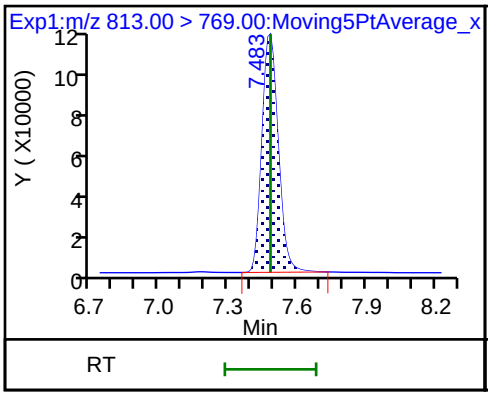
101 Perfluorotetradecanoic acid



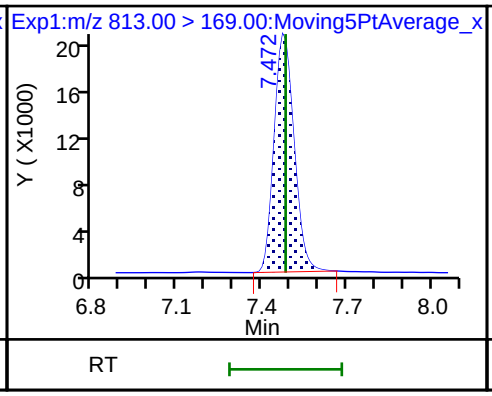
101 Perfluorotetradecanoic acid



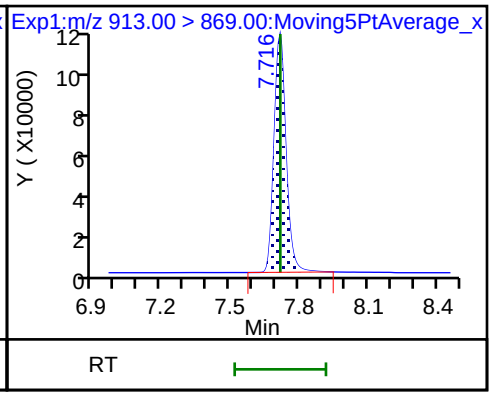
103 Perfluorohexadecanoic acid



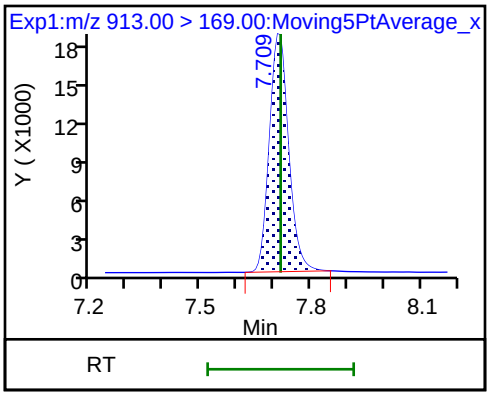
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

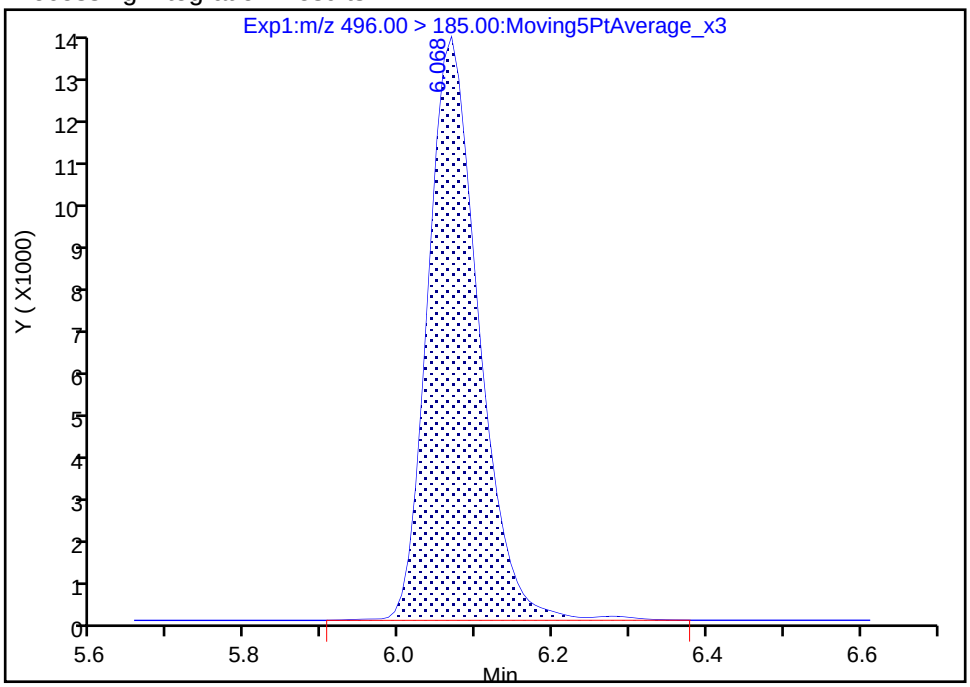
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-09.d				
Injection Date:	01-Mar-2022 22:44:05	Instrument ID:	30728		
Lims ID:	ICV				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20009	Worklist Smp#:	9
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

109 HFPO-TrA, CAS: 13252-14-7

Signal: 1

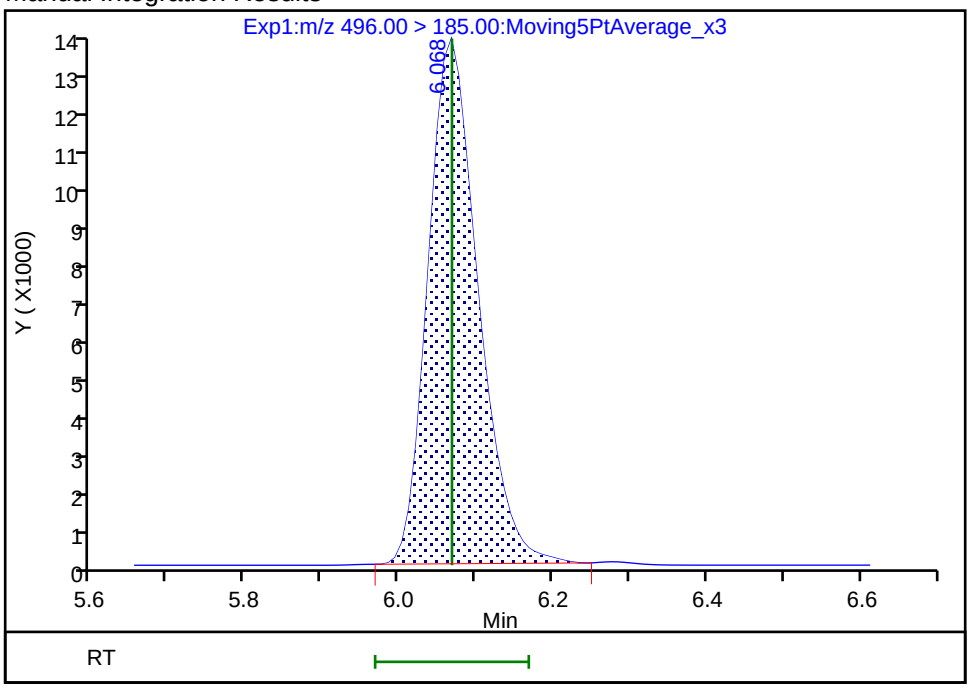
Processing Integration Results

RT: 6.07
Area: 62275
Amount: 20.134328
Amount Units: ng/ml



Manual Integration Results

RT: 6.07
Area: 61224
Amount: 20.359111
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:30:10

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

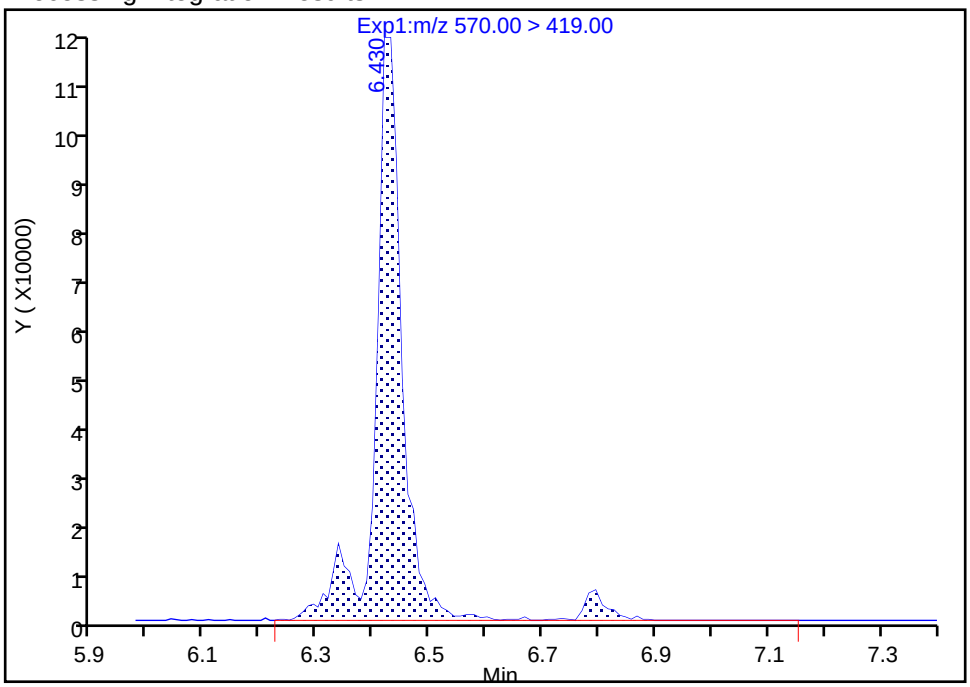
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-09.d				
Injection Date:	01-Mar-2022 22:44:05	Instrument ID:	30728		
Lims ID:	ICV				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20009	Worklist Smp#:	9
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

76 NMeFOSAA, CAS: 2355-31-9

Signal: 1

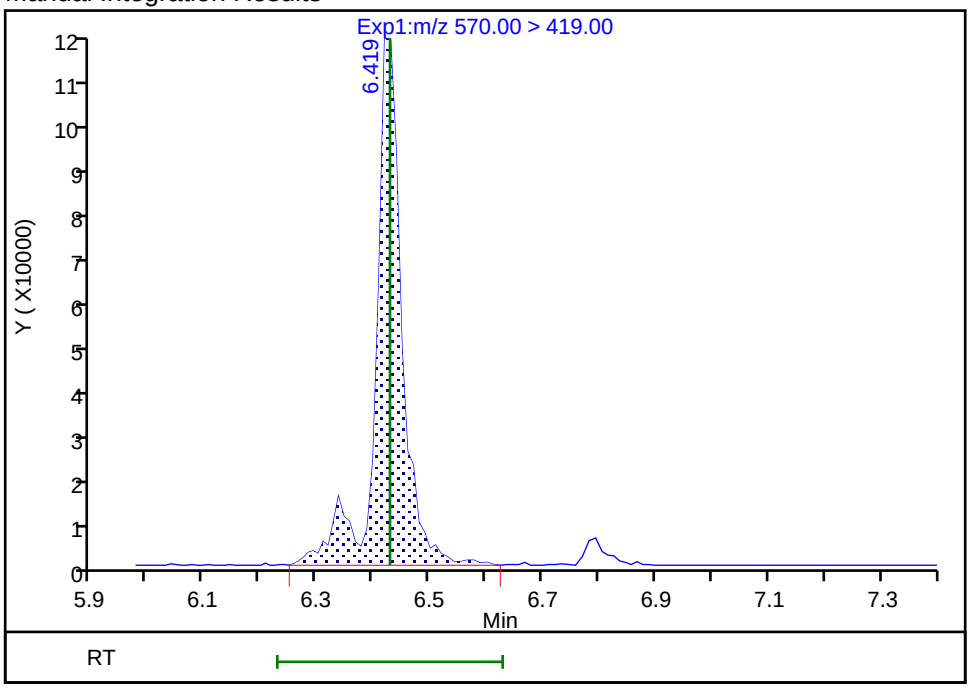
Processing Integration Results

RT: 6.43
Area: 378100
Amount: 2.158873
Amount Units: ng/ml



Manual Integration Results

RT: 6.42
Area: 361609
Amount: 2.064713
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:29:59

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

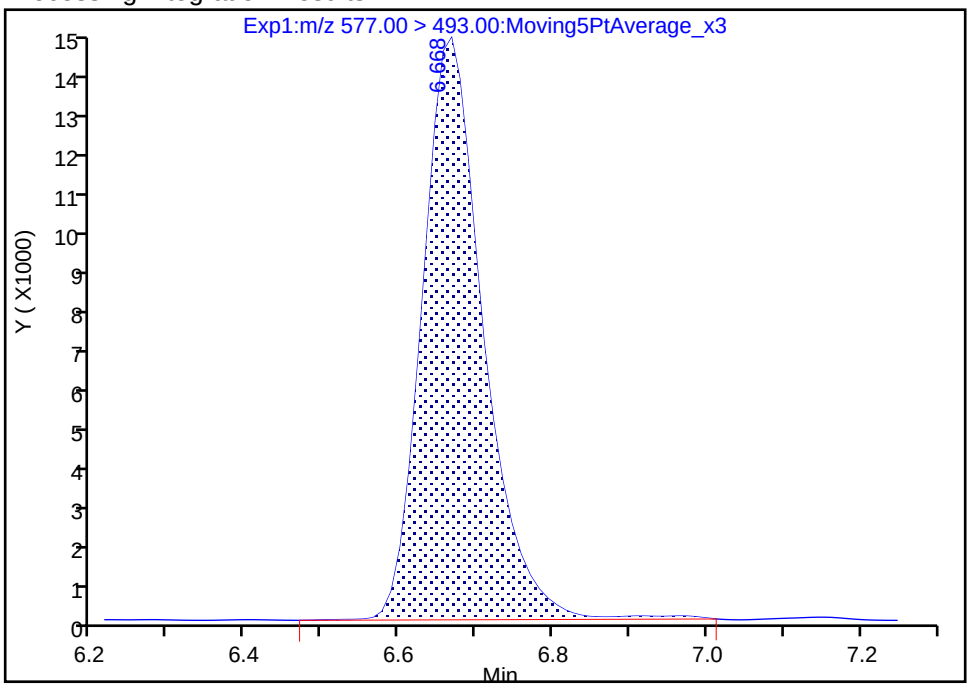
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-09.d				
Injection Date:	01-Mar-2022 22:44:05	Instrument ID:	30728		
Lims ID:	ICV				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20009	Worklist Smp#:	9
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

86 10:2 FTCA, CAS: 53826-13-4

Signal: 1

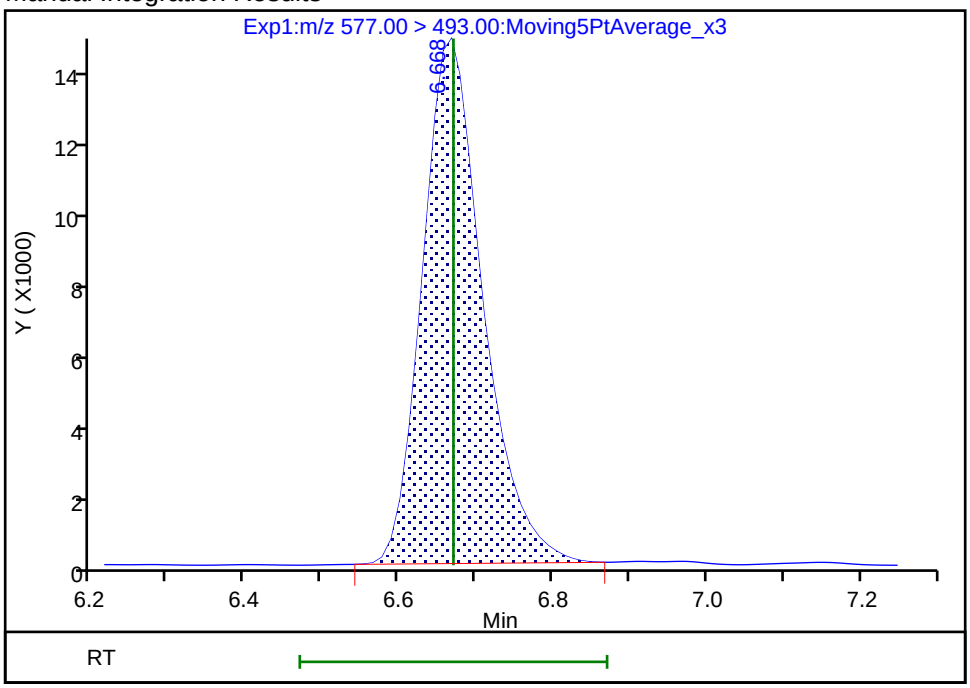
Processing Integration Results

RT: 6.67
Area: 77708
Amount: 1.934264
Amount Units: ng/ml



Manual Integration Results

RT: 6.67
Area: 76453
Amount: 1.903025
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:29:48

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

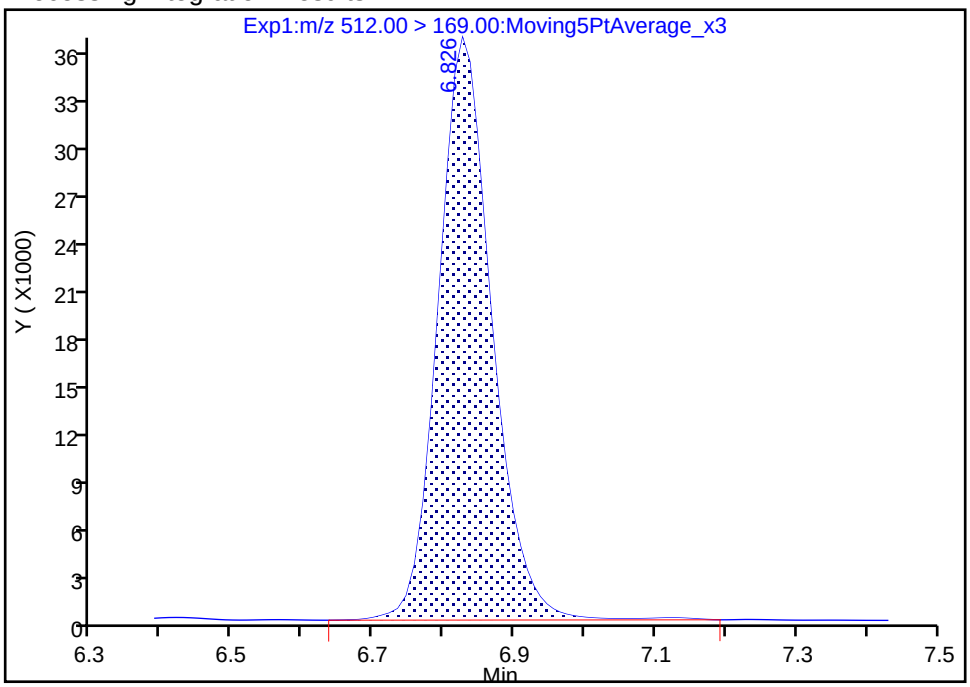
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-09.d				
Injection Date:	01-Mar-2022 22:44:05	Instrument ID:	30728		
Lims ID:	ICV				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20009	Worklist Smp#:	9
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

94 NMeFOSA, CAS: 31506-32-8

Signal: 1

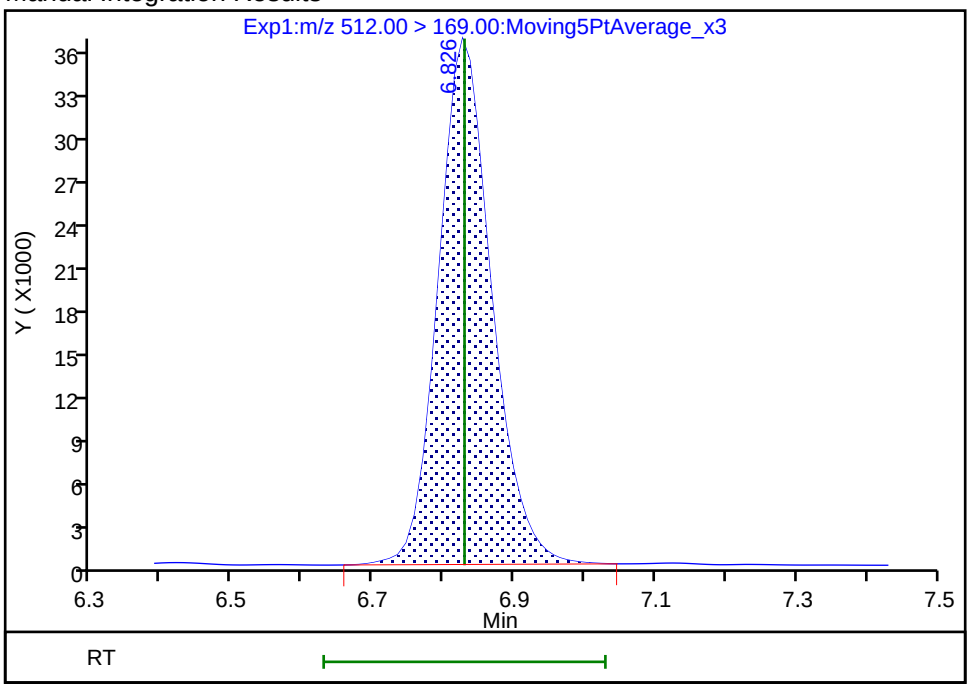
Processing Integration Results

RT: 6.83
Area: 193926
Amount: 2.021197
Amount Units: ng/ml



Manual Integration Results

RT: 6.83
Area: 192359
Amount: 2.004865
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:29:38

Audit Action: Manually Integrated Audit Reason: Shouldering

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-229099/3 Calibration Date: 03/02/2022 10:15

Instrument ID: 30728 Calib Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 03/01/2022 22:21

Lab File ID: 22MAR02-11.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Sodium trifluoromethanesulfonate	AveID	0.2668	0.3088		2.27	1.96	15.7	30.0
MTP	AveID	0.0968	0.0938		1.94	2.00	-3.0	30.0
PPF Acid	AveID	0.4686	0.4479		1.91	2.00	-4.4	30.0
PFMOAA	AveID	0.4002	0.3885		1.94	2.00	-2.9	30.0
R-PSDA	AveID	0.0405	0.0423		2.09	2.00	4.3	30.0
R-EVE	AveID	0.0911	0.1027		2.25	2.00	12.7	30.0
Hydrolyzed PSDA	AveID	0.1544	0.1675		2.17	2.00	8.5	30.0
Perfluorobutanoic acid	AveID	0.8610	0.8367		1.94	2.00	-2.8	30.0
PMPA	AveID	0.5107	0.5219		2.04	2.00	2.2	30.0
Perfluoropropanesulfonic acid	AveID	0.2297	0.2274		1.81	1.83	-1.0	30.0
NVHOS	AveID	0.2689	0.2620		1.95	2.00	-2.6	30.0
PFECA F	AveID	0.9487	0.9793		2.06	2.00	3.2	30.0
PFO2HxA	AveID	0.3764	0.3502		1.86	2.00	-7.0	30.0
3:3 FTCA	AveID	0.0790	0.0744		1.88	2.00	-5.8	30.0
Perfluoropentanoic acid	AveID	1.161	1.153		1.99	2.00	-0.7	30.0
Perfluorobutanesulfonic acid	AveID	0.9673	0.9479		1.73	1.77	-2.0	30.0
PEPA	AveID	0.1783	0.1813		2.03	2.00	1.7	30.0
PFECA A	AveID	1.018	0.9073		1.78	2.00	-10.9	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	2.860	2.813		1.75	1.78	-1.6	30.0
PFECA B	AveID	1.569	1.434		1.83	2.00	-8.6	30.0
FBSA	AveID	0.0494	0.0480		1.94	2.00	-2.8	30.0
4:2 Fluorotelomer sulfonic acid	AveID	2.650	2.433		1.71	1.87	-8.2	30.0
Perfluorohexanoic acid	AveID	0.7751	0.7593		1.96	2.00	-2.0	30.0
Perfluoropentanesulfonic acid	AveID	0.9194	0.9054		1.85	1.88	-1.5	30.0
PFO3OA	AveID	0.4631	0.4500		1.94	2.00	-2.8	30.0
HFPODA	AveID	1.235	1.210		1.96	2.00	-2.0	30.0
Hydro-EVE Acid	AveID	1.375	1.379		2.01	2.00	0.3	30.0
FBSEE	AveID	0.0530	0.0510		1.92	2.00	-3.8	30.0
R-PSDCA	AveID	2.464	2.401		1.95	2.00	-2.6	30.0
Perfluoroheptanoic acid	AveID	0.9162	0.9456		2.06	2.00	3.2	30.0
Perfluorohexanesulfonic acid	AveID	0.9702	1.006		1.89	1.82	3.7	30.0
Hydro-PS Acid	AveID	1.672	1.601		1.91	2.00	-4.3	30.0
DONA	AveID	1.157	1.147		1.87	1.89	-0.9	30.0
PFECA G	AveID	1.613	1.566		1.94	2.00	-3.0	30.0
5:3 FTCA	AveID	0.1711	0.1607		1.88	2.00	-6.1	30.0
6:2 FTUCA	AveID	1.239	1.303		2.10	2.00	5.1	30.0
6:2 FTCA	AveID	1.034	1.135		2.20	2.00	9.8	30.0
PFO4DA	AveID	0.5638	0.5595		1.98	2.00	-0.8	30.0
PS Acid	AveID	0.5935	0.6128		2.07	2.00	3.3	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-229099/3 Calibration Date: 03/02/2022 10:15

Instrument ID: 30728 Calib Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 03/01/2022 22:21

Lab File ID: 22MAR02-11.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
EVE Acid	AveID	1.414	1.493		2.11	2.00	5.6	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.306	1.310		1.85	1.85	0.3	30.0
6:2 Fluorotelomer sulfonic acid	AveID	3.641	3.853		2.01	1.90	5.8	30.0
Perfluoroheptanesulfonic acid	AveID	0.9614	0.9505		1.88	1.90	-1.1	30.0
Perfluorooctanoic acid	AveID	0.7464	0.7481		2.00	2.00	0.2	30.0
FHxSA	AveID	0.0638	0.0670		2.10	2.00	5.1	30.0
TAF	AveID	0.5334	0.5222		1.96	2.00	-2.1	30.0
Perfluorooctanesulfonic acid	AveID	0.9774	0.9881		1.87	1.85	1.1	30.0
Perfluorononanoic acid	AveID	0.8711	0.8337		1.91	2.00	-4.3	30.0
HFPO-TrA	AveID	0.0151	0.0177		23.3	20.0	16.6	30.0
7:3 FTCA	AveID	2.428	2.777		2.29	2.00	14.4	30.0
8:2 FTUCA	AveID	0.9431	1.014		2.15	2.00	7.5	30.0
8:2 FTCA	AveID	0.998	1.050		2.10	2.00	5.2	30.0
9Cl-PF3ONS	AveID	1.406	1.469		1.94	1.86	4.5	30.0
Perfluorononanesulfonic acid	AveID	0.9688	0.9414		1.87	1.92	-2.8	30.0
Perfluorodecanoic acid	AveID	0.8410	0.8162		1.94	2.00	-3.0	30.0
8:2 Fluorotelomer sulfonic acid	AveID	5.686	5.271		1.78	1.92	-7.3	30.0
Perfluorooctanesulfonamide	AveID	0.9919	1.042		2.10	2.00	5.1	30.0
NMeFOSAA	AveID	0.8820	0.8325		1.89	2.00	-5.6	30.0
Perfluorodecanesulfonic acid	AveID	0.9543	0.9448		1.91	1.93	-1.0	30.0
Perfluoroundecanoic acid	AveID	0.7448	0.7708		2.07	2.00	3.5	30.0
NEtFOSAA	AveID	0.9602	0.9581		2.00	2.00	-0.2	30.0
10:2 FTUCA	AveID	0.9614	0.9690		2.02	2.00	0.8	30.0
11Cl-PF3OUdS	AveID	1.038	0.9863		1.77	1.86	-4.9	30.0
10:2 FTCA	AveID	0.9726	1.040		2.14	2.00	7.0	30.0
Perfluorododecanoic acid	AveID	0.9122	0.9737		2.13	2.00	6.7	30.0
10:2 FTS	AveID	4.224	4.038		1.84	1.93	-4.4	30.0
NMeFOSE	AveID	1.015	1.025		2.02	2.00	1.0	30.0
NMeFOSA	AveID	0.9755	1.001		2.05	2.00	2.6	30.0
Perfluorododecanesulfonic acid	AveID	0.8525	0.8609		1.96	1.94	1.0	30.0
NEtFOSE	AveID	1.006	0.9824		1.95	2.00	-2.4	30.0
NEtFOSA	AveID	1.045	1.026		1.96	2.00	-1.9	30.0
Perfluorotridecanoic acid	AveID	0.7915	0.8245		2.08	2.00	4.2	30.0
HFPO-TeA	AveID	0.0162	0.0162		19.8	19.8	0.0	30.0
Perfluorotetradecanoic acid	AveID	0.8830	0.9273		2.10	2.00	5.0	30.0
Perfluorohexadecanoic acid	AveID	0.5823	0.5754		1.98	2.00	-1.2	30.0
Perfluorooctadecanoic acid	AveID	0.4186	0.4266		2.04	2.00	1.9	30.0
13C4 PFBA	Ave	1.081	1.077		9.97	10.0	-0.3	30.0
13C5 PFPeA	Ave	0.8754	0.8957		10.2	10.0	2.3	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-229099/3 Calibration Date: 03/02/2022 10:15

Instrument ID: 30728 Calib Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 03/01/2022 22:21

Lab File ID: 22MAR02-11.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C3 PFBS	Ave	0.8850	0.9335		9.81	9.30	5.5	30.0
M2-4:2 FTS	Ave	0.1411	0.1731		11.5	9.34	22.7	30.0
13C5 PFHxA	Ave	1.160	1.204		10.4	10.0	3.8	30.0
13C3 HFPO-DA	Ave	0.2724	0.2748		10.1	10.0	0.9	30.0
13C3 PFHxS	Ave	0.8246	0.8564		9.83	9.46	3.9	30.0
13C4 PFHpA	Ave	1.250	1.341		10.7	10.0	7.2	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	0.6822	0.7062		10.4	10.0	3.5	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.1074	0.1031		9.60	10.0	-4.0	30.0
M2-6:2 FTS	Ave	0.0505	0.0525		9.88	9.50	4.0	30.0
13C8 PFOA	Ave	1.224	1.302		10.6	10.0	6.4	30.0
13C8 PFOS	Ave	0.9689	0.9690		9.56	9.56	0.0	30.0
13C9 PFNA	Ave	0.9487	0.9654		10.2	10.0	1.8	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	0.6098	0.5679		9.31	10.0	-6.9	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.0686	0.0605		8.82	10.0	-11.8	30.0
13C6 PFDA	Ave	0.9544	0.9259		9.70	10.0	-3.0	30.0
M2-8:2 FTS	Ave	0.0248	0.0264		10.2	9.58	6.5	30.0
13C8 FOSA	Ave	1.232	1.189		9.65	10.0	-3.5	30.0
d3-NMeFOSAA	Ave	0.2683	0.2581		9.62	10.0	-3.8	30.0
13C7 PFUnA	Ave	1.010	0.9486		9.39	10.0	-6.1	30.0
d5-NEtFOSAA	Ave	0.1916	0.1861		9.72	10.0	-2.8	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.5368	0.5047		9.40	10.0	-6.0	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0499	0.0444		8.88	10.0	-11.2	30.0
13C2-PFDoDA	Ave	0.7697	0.7319		9.51	10.0	-4.9	30.0
d7-N-MeFOSE-M	Ave	0.2005	0.1803		8.99	10.0	-10.1	30.0
d3-NMePFOSA	Ave	0.1275	0.1129		8.86	10.0	-11.4	30.0
d9-N-EtFOSE-M	Ave	0.2271	0.2147		9.45	10.0	-5.5	30.0
d5-NEtPFOSA	Ave	0.1185	0.1080		9.12	10.0	-8.8	30.0
13C2 PFTeDA	Ave	0.6192	0.5526		8.92	10.0	-10.8	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-11.d
Lims ID: CCV 2_CAL3
Client ID:
Sample Type: CCV
Inject. Date: 02-Mar-2022 10:15:52 ALS Bottle#: 20004 Worklist Smp#: 3
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: CCV 2_CAL3
Misc. Info.: Plate: 1 Rack: 1 410-0051478-003
Operator ID: US19_USR_INS20261 Instrument ID: 30728
Sublist: chrom-PFAS_30728_XList*sub16

Method: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 12:13:37 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1679

First Level Reviewer: glicka Date: 02-Mar-2022 10:33:09
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.065	1.065	0.0	0.279	376639	2.27		116	3866	
1 MTP										
175.00 > 97.00	1.527	1.518	0.009	0.399	116791	1.94		97.0	3594	
2 PPF Acid										
163.00 > 119.00	1.887	1.874	0.013	0.494	557533	1.91		95.6	1543	
3 PFMOAA										
179.00 > 85.00	2.903	2.891	0.012	0.759	483564	1.94		97.1	4062	
4 R-PSDA										
441.00 > 241.00	3.795	3.792	0.003	0.850	45600	2.09		104	2568	
5 R-EVE										
405.00 > 217.00	3.802	3.793	0.009	0.995	127798	2.25		113	9606	
D 6 13C4 PFBA										
217.00 > 172.00	3.822	3.816	0.006	1.000	6223262	9.97		99.7	160349	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.822	3.816	0.006	1.000	1041415	1.94		97.2	3604	
* 8 13C3-PFBA										
216.00 > 172.00	3.822	3.817	0.005		2888903	5.00			7102	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.816	3.817	-0.001	0.855	180723	2.17		108	9018	
10 PMPA										
229.00 > 185.00	3.963	3.956	0.007	1.037	649564	2.04		102	8790	
11 PFPrS										
249.00 > 99.00	4.026	4.020	0.006	1.053	259282	1.81		99.0	17540	
12 NVHOS										
297.00 > 135.00	4.065	4.060	0.005	0.911	282600	1.95		97.4	14135	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 PFECA F										
229.00 > 85.00	4.084	4.082	0.002	1.068	1218834	2.06		103	17629	
14 PFO2HxA										
245.00 > 85.00	4.291	4.286	0.005	1.123	435857	1.86		93.0	20270	
15 3:3 FTCA										
241.00 > 177.00	4.407	4.403	0.004	1.000	77047	1.88		94.2	4689	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.407	4.404	0.003	1.000	1193521	1.99		99.3	6439	
D 17 13C5 PFPeA										
268.00 > 223.00	4.407	4.404	0.003	1.153	5175345	10.2		102	122055	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.464	4.460	0.004	1.000	904957	1.73	Target=3.14	98.0	19007	
299.00 > 99.00	4.464	4.460	0.004	1.000	290573		3.11(1.57-4.71)		12207	
D 19 13C3 PFBS										
302.00 > 80.00	4.464	4.462	0.002	1.168	5016001	9.81		105	264737	
20 PEPA										
279.00 > 235.00	4.519	4.517	0.002	1.182	225710	2.03		102	4567	
21 PFECA A										
279.00 > 85.00	4.548	4.543	0.005	1.019	978702	1.78		89.1	39703	
22 PES										
315.00 > 135.00	4.639	4.638	0.001	1.039	2701016	1.75		98.4	118629	
23 PFECA B										
201.00 > 85.00	4.770	4.771	-0.001	1.069	1546380	1.83	Target=1.81	91.4	44572	
295.00 > 201.00	4.770	4.771	-0.001	1.069	877025		1.76(0.90-2.71)		44743	
110 FBSA										
299.00 > 78.00	4.790	4.792	-0.002	1.073	51781	1.94		97.2	3441	
24 4:2 FTS										
327.00 > 307.00	4.809	4.803	0.006	1.000	445566	1.71	Target=1.33	91.8	30058	
327.00 > 81.00	4.809	4.803	0.006	1.000	340649		1.31(0.66-1.99)		13664	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.809	4.806	0.003	0.853	915719	11.5		123	37523	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.849	4.843	0.006	1.000	1035702	1.96	Target=12.64	98.0	14485	
313.00 > 119.00	4.849	4.843	0.006	1.000	73604		14.07(6.32-18.96)		2919	
D 27 13C5 PFHxA										
318.00 > 273.00	4.849	4.846	0.003	0.860	6820224	10.4		104	268031	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.869	4.863	0.006	1.091	916068	1.85	Target=3.66	98.5	59588	
349.00 > 99.00	4.869	4.863	0.006	1.091	237613		3.86(1.83-5.49)		15588	
29 PFO3OA										
311.00 > 85.00	4.909	4.903	0.006	1.284	560068	1.94		97.2	36624	
30 HFPO-DA										
329.00 > 285.00	4.981	4.978	0.003	0.998	376619	1.96		98.0	8411	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.991	4.983	0.008	0.885	1556395	10.1		101	102696	
32 Hydro-EVE Acid										
427.00 > 283.00	5.202	5.201	0.001	1.361	1716471	2.01		100	346567	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
33 R-PSDCA										
397.00 > 217.00	5.213	5.209	0.004	1.168	2590057	1.95		97.4	95599	
108 FBSEE										
386.00 > 166.00	5.213	5.220	-0.007	1.168	55001	1.92	Target=1.76	96.2	3379	
386.00 > 80.00	5.213	5.220	-0.007	1.168	31372		1.75(0.88-2.64)		1875	
34 Hydro-PS Acid										
463.00 > 263.00	5.267	5.246	0.021	1.180	1727217	1.91		95.7	156900	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.256	5.254	0.002	1.000	889978	1.89	Target=3.57	104	1921	
399.00 > 99.00	5.256	5.254	0.002	1.000	236128		3.77(1.78-5.35)		570	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.256	5.254	0.002	1.000	1435902	2.06	Target=3.54	103	29279	
363.00 > 169.00	5.256	5.254	0.002	1.000	395130		3.63(1.77-5.31)		18324	
D 37 13C3 PFHxS										
402.00 > 80.00	5.256	5.254	0.002	0.932	4588812	9.83		104	283309	
D 38 13C4 PFHpA										
367.00 > 322.00	5.256	5.255	0.001	0.932	7592881	10.7		107	350581	
39 DONA										
377.00 > 251.00	5.310	5.303	0.007	1.010	1645917	1.87		99.1	44731	
40 PFECA G										
379.00 > 185.00	5.331	5.322	0.009	1.395	1948563	1.94		97.0	74133	
41 5:3 FTCA										
341.00 > 237.00	5.341	5.338	0.003	1.016	243975	1.88	Target=3.04	93.9	9651	
341.00 > 217.00	5.341	5.338	0.003	1.016	81965		2.98(1.52-4.55)		5373	
42 6:2 FTUCA										
357.00 > 293.00	5.360	5.359	0.001	1.000	1042007	2.10		105	42363	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.360	5.361	-0.001	0.951	3999828	10.4		104	116339	
44 6:2 FTCA										
377.00 > 293.00	5.378	5.378	0.0	0.998	132553	2.20		110	6860	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.386	5.379	0.007	0.955	583853	9.60		96.0	30223	
46 PFO4DA										
377.00 > 85.00	5.437	5.435	0.002	1.422	696378	1.98		99.2	1096	
47 PS Acid										
443.00 > 147.00	5.480	5.479	0.001	1.228	661075	2.07		103	46567	
48 EVE Acid										
407.00 > 263.00	5.508	5.500	0.008	1.441	1858323	2.11		106	97309	
49 PFECHS										
461.00 > 381.00	5.576	5.569	0.007	1.061	1174307	1.85	Target=1.56	100	81798	
461.00 > 99.00	5.576	5.569	0.007	1.061	735578		1.60(0.78-2.34)		38577	
50 6:2 FTS										
427.00 > 407.00	5.620	5.613	0.007	1.000	217130	2.01	Target=1.19	106	14498	
427.00 > 81.00	5.620	5.613	0.007	1.000	181301		1.20(0.60-1.79)		12291	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.620	5.614	0.006	0.997	282392	9.88		104	19002	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.620	5.618	0.002	1.069	877897	1.88	Target=3.73	98.9	60362	
449.00 > 99.00	5.620	5.618	0.002	1.069	237637		3.69(1.87-5.60)		16649	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.638	5.630	0.008	1.000	1103708	2.00	Target=2.20	100	103716	
413.00 > 169.00	5.628	5.630	-0.002	0.998	467361		2.36(1.10-3.30)		87111	
D 54 13C8 PFOA										
421.00 > 376.00	5.638	5.631	0.007	1.000	7376342	10.6		106	374191	
* 55 13C2 PFOA										
415.00 > 370.00	5.638	5.631	0.007		2832007	5.00			144035	
106 FHxSA										
399.00 > 78.00	5.687	5.692	-0.005	1.082	65027	2.10		105	4282	
56 TAF										
443.00 > 85.00	5.889	5.879	0.010	1.541	650006	1.96		97.9	22503	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.962	5.954	0.008	1.000	947182	1.87	Target=4.38	101	1104	
499.00 > 99.00	5.953	5.954	-0.001	0.999	192693		4.92(2.19-6.58)		353	
* 59 13C4 PFOS										
503.00 > 80.00	5.962	5.955	0.007		2555936	4.78			136278	
D 58 13C8 PFOS										
507.00 > 80.00	5.962	5.955	0.007	1.000	4951056	9.56		100	69932	
61 Perfluorononanoic acid										
463.00 > 419.00	5.979	5.973	0.006	1.000	860324	1.91	Target=3.95	95.7	18107	
463.00 > 169.00	5.979	5.973	0.006	1.000	228634		3.76(1.97-5.92)		11899	
D 60 13C9 PFNA										
472.00 > 427.00	5.979	5.975	0.004	1.003	5159449	10.2		102	361986	
109 HFPO-TrA										
496.00 > 185.00	6.079	6.068	0.011	1.218	54978	23.3		117	3667	
62 7:3 FTCA										
441.00 > 337.00	6.089	6.077	0.012	1.130	324290	2.29		114	16409	
63 8:2 FTUCA										
457.00 > 393.00	6.089	6.084	0.005	0.998	803650	2.15		107	32504	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.099	6.085	0.014	0.969	3963486	9.31		93.1	159828	
65 8:2 FTCA										
477.00 > 393.00	6.109	6.099	0.010	1.000	88734	2.10		105	5913	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.109	6.102	0.007	0.970	422484	8.82		88.2	28624	
67 9ClFOS										
531.00 > 351.00	6.138	6.130	0.008	1.030	1414618	1.94		104	16211	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.261	6.254	0.007	1.050	936129	1.87	Target=4.33	97.2	67819	
549.00 > 99.00	6.261	6.254	0.007	1.050	208733		4.48(2.16-6.49)		15541	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.286	6.279	0.007	0.999	1054783	1.94	Target=7.98	97.0	22831	
513.00 > 169.00	6.286	6.279	0.007	0.999	124939		8.44(3.99-11.97)		6702	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 71 13C6 PFDA										
519.00 > 474.00	6.295	6.282	0.013	1.000	6461870	9.70		97.0	456510	
* 70 13C2 PFDA										
515.00 > 470.00	6.295	6.282	0.013		3489579	5.00			248358	
72 8:2 FTS										
527.00 > 507.00	6.295	6.282	0.013	1.000	185733	1.78	Target=1.01	92.7	13226	
527.00 > 81.00	6.295	6.282	0.013	1.000	175538		1.06(0.50-1.51)		7466	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.295	6.285	0.010	1.000	176194	10.2		106	12646	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.371	6.371	0.0	0.998	1729526	2.10		105	56345	
D 74 13C8 FOSA										
506.00 > 78.00	6.382	6.375	0.007	1.014	8295249	9.65		96.5	397846	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.443	6.428	0.015	1.024	1801305	9.62		96.2	49597	
76 NMeFOSAA										M
570.00 > 419.00	6.443	6.429	0.014	1.000	299903	1.89	Target=1.69	94.4	31713	M
570.00 > 483.00	6.433	6.429	0.004	0.998	186636		1.61(0.85-2.54)		399	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.536	6.522	0.014	1.096	943430	1.91	Target=4.28	99.0	43658	
599.00 > 99.00	6.524	6.522	0.002	1.094	227985		4.14(2.14-6.42)		14176	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.559	6.550	0.009	0.998	1020611	2.07	Target=7.28	103	18162	
563.00 > 169.00	6.559	6.550	0.009	0.998	145737		7.00(3.64-10.92)		8732	
D 80 13C7 PFUnA										
570.00 > 525.00	6.571	6.557	0.014	1.044	6620312	9.39		93.9	392885	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.583	6.569	0.014	1.046	1298965	9.72		97.2	57914	
82 NEtFOSAA										
584.00 > 419.00	6.583	6.570	0.013	1.000	248899	2.00	Target=1.63	99.8	598	
584.00 > 526.00	6.583	6.570	0.013	1.000	149922		1.66(0.82-2.45)		326	
83 10:2 FTUCA										
557.00 > 493.00	6.663	6.654	0.009	0.998	682649	2.02		101	31200	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.673	6.660	0.013	1.060	3522398	9.40		94.0	163263	
84 11ClFOS										
631.00 > 451.00	6.673	6.660	0.013	1.119	950118	1.77		95.1	59239	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.684	6.670	0.014	1.062	309681	8.88		88.8	19231	
86 10:2 FTCA										
577.00 > 493.00	6.684	6.670	0.014	1.000	64443	2.14		107	4002	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.801	6.787	0.014	0.998	994760	2.13	Target=4.76	107	30922	
613.00 > 169.00	6.801	6.787	0.014	0.998	189510		5.25(2.38-7.14)		7104	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.811	6.796	0.015	1.082	5108093	9.51		95.1	315113	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
90 10:2 FTS										
627.00 > 607.00	6.821	6.810	0.011	1.084	143179	1.84	Target=0.75	95.6	9099	
627.00 > 81.00	6.821	6.810	0.011	1.084	170389		0.84(0.38-1.13)		10421	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.811	6.813	-0.002	1.082	1258298	8.99		89.9	11793	
92 N-MeFOSE-M										
616.00 > 59.00	6.821	6.820	0.001	1.002	257924	2.02		101	4905	
94 NMeFOSA										
512.00 > 169.00	6.832	6.829	0.003	1.000	157785	2.05		103	7662	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.832	6.829	0.003	1.085	788041	8.86		88.6	13994	
95 PFDoS										
699.00 > 80.00	6.979	6.967	0.012	1.171	863176	1.96		101	44650	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.979	6.973	0.006	1.109	1498200	9.45		94.5	19273	
97 N-EtFOSE-M										
630.00 > 59.00	6.988	6.981	0.007	1.001	294363	1.95		97.6	11850	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.997	6.995	0.002	1.112	754056	9.12		91.2	17048	
100 N-EtFOSA-M										
526.00 > 169.00	6.997	6.996	0.001	1.000	154720	1.96		98.1	7783	
99 Perfluorotridecanoic acid										
663.00 > 619.00	7.007	6.996	0.010	1.029	842297	2.08	Target=4.11	104	19132	
663.00 > 169.00	7.007	6.996	0.010	1.029	181540		4.64(2.06-6.17)		9297	
105 HFPOTeA										
661.00 > 185.00	7.060	7.058	0.002	1.415	50006	19.8	Target=4.76	100	3254	
661.00 > 119.00	7.060	7.058	0.002	1.415	10424		4.80(2.38-7.14)		679	
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.186	7.181	0.005	0.999	715304	2.10	Target=4.34	105	18511	
713.00 > 169.00	7.186	7.181	0.005	0.999	164802		4.34(2.17-6.50)		11540	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.196	7.184	0.012	1.143	3856767	8.92		89.2	197838	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.489	7.483	0.006	1.041	443844	1.98	Target=5.44	98.8	15311	
813.00 > 169.00	7.489	7.483	0.006	1.041	79808		5.56(2.72-8.16)		4163	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.727	7.717	0.010	1.074	329041	2.04	Target=6.37	102	19407	
913.00 > 169.00	7.721	7.717	0.004	1.073	51700		6.36(3.18-9.55)		5042	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD3_00015 Amount Added: 200.00 Units: uL

Report Date: 02-Mar-2022 12:13:40 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-11.d

Injection Date: 02-Mar-2022 10:15:52 Instrument ID: 30728

Lims ID: CCV 2_CAL3

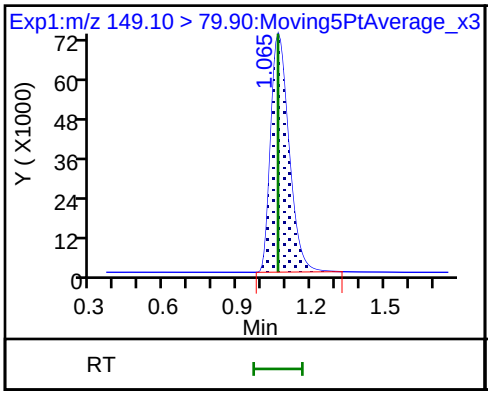
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20004 Worklist Smp#: 3

Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

107 Sodium trifluoromethanesulfonate



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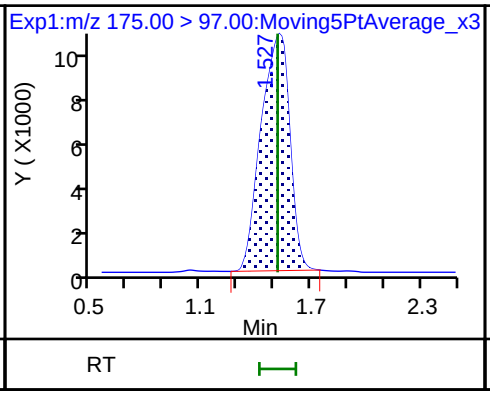
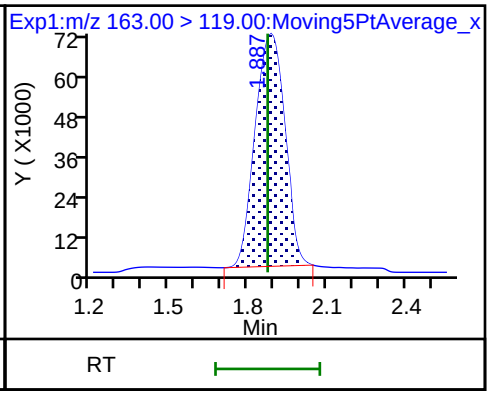
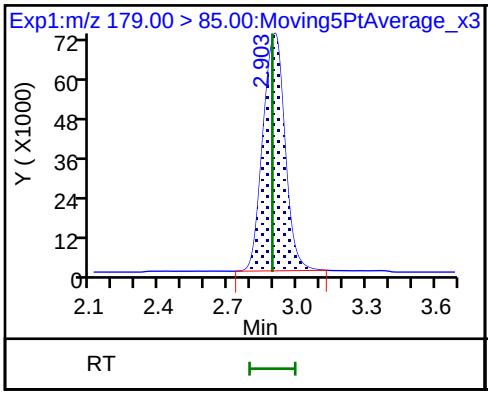


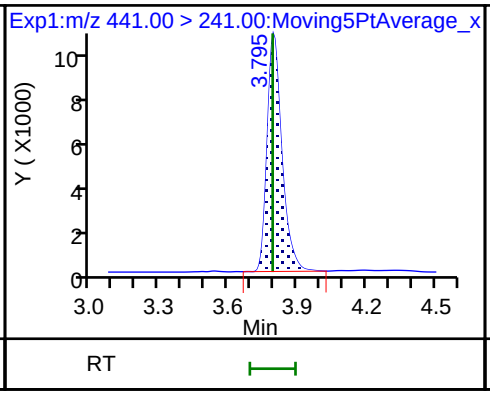
2 PPF Acid



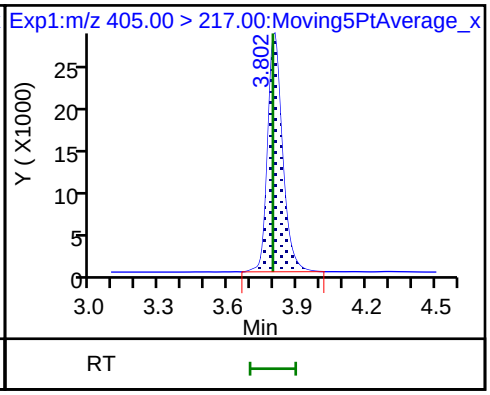
3 PFMOAA



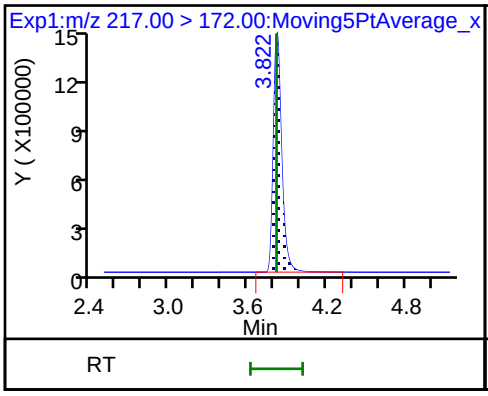
4 R-PSDA



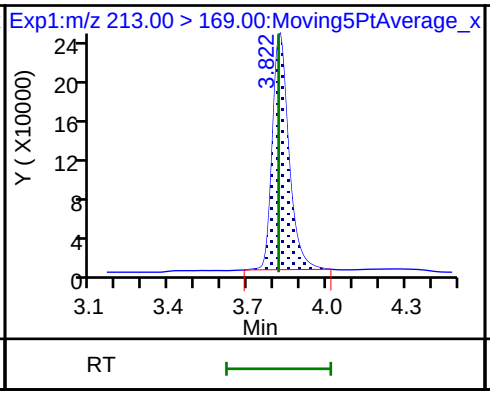
5 R-EVE



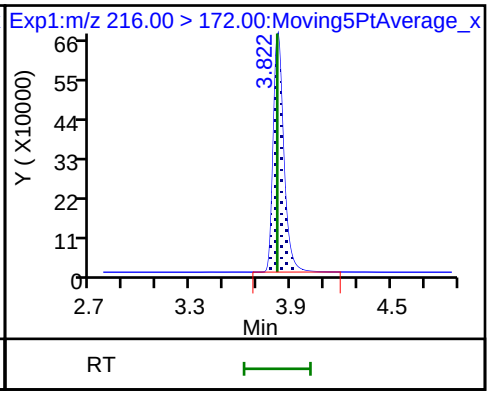
D 6 13C4 PFBA



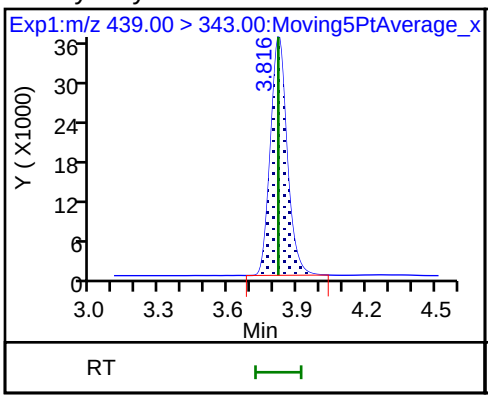
7 Perfluorobutanoic acid



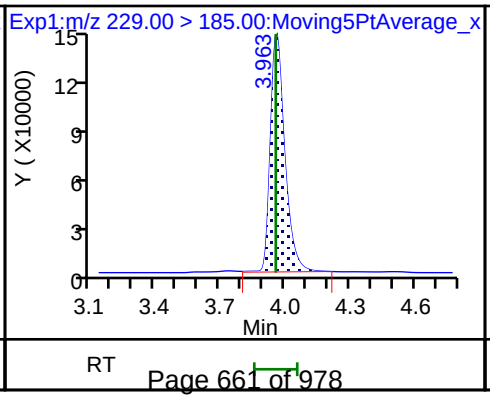
* 8 13C3-PFBA



9 Hydrolyzed PSDA



10 PMPA



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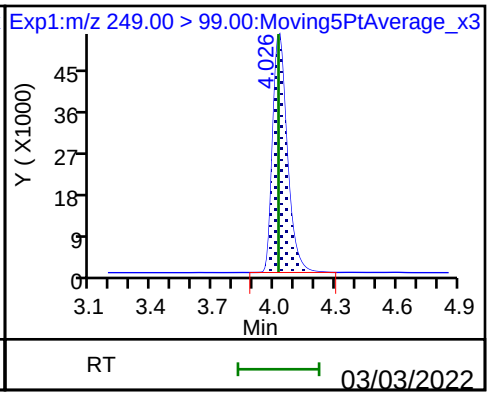
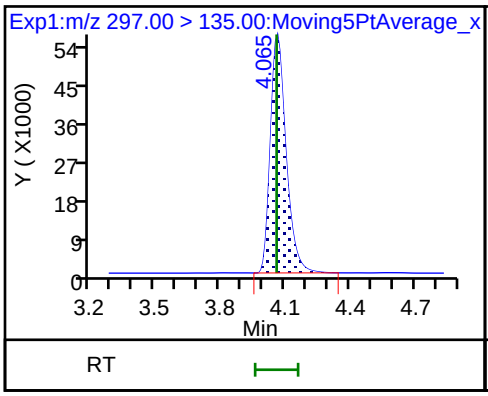
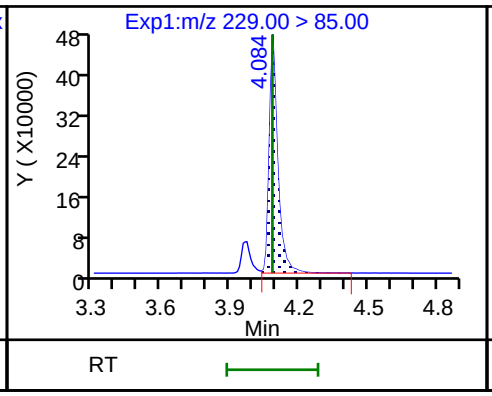


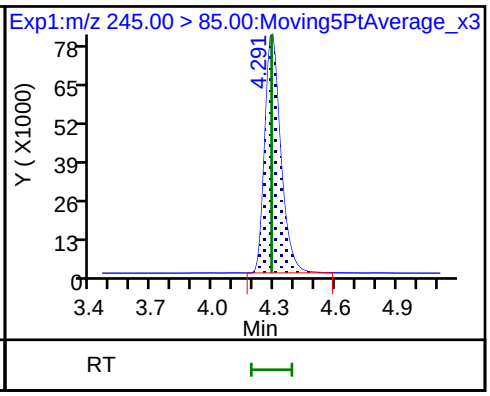
12 NVHOS



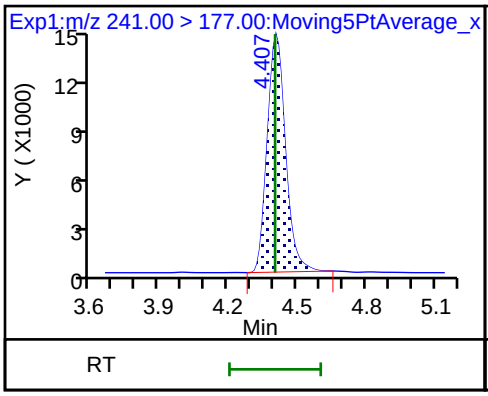
13 PFECA F



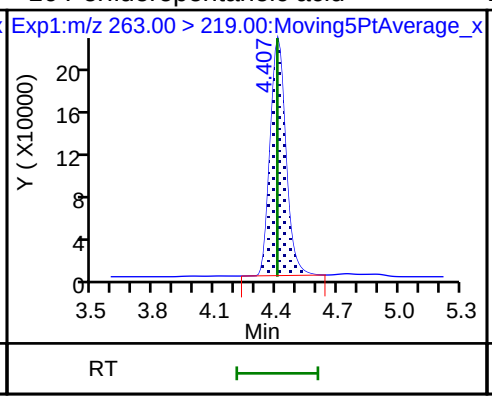
14 PFO2HxA



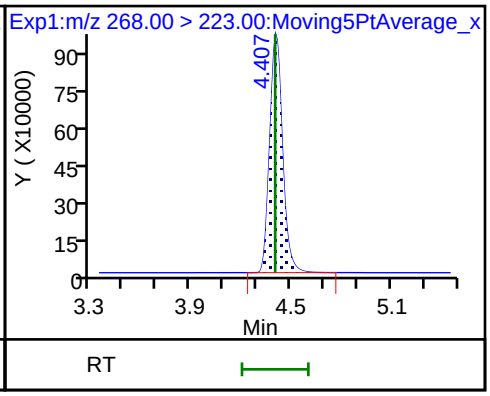
15 3:3 FTCA



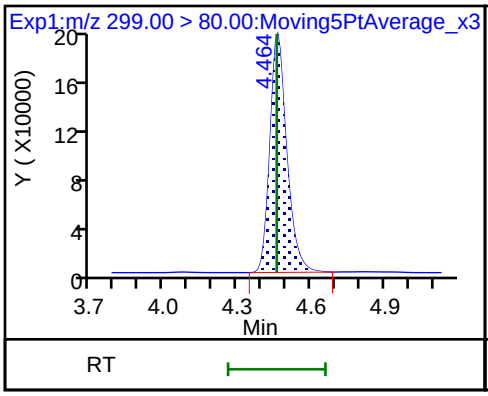
16 Perfluoropentanoic acid



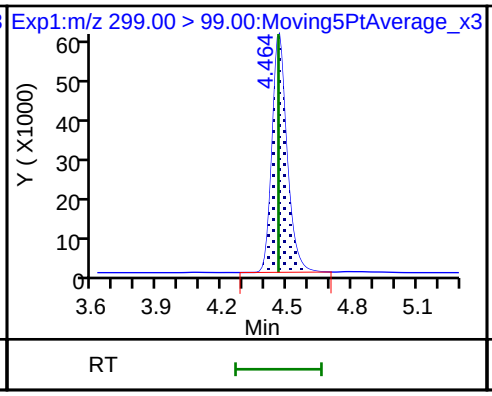
D 17 13C5 PFPeA



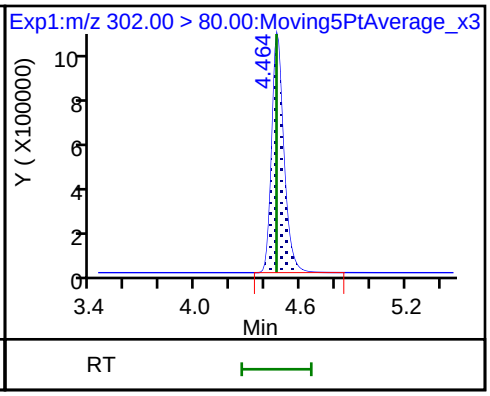
18 Perfluorobutanesulfonic acid



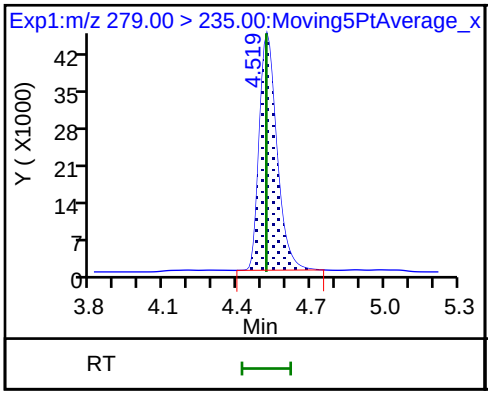
18 Perfluorobutanesulfonic acid



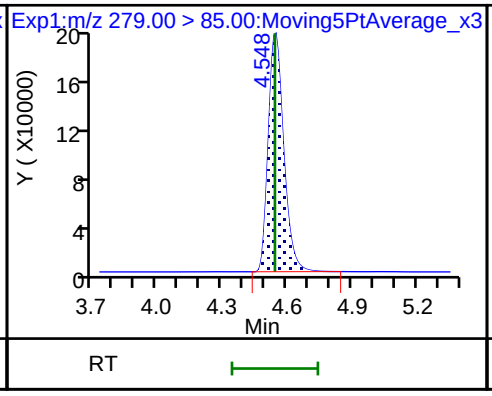
D 19 13C3 PFBS



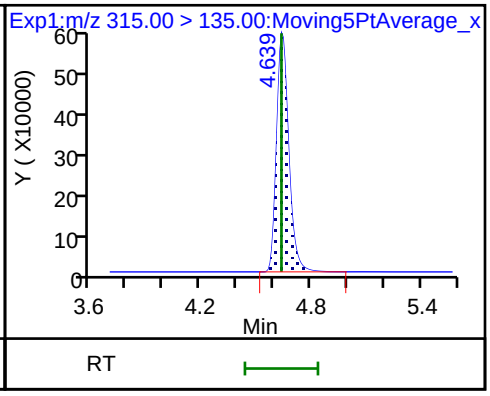
20 PEPA



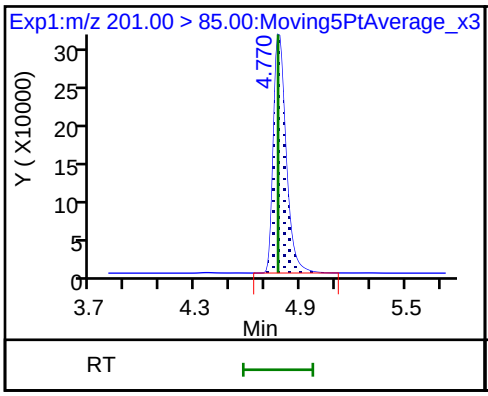
21 PFECA A



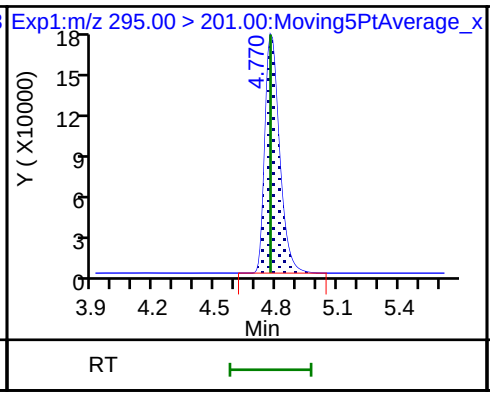
22 PES



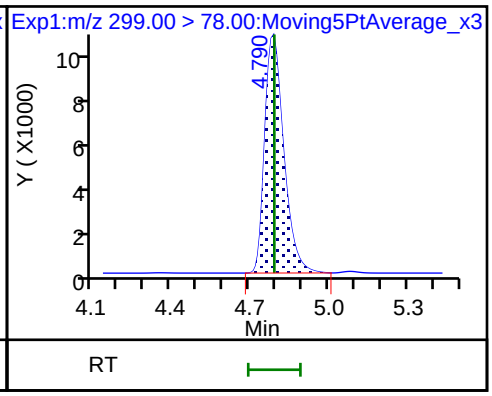
23 PFECA B



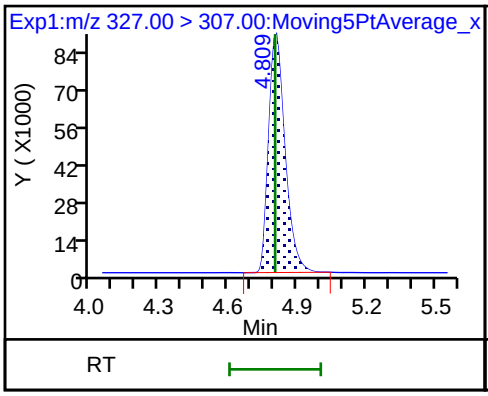
23 PFECA B



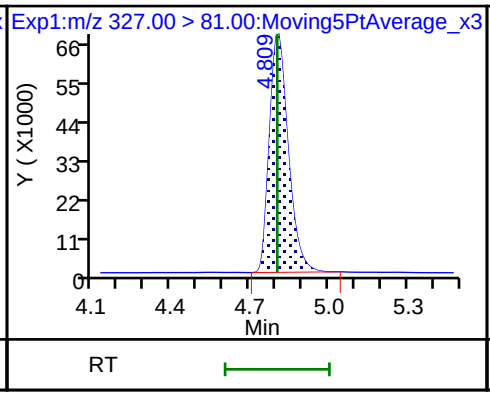
110 FBSA



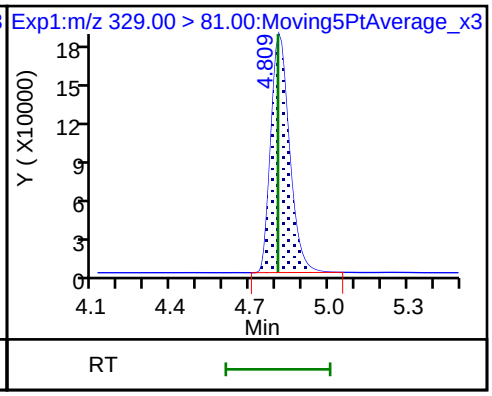
24 4:2 FTS



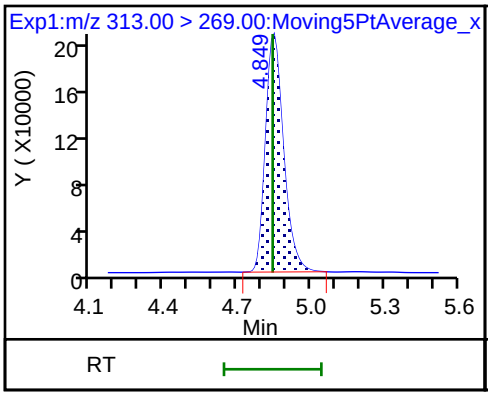
24 4:2 FTS



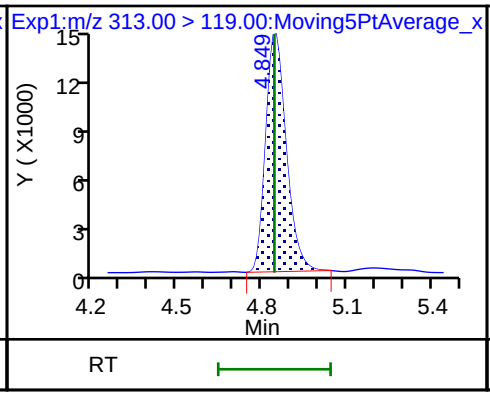
D 25 M2-4:2 FTS



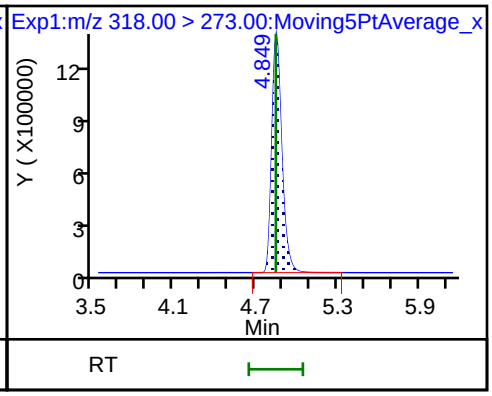
26 Perfluorohexanoic acid



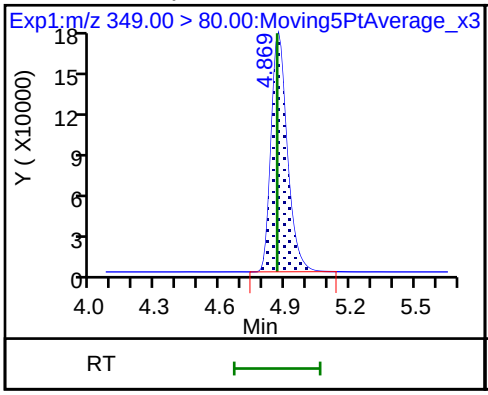
26 Perfluorohexanoic acid



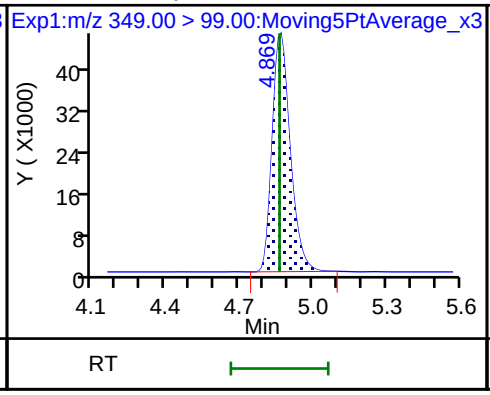
D 27 13C5 PFHxA



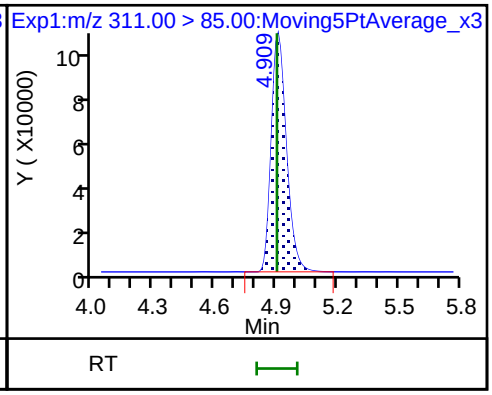
28 Perfluoropentanesulfonic acid



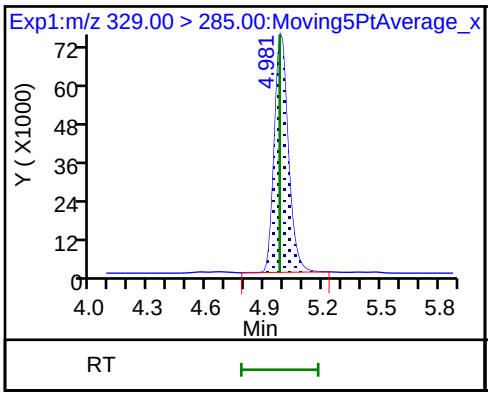
28 Perfluoropentanesulfonic acid



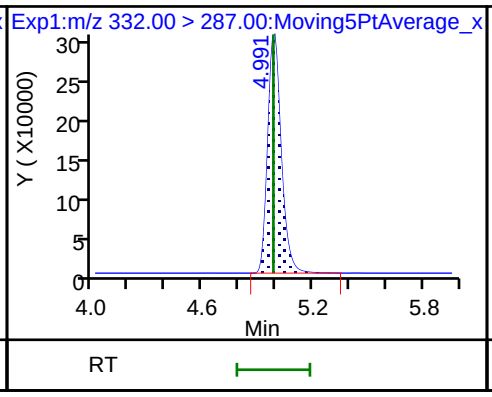
29 PFO3OA



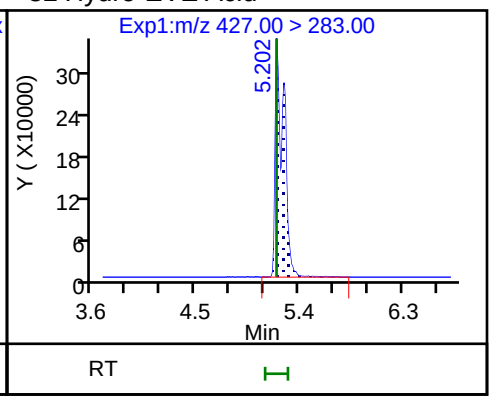
30 HFPO-DA



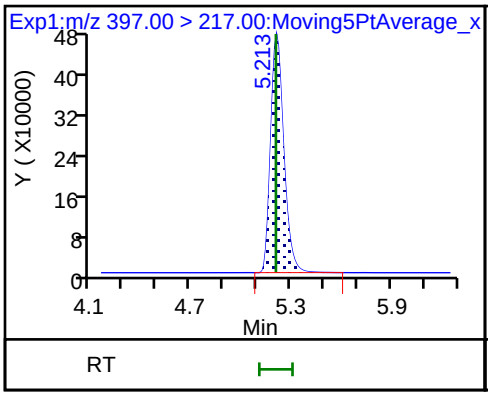
D 31 13C3 HFPO-DA



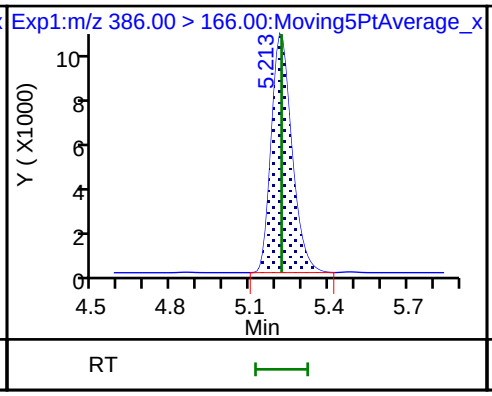
32 Hydro-EVE Acid



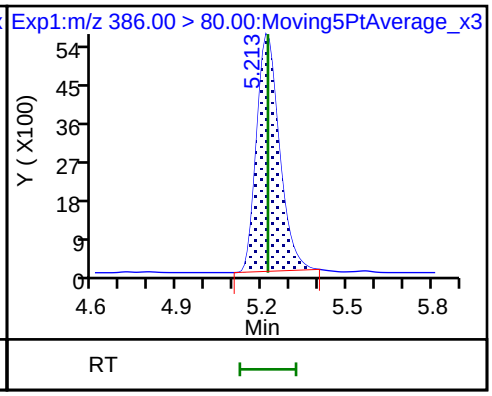
33 R-PSDCA



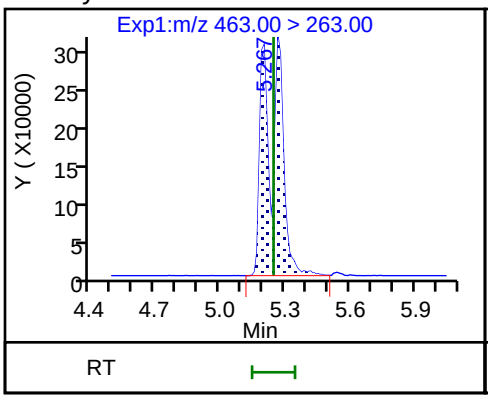
108 FBSEE



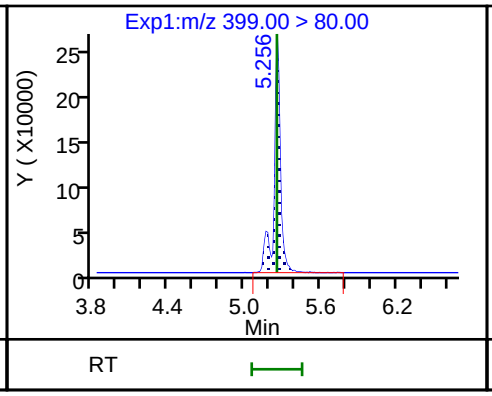
108 FBSEE



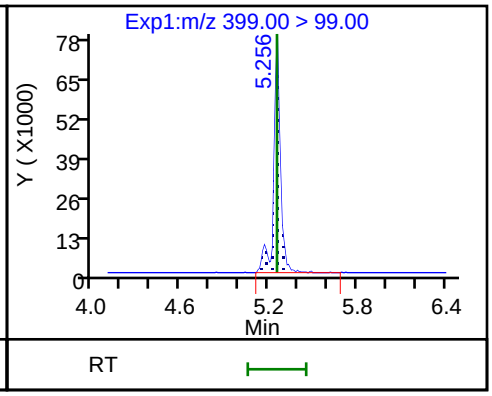
34 Hydro-PS Acid



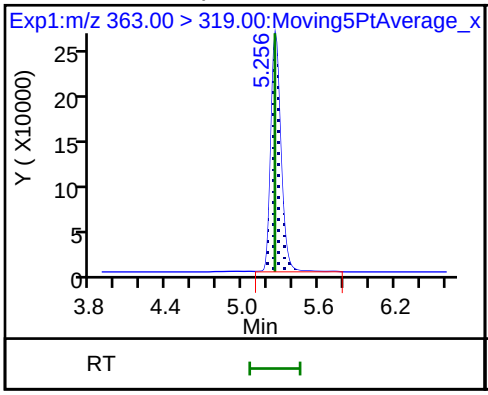
35 Perfluorohexanesulfonic acid



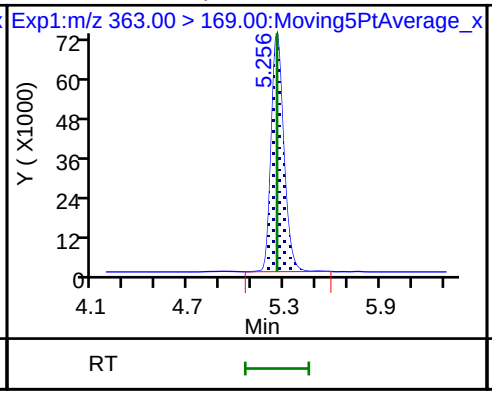
35 Perfluorohexanesulfonic acid



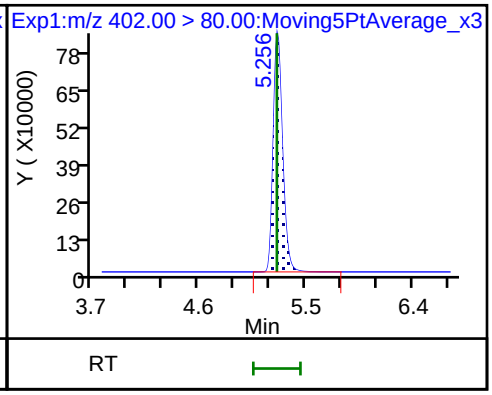
36 Perfluoroheptanoic acid



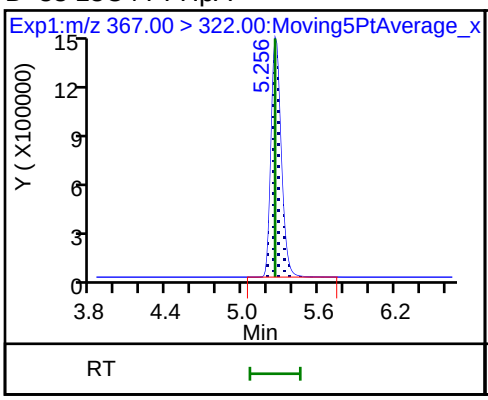
36 Perfluoroheptanoic acid



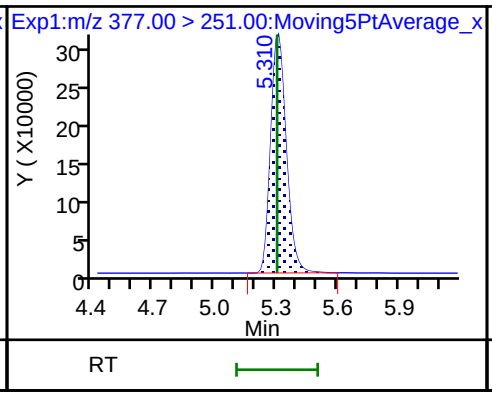
D 37 13C3 PFHxS



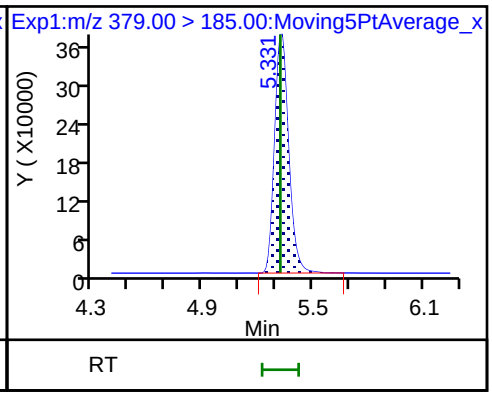
D 38 13C4 PFHpA



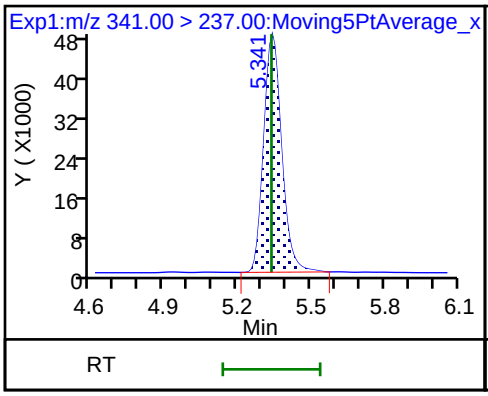
39 DONA



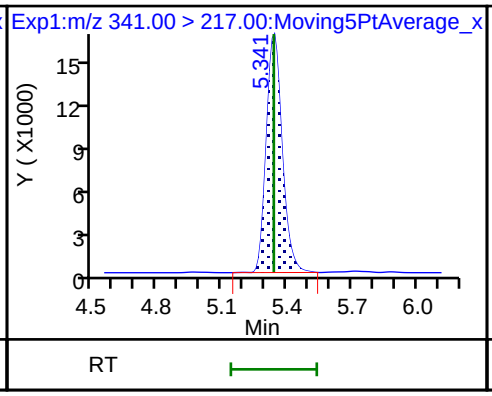
40 PFECA G



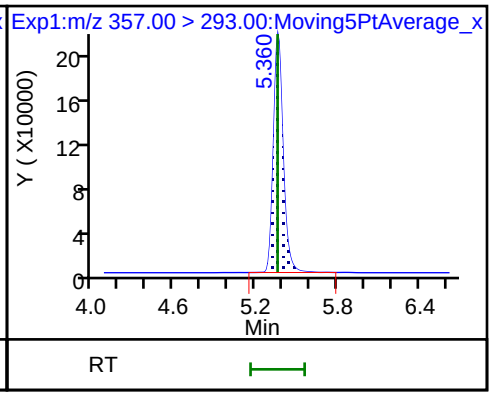
41 5:3 FTCA



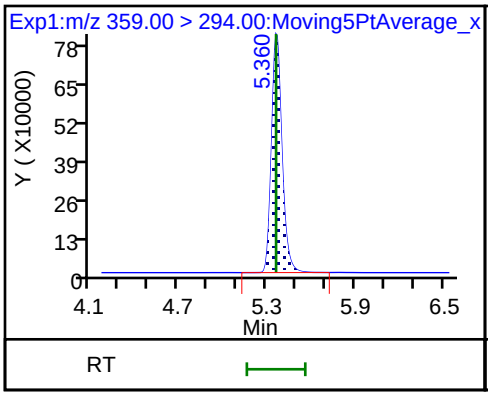
41 5:3 FTCA



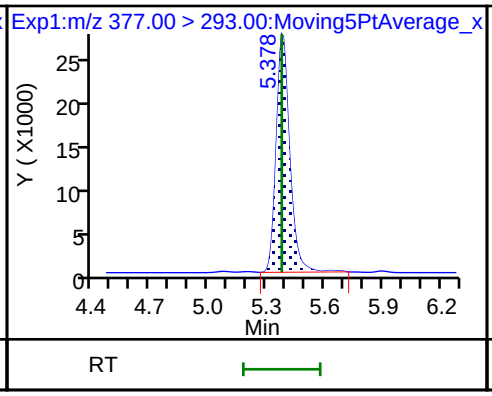
42 6:2 FTUCA



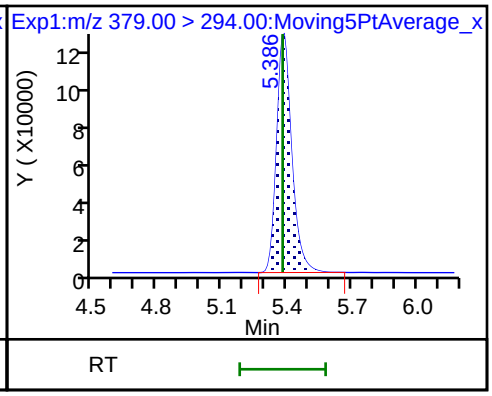
D 43 13C-6:2 FTUCA



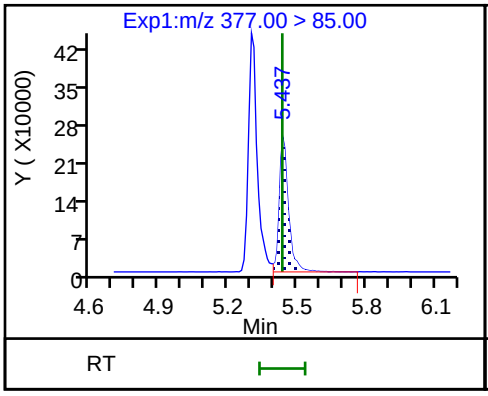
44 6:2 FTCA



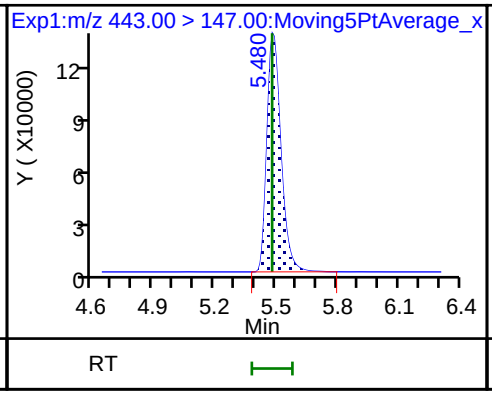
D 45 13C-6:2 FTCA



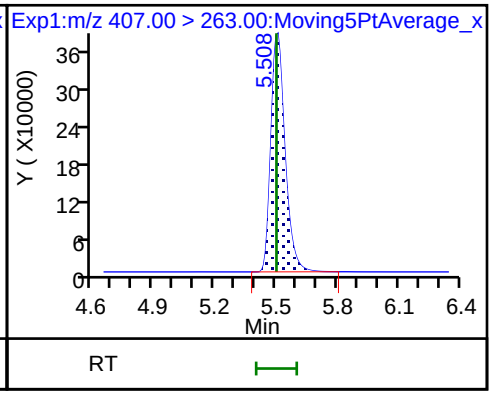
46 PFO4DA



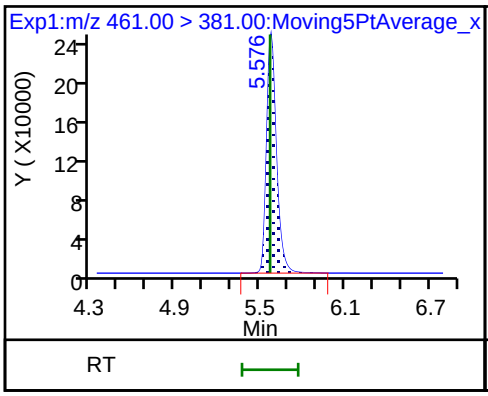
47 PS Acid



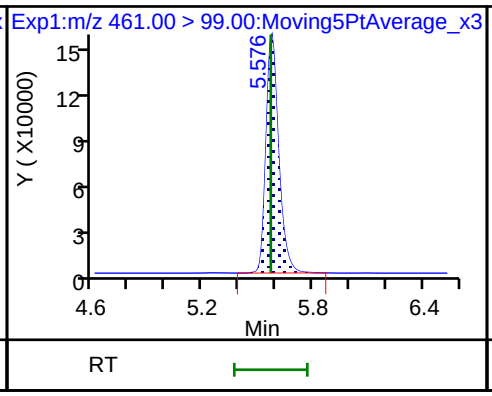
48 EVE Acid



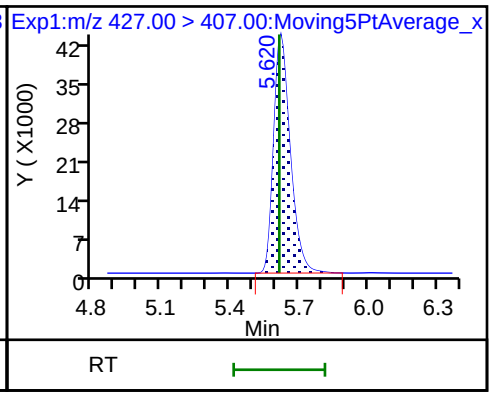
49 PFECHS



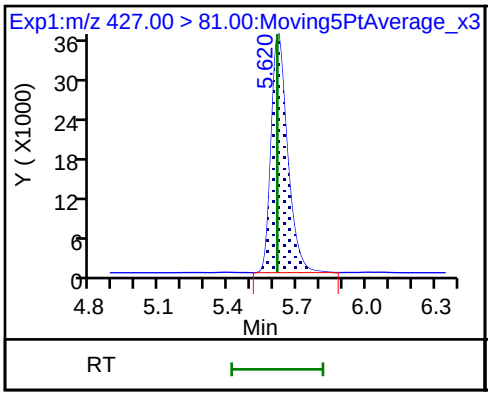
49 PFECHS



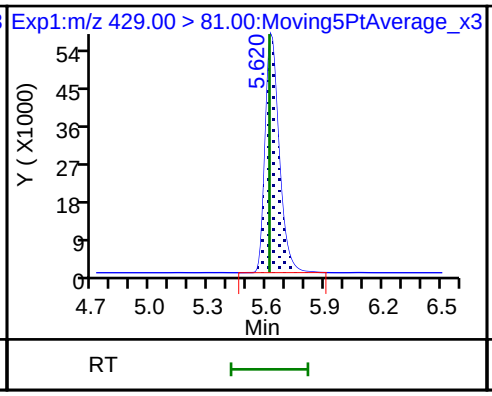
50 6:2 FTS



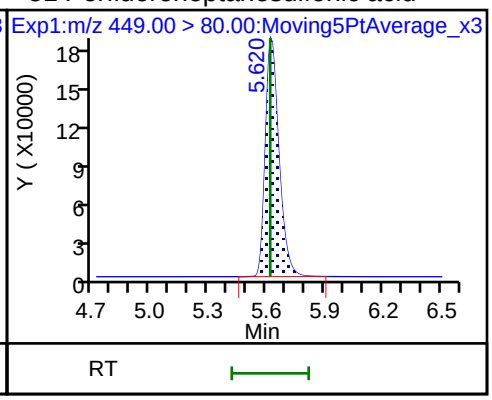
50 6:2 FTS



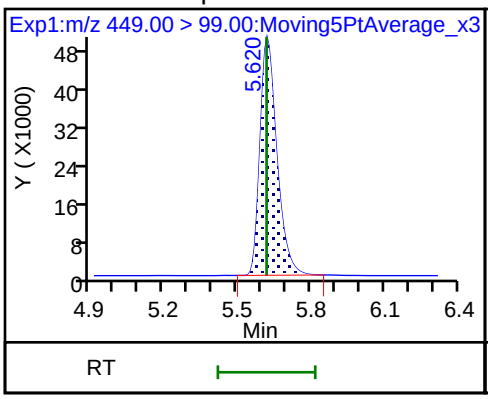
D 52 M2-6:2 FTS



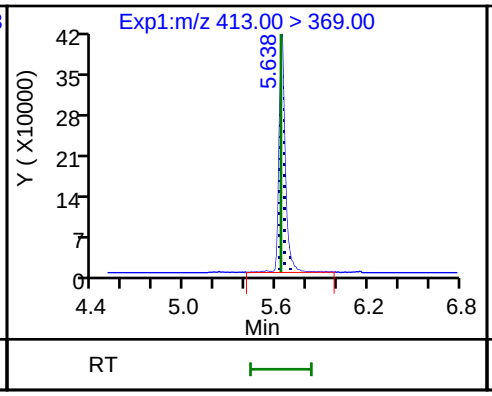
51 Perfluoroheptanesulfonic acid



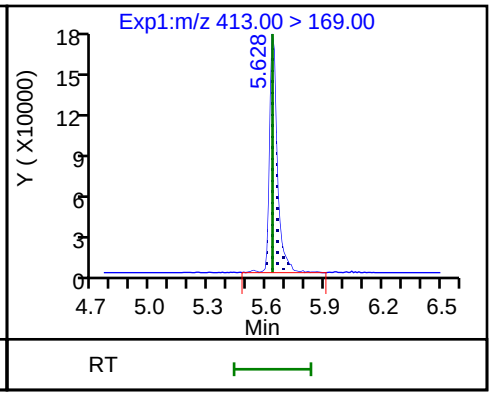
51 Perfluoroheptanesulfonic acid



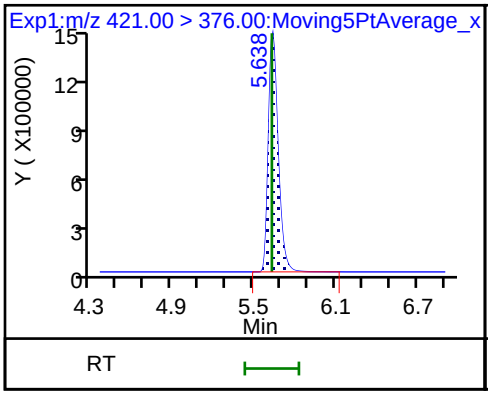
53 Perfluorooctanoic acid



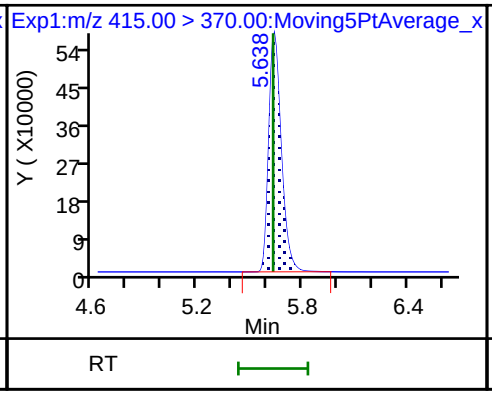
53 Perfluorooctanoic acid



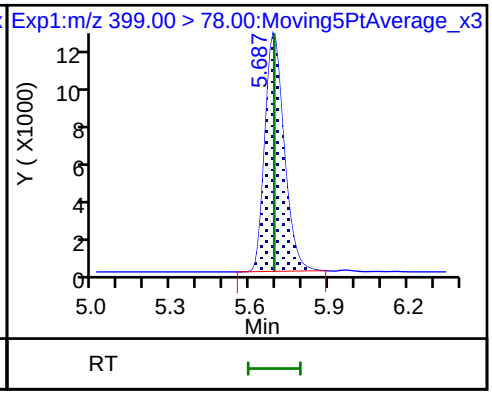
D 54 13C8 PFOA



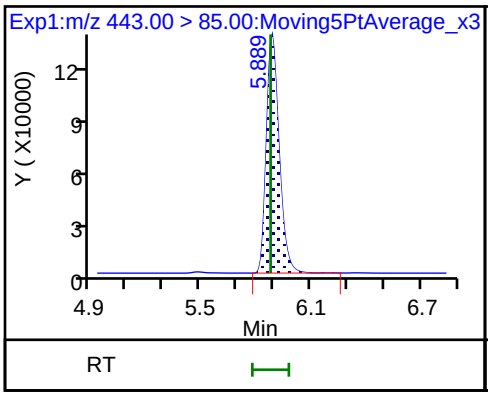
* 55 13C2 PFOA



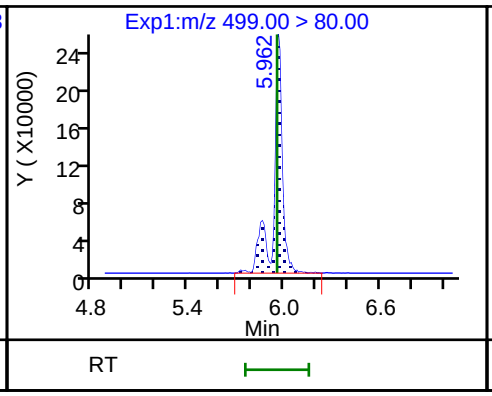
106 FHxSA



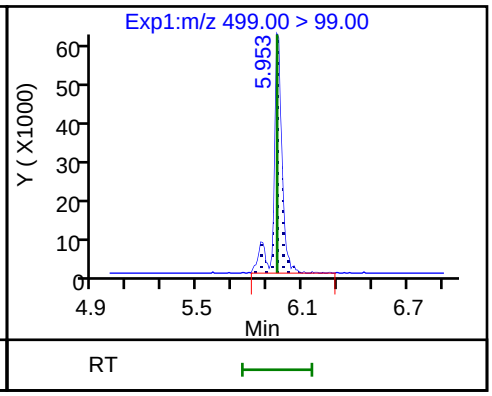
56 TAF



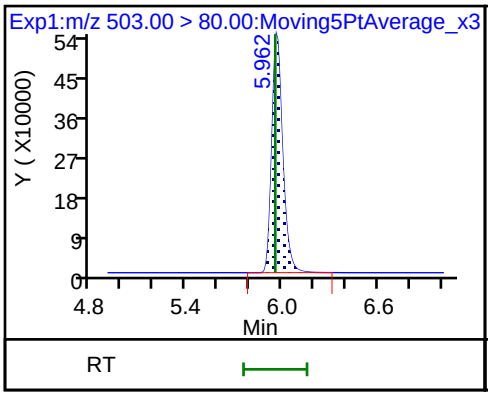
57 Perfluorooctanesulfonic acid



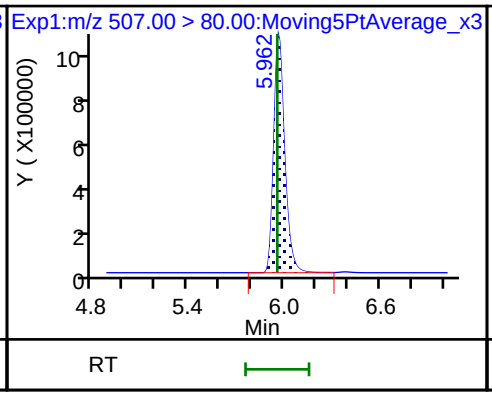
57 Perfluorooctanesulfonic acid



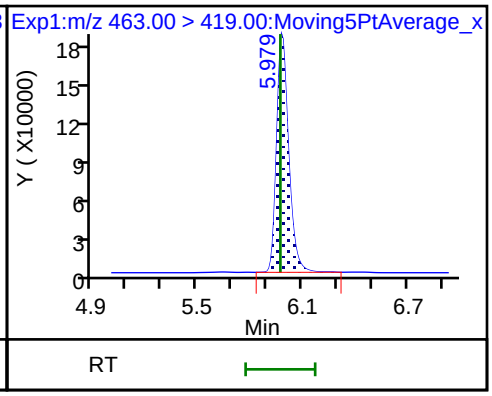
* 59 13C4 PFOS



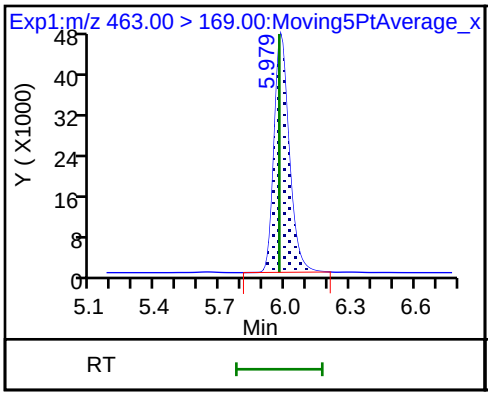
D 58 13C8 PFOS



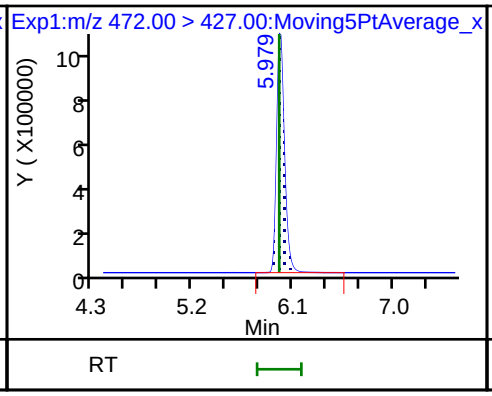
61 Perfluorononanoic acid



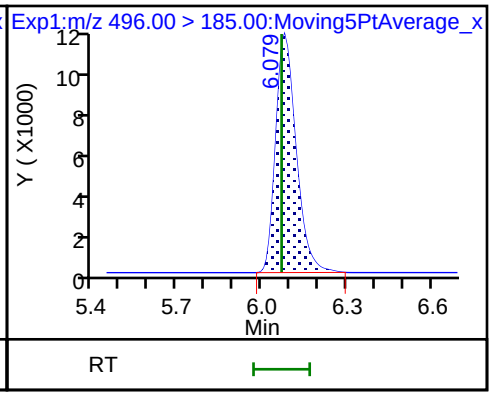
61 Perfluorononanoic acid



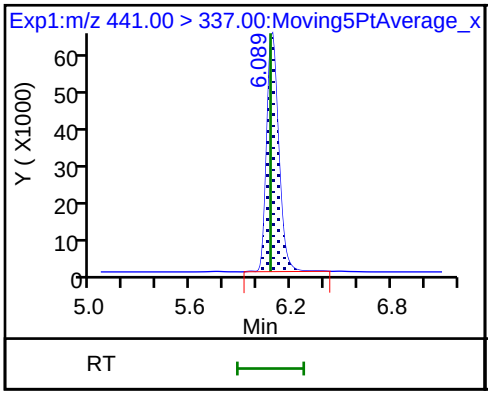
D 60 13C9 PFNA



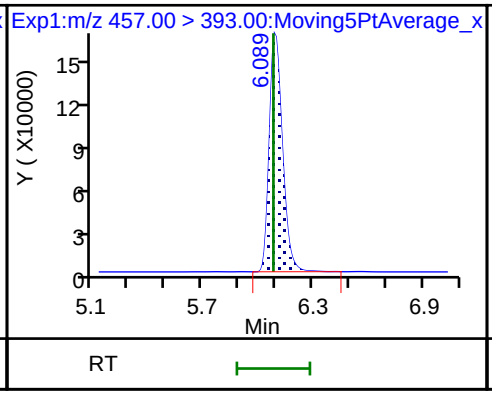
109 HFPO-TrA



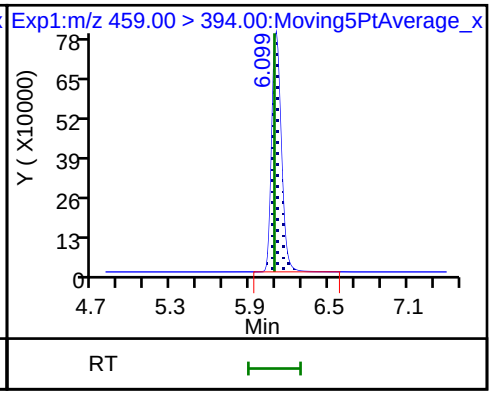
62 7:3 FTCA



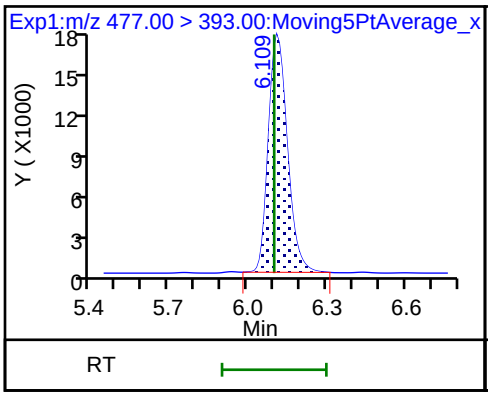
63 8:2 FTUCA



D 64 13C-8:2 FTUCA



65 8:2 FTCA



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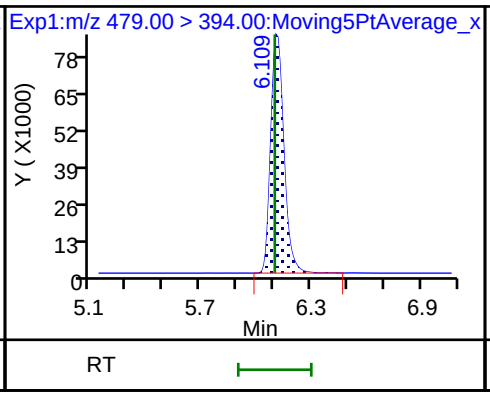
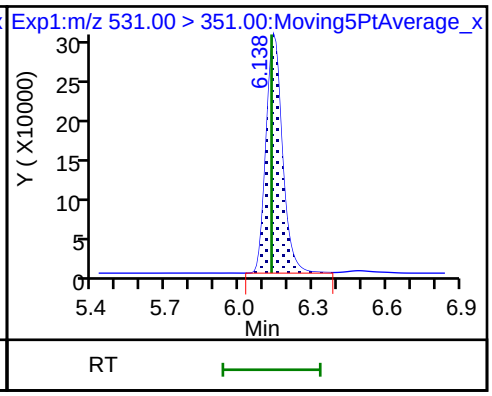
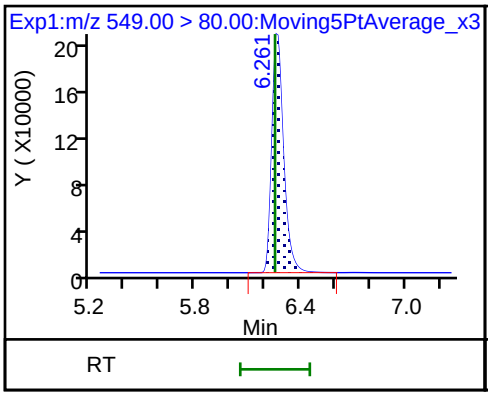


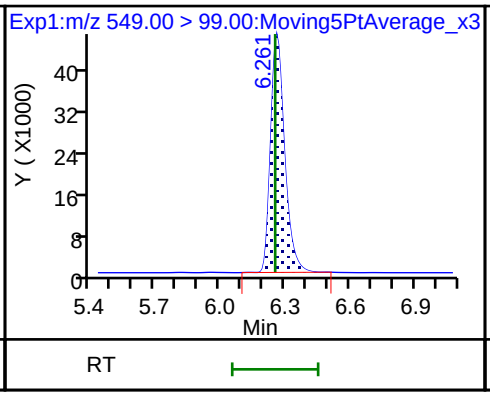
67 9ClFOS



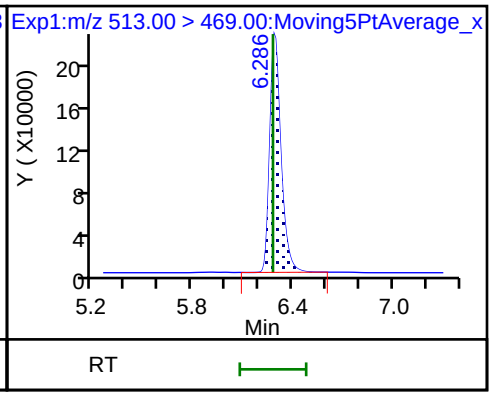
68 Perfluorononanesulfonic acid



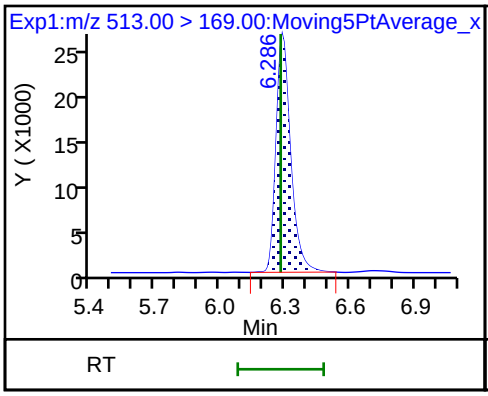
68 Perfluorononanesulfonic acid



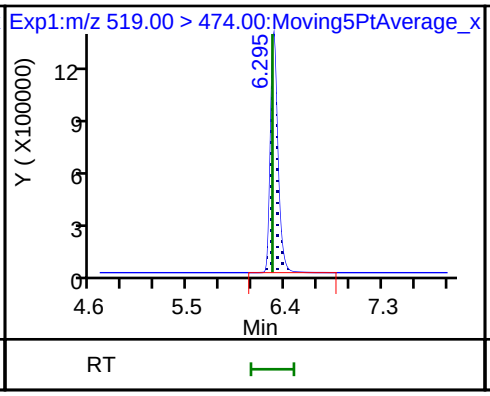
69 Perfluorodecanoic acid



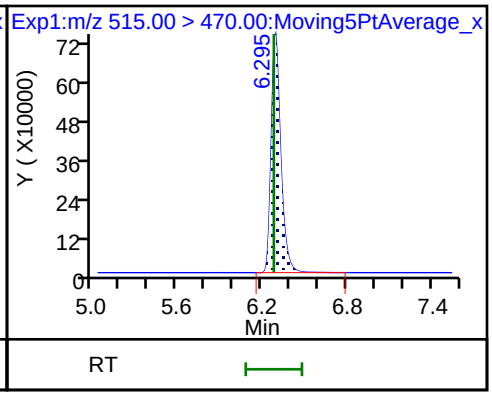
69 Perfluorodecanoic acid



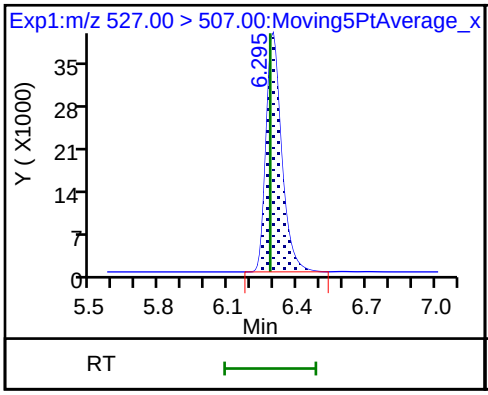
D 71 13C6 PFDA



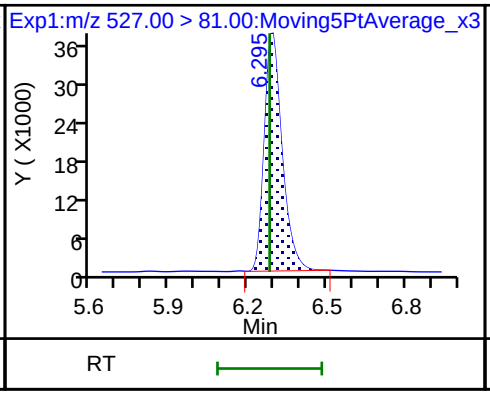
* 70 13C2 PFDA



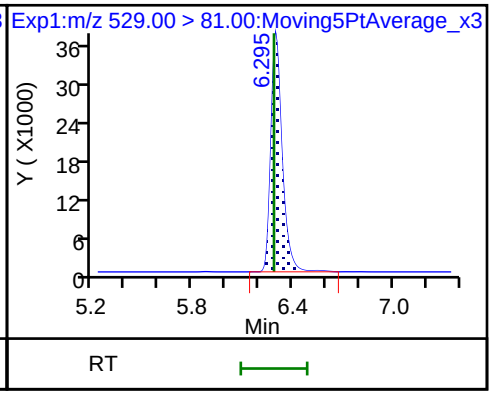
72 8:2 FTS



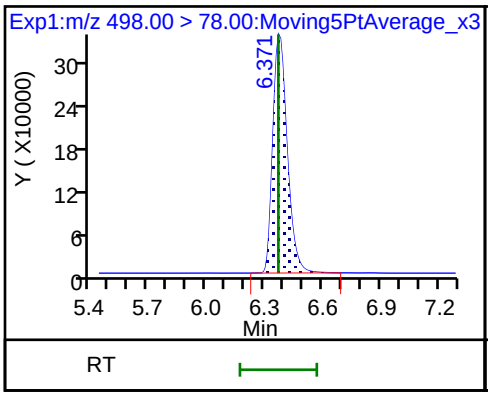
72 8:2 FTS



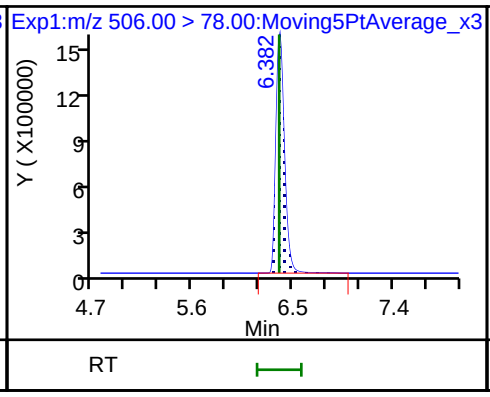
D 73 M2-8:2 FTS



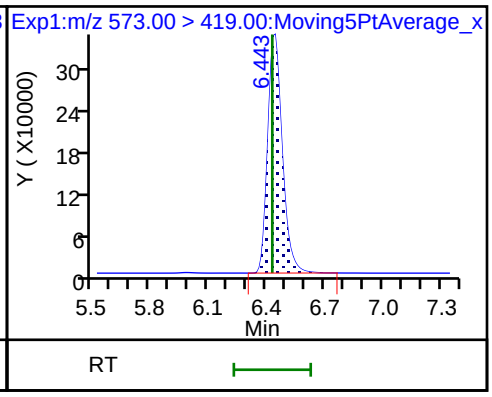
75 Perfluorooctanesulfonamide



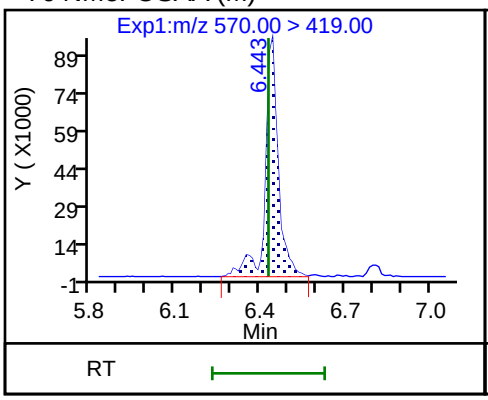
D 74 13C8 FOSA



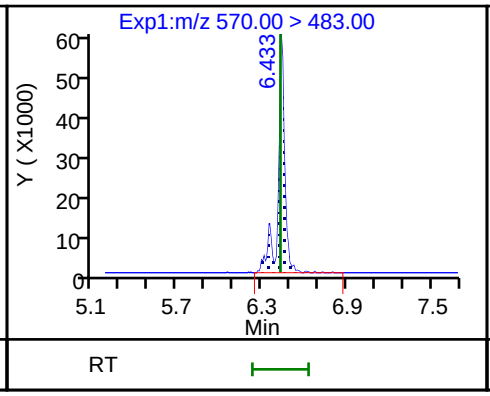
D 77 d3-NMeFOSAA



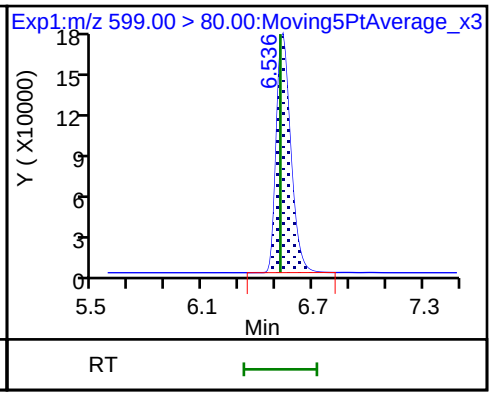
76 NMeFOSAA (M)



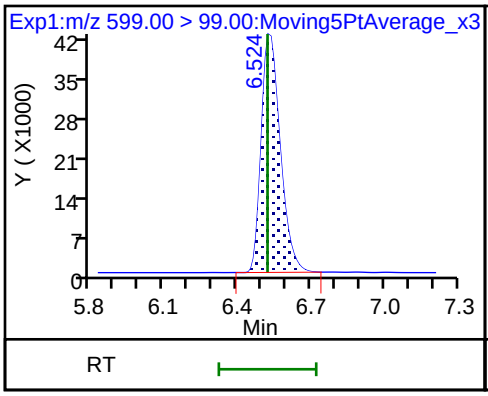
76 NMeFOSAA



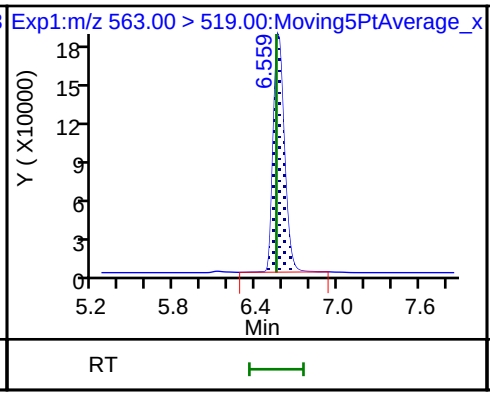
78 Perfluorodecanesulfonic acid



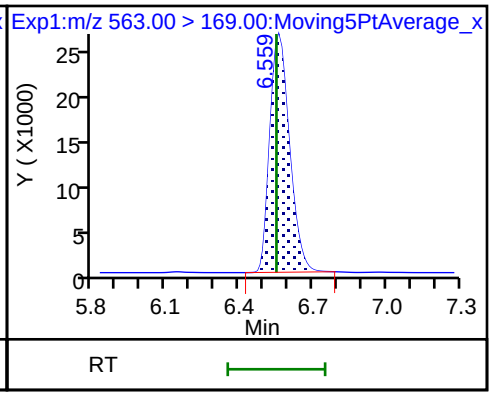
78 Perfluorodecanesulfonic acid



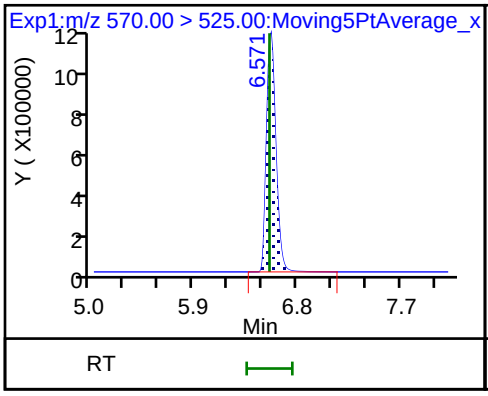
79 Perfluoroundecanoic acid



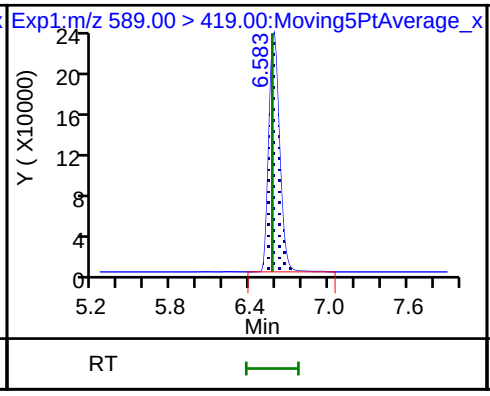
79 Perfluoroundecanoic acid



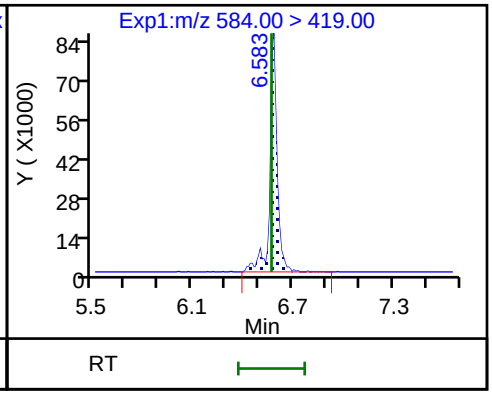
D 80 13C7 PFUnA



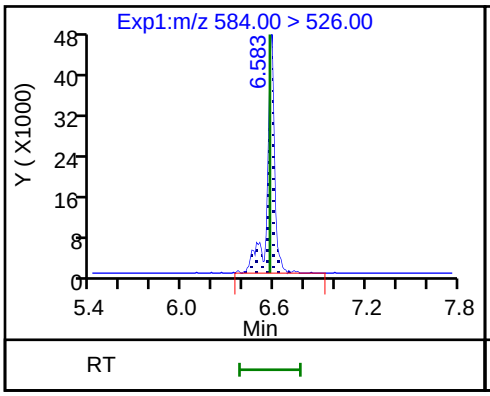
D 81 d5-NEtFOSAA



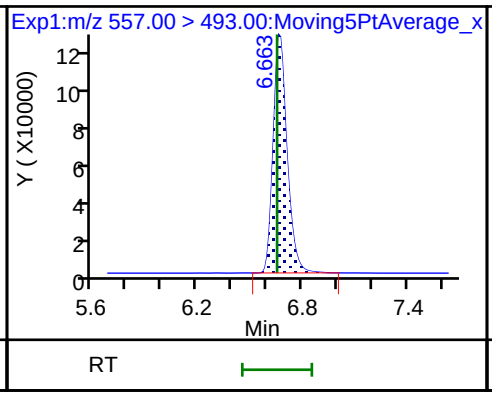
82 NEtFOSAA



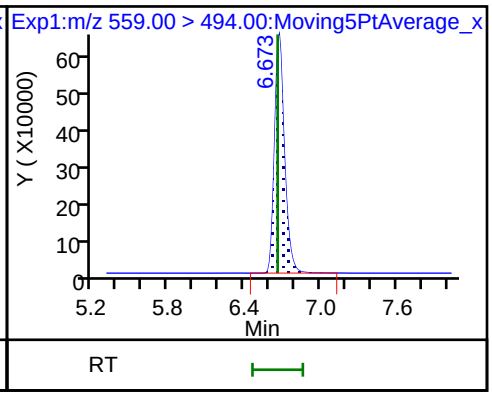
82 NEtFOSAA



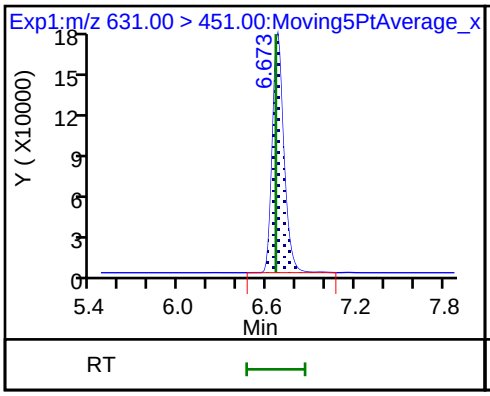
83 10:2 FTUCA



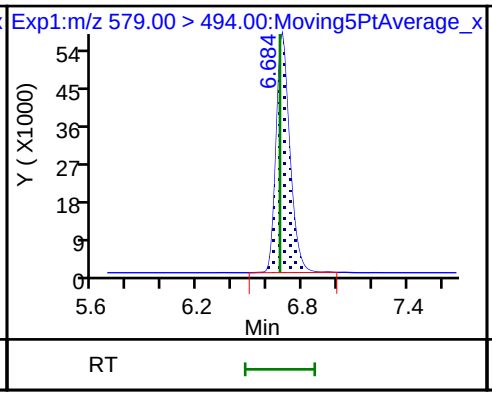
D 85 13C-10:2 FTUCA



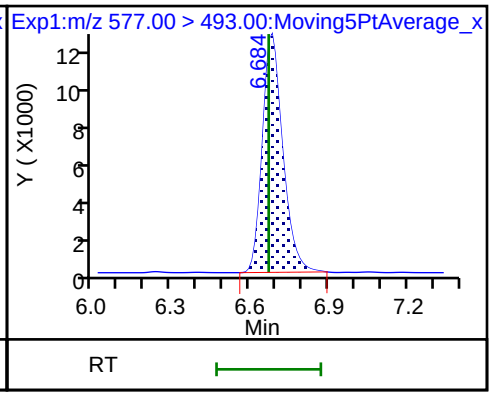
84 11ClFOS



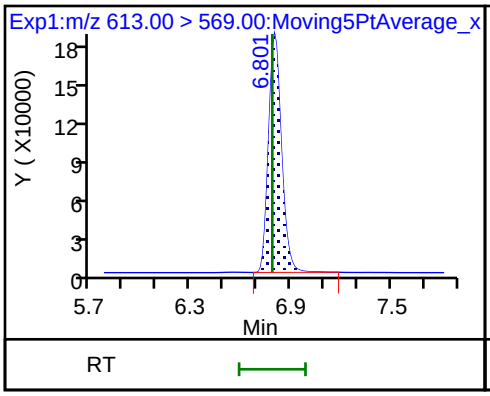
D 87 13C-10:2 FTCA



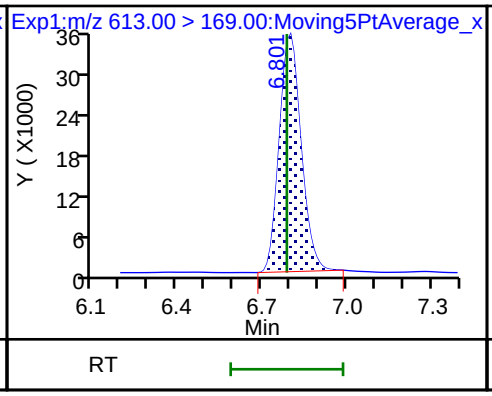
86 10:2 FTCA



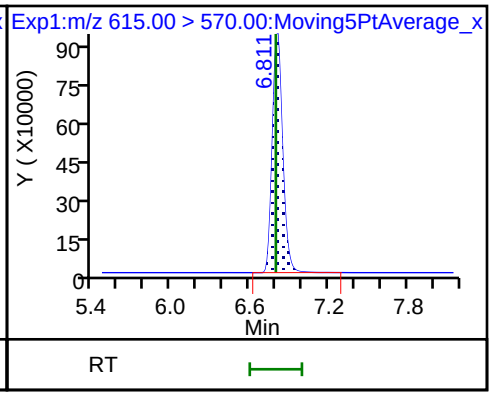
88 Perfluorododecanoic acid



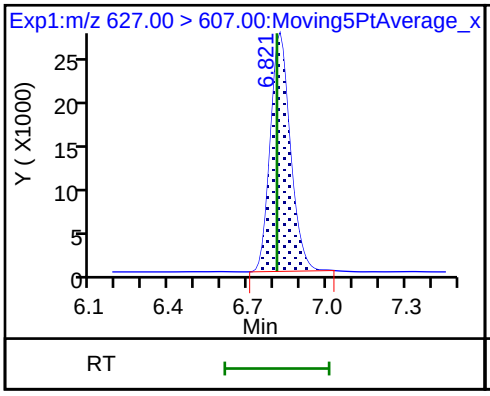
88 Perfluorododecanoic acid



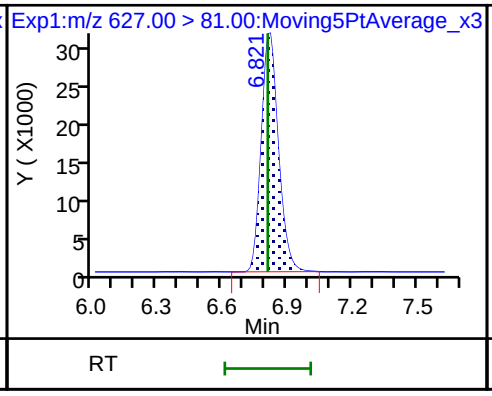
D 89 13C2-PFDoDA



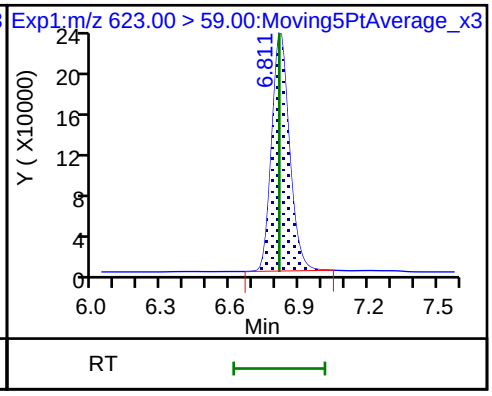
90 10:2 FTS



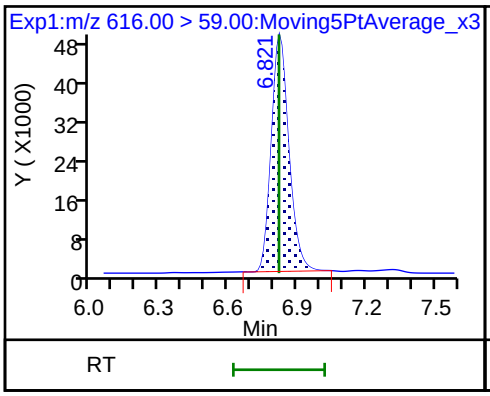
90 10:2 FTS



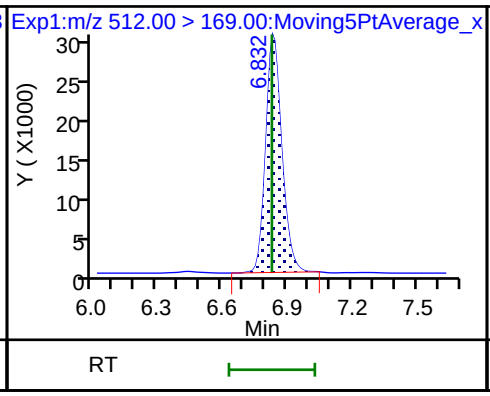
D 91 d7-N-MeFOSE-M



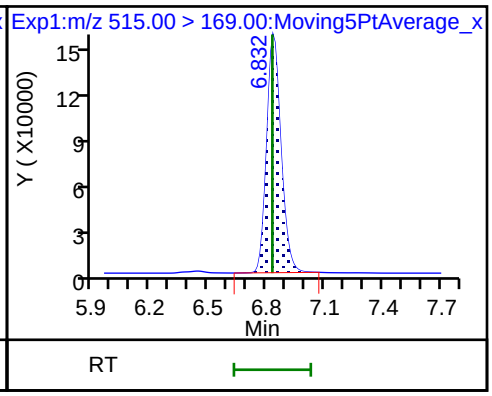
92 N-MeFOSE-M



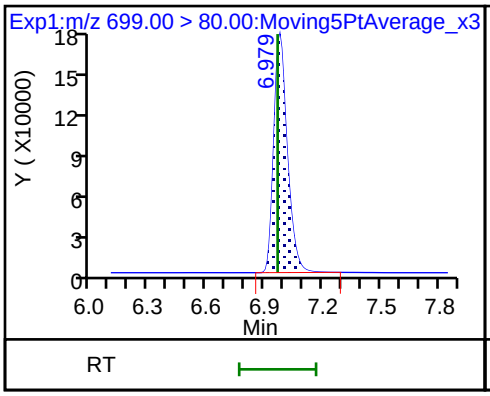
94 NMeFOSA



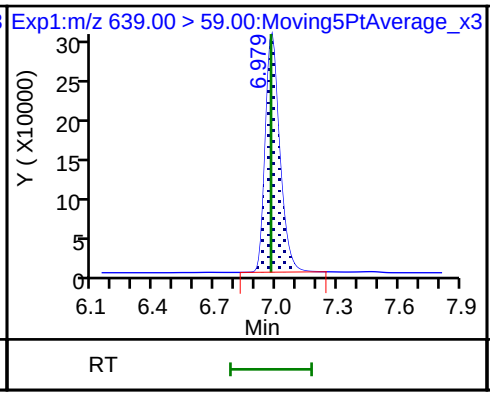
D 93 d3-NMePFOSA



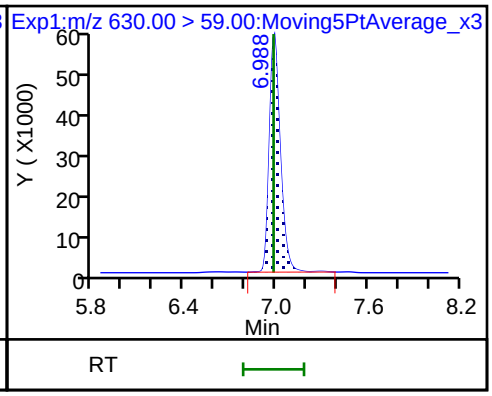
95 PFDoS



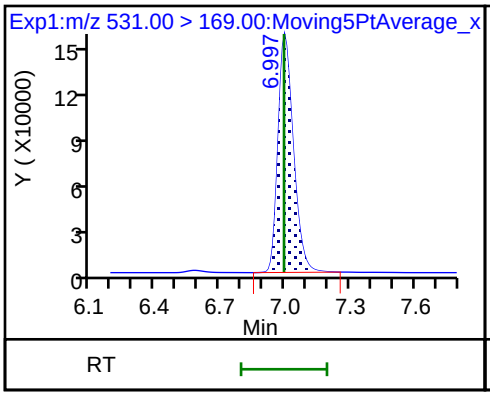
D 96 d9-N-EtFOSE-M



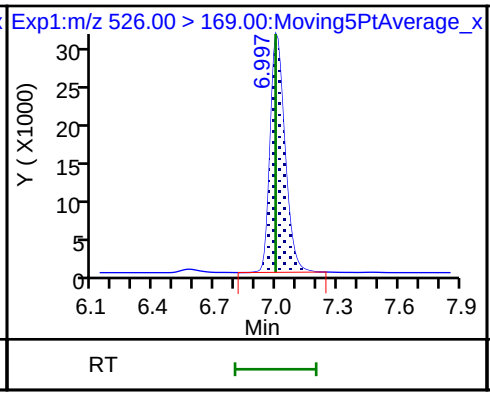
97 N-EtFOSE-M



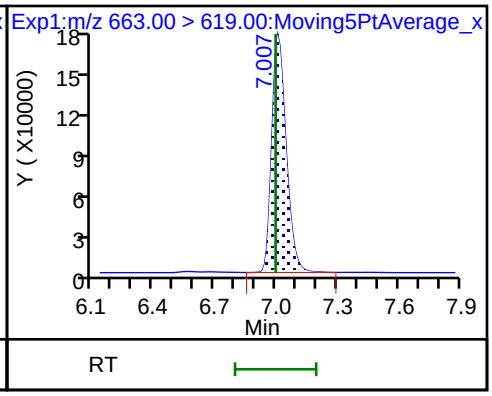
D 98 d5-NEtPFOSA



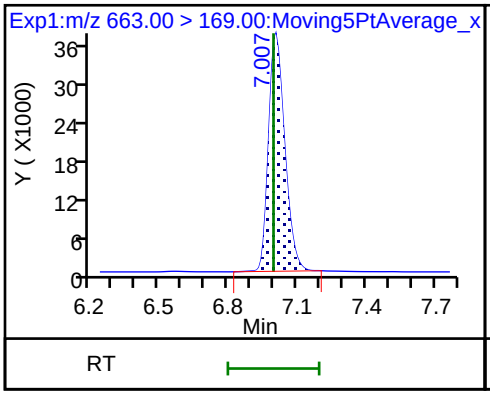
100 N-EtFOSA-M



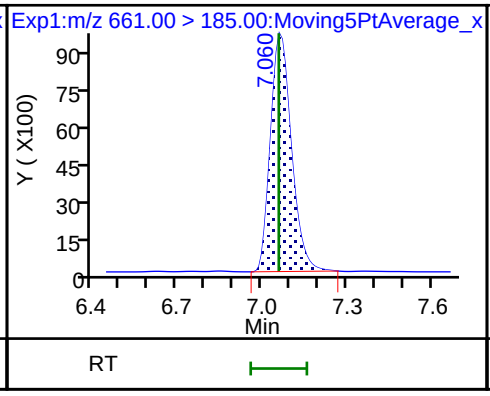
99 Perfluorotridecanoic acid



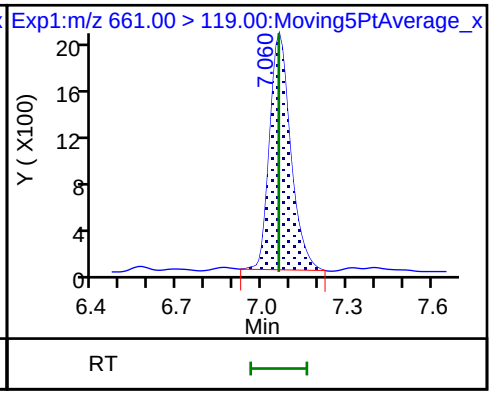
99 Perfluorotridecanoic acid



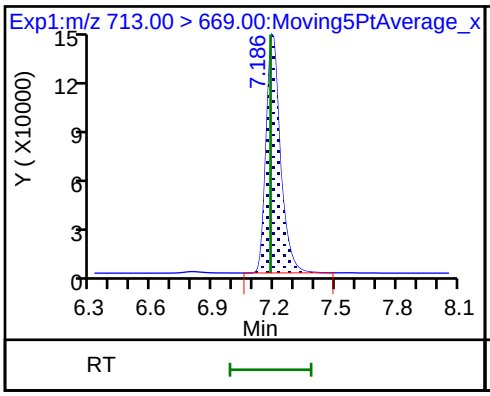
105 HFPOTeA



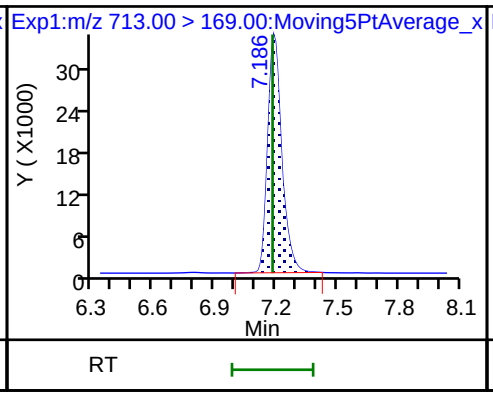
105 HFPOTeA



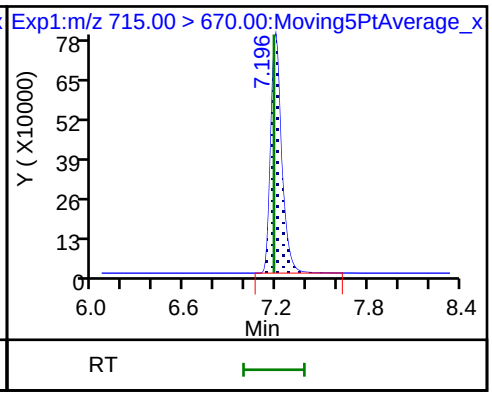
101 Perfluorotetradecanoic acid



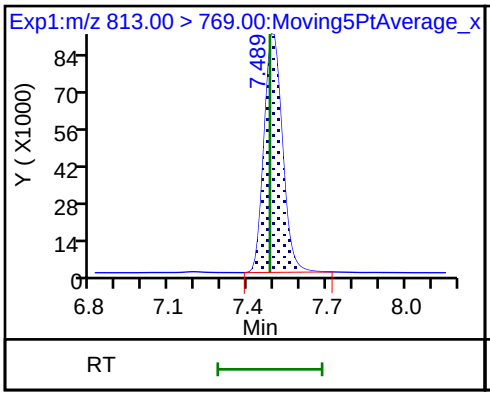
101 Perfluorotetradecanoic acid



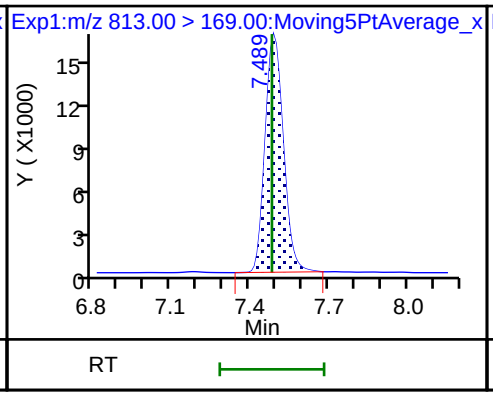
D 102 13C2 PFTeDA



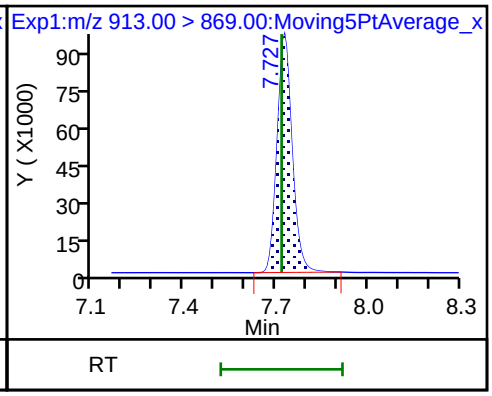
103 Perfluorohexadecanoic acid



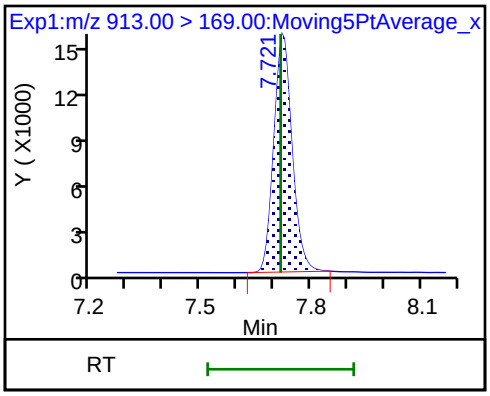
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

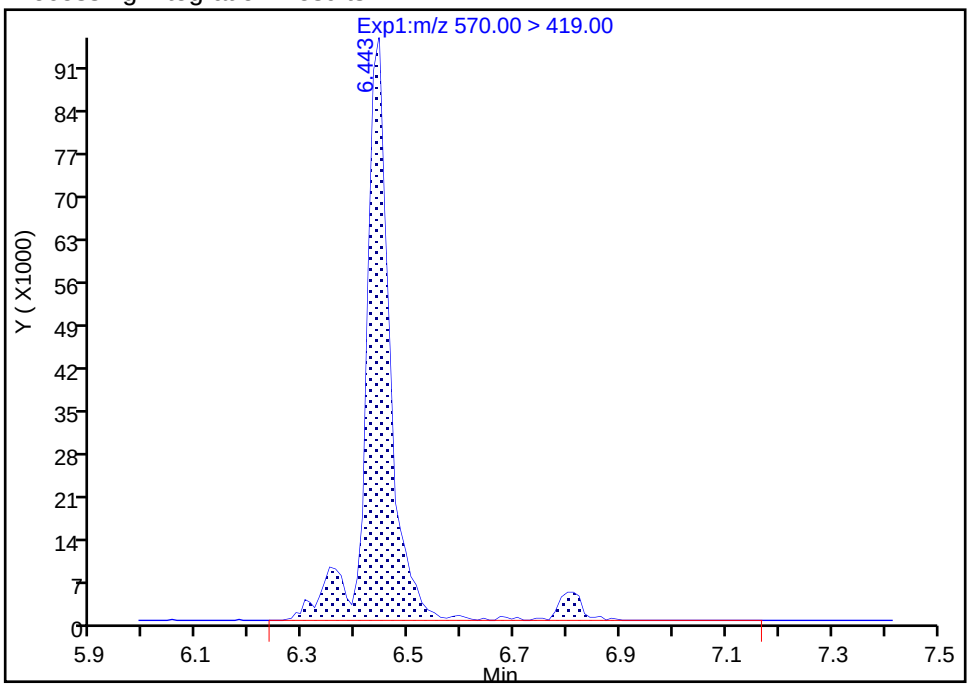
Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-11.d				
Injection Date:	02-Mar-2022 10:15:52	Instrument ID:	30728		
Lims ID:	CCV 2_CAL3				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20004	Worklist Smp#:	3
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

76 NMeFOSAA, CAS: 2355-31-9

Signal: 1

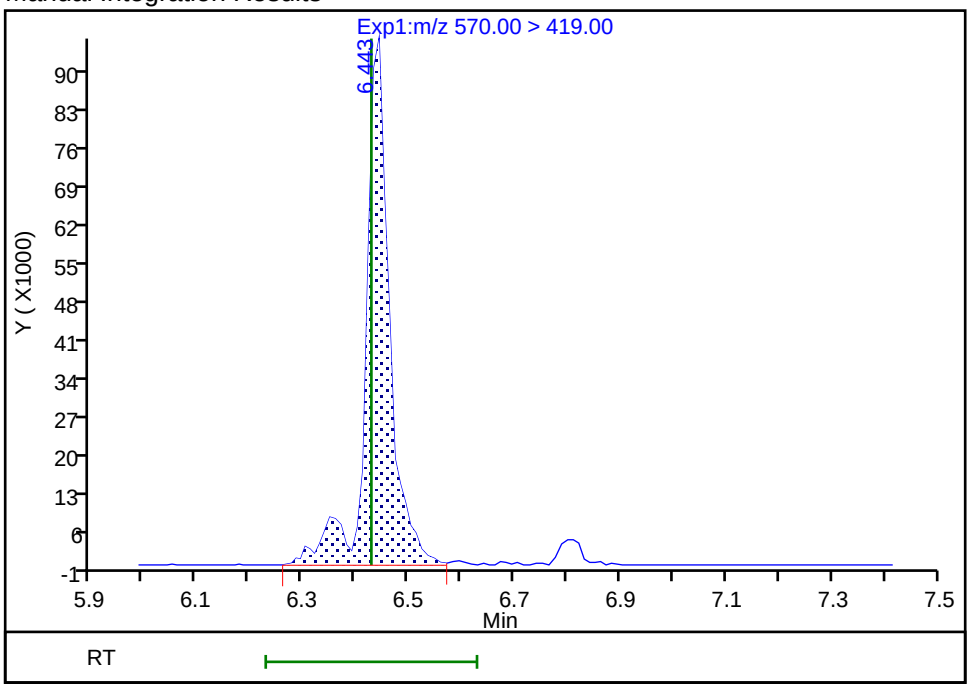
Processing Integration Results

RT: 6.44
Area: 315895
Amount: 1.988349
Amount Units: ng/ml



Manual Integration Results

RT: 6.44
Area: 299903
Amount: 1.887690
Amount Units: ng/ml



Reviewer: glicka, 02-Mar-2022 10:32:58

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-229099/12 Calibration Date: 03/02/2022 11:55

Instrument ID: 30728 Calib Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 03/01/2022 22:21

Lab File ID: 22MAR02-20.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Sodium trifluoromethanesulfonate	AveID	0.2668	0.2767		8.13	7.84	3.7	30.0
MTP	AveID	0.0968	0.1022		8.45	8.00	5.6	30.0
PPF Acid	AveID	0.4686	0.4882		8.33	8.00	4.2	30.0
PFMOAA	AveID	0.4002	0.4193		8.38	8.00	4.8	30.0
R-EVE	AveID	0.0911	0.1016		8.92	8.00	11.5	30.0
R-PSDA	AveID	0.0405	0.0443		8.74	8.00	9.3	30.0
Hydrolyzed PSDA	AveID	0.1544	0.1755		9.09	8.00	13.6	30.0
Perfluorobutanoic acid	AveID	0.8610	0.8968		8.33	8.00	4.2	30.0
PMPA	AveID	0.5107	0.5568		8.72	8.00	9.0	30.0
Perfluoropropanesulfonic acid	AveID	0.2297	0.2450		7.82	7.33	6.7	30.0
NVHOS	AveID	0.2689	0.2741		8.15	8.00	1.9	30.0
PFECA F	AveID	0.9487	0.9872		8.32	8.00	4.1	30.0
PFO2HxA	AveID	0.3764	0.3956		8.41	8.00	5.1	30.0
3:3 FTCA	AveID	0.0790	0.0824		8.35	8.00	4.4	30.0
Perfluoropentanoic acid	AveID	1.161	1.232		8.49	8.00	6.1	30.0
Perfluorobutanesulfonic acid	AveID	0.9673	1.013		7.42	7.08	4.7	30.0
PEPA	AveID	0.1783	0.1972		8.85	8.00	10.6	30.0
PFECA A	AveID	1.018	1.062		8.34	8.00	4.3	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	2.860	3.002		7.47	7.12	5.0	30.0
PFECA B	AveID	1.569	1.661		8.47	8.00	5.8	30.0
FBSA	AveID	0.0494	0.0530		8.58	8.00	7.3	30.0
4:2 Fluorotelomer sulfonic acid	AveID	2.650	2.795		7.88	7.47	5.5	30.0
Perfluorohexanoic acid	AveID	0.7751	0.8096		8.36	8.00	4.5	30.0
Perfluoropentanesulfonic acid	AveID	0.9194	0.9921		8.10	7.50	7.9	30.0
PFO3OA	AveID	0.4631	0.4798		8.29	8.00	3.6	30.0
HFPODA	AveID	1.235	1.303		8.44	8.00	5.5	30.0
Hydro-EVE Acid	AveID	1.375	1.569		9.13	8.00	14.2	30.0
FBSEE	AveID	0.0530	0.0598		9.03	8.00	12.9	30.0
R-PSDCA	AveID	2.464	2.709		8.79	8.00	9.9	30.0
Perfluoroheptanoic acid	AveID	0.9162	0.9684		8.46	8.00	5.7	30.0
Perfluorohexanesulfonic acid	AveID	0.9702	1.024		7.70	7.30	5.5	30.0
Hydro-PS Acid	AveID	1.672	1.841		8.81	8.00	10.1	30.0
DONA	AveID	1.157	1.137		7.43	7.56	-1.7	30.0
PFECA G	AveID	1.613	1.718		8.52	8.00	6.5	30.0
5:3 FTCA	AveID	0.1711	0.1867		8.73	8.00	9.1	30.0
6:2 FTUCA	AveID	1.239	1.354		8.74	8.00	9.3	30.0
6:2 FTCA	AveID	1.034	1.052		8.14	8.00	1.7	30.0
PFO4DA	AveID	0.5638	0.5985		8.49	8.00	6.2	30.0
PS Acid	AveID	0.5935	0.6610		8.91	8.00	11.4	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-229099/12 Calibration Date: 03/02/2022 11:55

Instrument ID: 30728 Calib Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 03/01/2022 22:21

Lab File ID: 22MAR02-20.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
EVE Acid	AveID	1.414	1.599		9.05	8.00	13.1	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.306	1.403		7.94	7.39	7.4	30.0
6:2 Fluorotelomer sulfonic acid	AveID	3.641	4.197		8.74	7.58	15.3	30.0
Perfluoroheptanesulfonic acid	AveID	0.9614	1.038		8.22	7.62	8.0	30.0
Perfluorooctanoic acid	AveID	0.7464	0.7652		8.20	8.00	2.5	30.0
FHxSA	AveID	0.0638	0.0703		8.82	8.00	10.2	30.0
TAF	AveID	0.5334	0.5671		8.51	8.00	6.3	30.0
Perfluorooctanesulfonic acid	AveID	0.9774	0.9816		7.44	7.40	0.4	30.0
Perfluorononanoic acid	AveID	0.8711	0.9541		8.76	8.00	9.5	30.0
HFPO-TrA	AveID	0.0151	0.0202		53.4	40.0	33.4*	30.0
7:3 FTCA	AveID	2.428	2.477		8.16	8.00	2.0	30.0
8:2 FTUCA	AveID	0.9431	0.9870		8.37	8.00	4.7	30.0
8:2 FTCA	AveID	0.998	1.090		8.73	8.00	9.2	30.0
9Cl-PF3ONS	AveID	1.406	1.442		7.63	7.44	2.6	30.0
Perfluorononanesulfonic acid	AveID	0.9688	1.017		8.06	7.68	5.0	30.0
Perfluorodecanoic acid	AveID	0.8410	0.8785		8.36	8.00	4.5	30.0
8:2 Fluorotelomer sulfonic acid	AveID	5.686	6.197		8.35	7.66	9.0	30.0
Perfluorooctanesulfonamide	AveID	0.9919	1.081		8.72	8.00	9.0	30.0
NMeFOSAA	AveID	0.8820	0.9126		8.28	8.00	3.5	30.0
Perfluorodecanesulfonic acid	AveID	0.9543	1.042		8.42	7.71	9.1	30.0
Perfluoroundecanoic acid	AveID	0.7448	0.7895		8.48	8.00	6.0	30.0
NEtFOSAA	AveID	0.9602	1.007		8.39	8.00	4.9	30.0
10:2 FTUCA	AveID	0.9614	0.9278		7.72	8.00	-3.5	30.0
11Cl-PF3OUdS	AveID	1.038	0.9902		7.10	7.44	-4.6	30.0
10:2 FTCA	AveID	0.9726	1.015		8.35	8.00	4.3	30.0
Perfluorododecanoic acid	AveID	0.9122	0.9510		8.34	8.00	4.3	30.0
10:2 FTS	AveID	4.224	4.214		7.69	7.71	-0.2	30.0
NMeFOSE	AveID	1.015	1.122		8.84	8.00	10.5	30.0
NMeFOSA	AveID	0.9755	1.092		8.96	8.00	12.0	30.0
Perfluorododecanesulfonic acid	AveID	0.8525	0.8713		7.91	7.74	2.2	30.0
NEtFOSE	AveID	1.006	1.062		8.44	8.00	5.5	30.0
NEtFOSA	AveID	1.045	1.194		9.14	8.00	14.2	30.0
Perfluorotridecanoic acid	AveID	0.7915	0.7988		8.07	8.00	0.9	30.0
HFPO-TeA	AveID	0.0162	0.0159		38.7	39.6	-2.2	30.0
Perfluorotetradecanoic acid	AveID	0.8830	0.8516		7.72	8.00	-3.6	30.0
Perfluorohexadecanoic acid	AveID	0.5823	0.6159		8.46	8.00	5.8	30.0
Perfluorooctadecanoic acid	AveID	0.4186	0.4393		8.40	8.00	5.0	30.0
13C4 PFBA	Ave	1.081	1.068		9.88	10.0	-1.2	30.0
13C5 PFPeA	Ave	0.8754	0.8816		10.1	10.0	0.7	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-229099/12 Calibration Date: 03/02/2022 11:55

Instrument ID: 30728 Calib Start Date: 03/01/2022 21:15

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 03/01/2022 22:21

Lab File ID: 22MAR02-20.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C3 PFBS	Ave	0.8850	0.8837		9.29	9.30	-0.2	30.0
M2-4:2 FTS	Ave	0.1411	0.1653		10.9	9.34	17.2	30.0
13C5 PFHxA	Ave	1.160	1.173		10.1	10.0	1.1	30.0
13C3 HFPO-DA	Ave	0.2724	0.2641		9.70	10.0	-3.0	30.0
13C3 PFHxS	Ave	0.8246	0.8310		9.53	9.46	0.8	30.0
13C4 PFHpA	Ave	1.250	1.323		10.6	10.0	5.8	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	0.6822	0.7189		10.5	10.0	5.4	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.1074	0.1117		10.4	10.0	4.1	30.0
M2-6:2 FTS	Ave	0.0505	0.0515		9.69	9.50	2.0	30.0
13C8 PFOA	Ave	1.224	1.268		10.4	10.0	3.6	30.0
13C8 PFOS	Ave	0.9689	0.9617		9.49	9.56	-0.7	30.0
13C9 PFNA	Ave	0.9487	0.9352		9.86	10.0	-1.4	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	0.6098	0.6505		10.7	10.0	6.7	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.0686	0.0678		9.88	10.0	-1.2	30.0
13C6 PFDA	Ave	0.9544	0.9430		9.88	10.0	-1.2	30.0
M2-8:2 FTS	Ave	0.0248	0.0254		9.84	9.58	2.7	30.0
13C8 FOSA	Ave	1.232	1.228		9.97	10.0	-0.3	30.0
d3-NMeFOSAA	Ave	0.2683	0.2581		9.62	10.0	-3.8	30.0
13C7 PFUnA	Ave	1.010	1.002		9.92	10.0	-0.8	30.0
d5-NEtFOSAA	Ave	0.1916	0.1862		9.72	10.0	-2.8	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.5368	0.5656		10.5	10.0	5.4	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0499	0.0467		9.35	10.0	-6.5	30.0
13C2-PFDoDA	Ave	0.7697	0.7573		9.84	10.0	-1.6	30.0
d7-N-MeFOSE-M	Ave	0.2005	0.1981		9.88	10.0	-1.2	30.0
d3-NMePFOSA	Ave	0.1275	0.1200		9.41	10.0	-5.9	30.0
d9-N-EtFOSE-M	Ave	0.2271	0.2243		9.88	10.0	-1.2	30.0
d5-NEtPFOSA	Ave	0.1185	0.1118		9.43	10.0	-5.7	30.0
13C2 PFTeDA	Ave	0.6192	0.5850		9.45	10.0	-5.5	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-20.d
Lims ID: CCV 3_CAL4
Client ID:
Sample Type: CCV
Inject. Date: 02-Mar-2022 11:55:39 ALS Bottle#: 20005 Worklist Smp#: 12
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: CCV 3_CAL4
Misc. Info.: Plate: 1 Rack: 1 410-0051478-012
Operator ID: US19_USR_INS20261 Instrument ID: 30728
Sublist: chrom-PFAS_30728_XList*sub16

Method: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 12:25:53 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617

First Level Reviewer: glicka Date: 02-Mar-2022 12:19:58
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.066	1.065	0.001	0.279	1332527	8.13		104	25684	
1 MTP										
175.00 > 97.00	1.527	1.518	0.009	0.400	502313	8.45		106	11593	
2 PPF Acid										
163.00 > 119.00	1.880	1.874	0.006	0.493	2399312	8.33		104	7576	
3 PFMOAA										
179.00 > 85.00	2.899	2.891	0.008	0.760	2060864	8.38		105	17191	
4 R-PSDA										
441.00 > 241.00	3.794	3.792	0.002	0.850	180153	8.74		109	10082	
5 R-EVE										
405.00 > 217.00	3.794	3.793	0.001	0.995	499333	8.92		112	37481	
D 6 13C4 PFBA										
217.00 > 172.00	3.815	3.816	-0.001	1.000	6143484	9.88		98.8	143994	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.815	3.816	-0.001	1.000	4407794	8.33		104	16926	
* 8 13C3-PFBA										
216.00 > 172.00	3.815	3.817	-0.002		2876700	5.00			10137	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.815	3.817	-0.002	0.855	713715	9.09		114	35714	
10 PMPA										
229.00 > 185.00	3.954	3.956	-0.002	1.036	2736756	8.72		109	35350	
11 PFPrS										
249.00 > 99.00	4.016	4.020	-0.004	1.053	1102919	7.82		107	56369	
12 NVHOS										
297.00 > 135.00	4.064	4.060	0.004	0.911	1114909	8.15		102	55843	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 PFECA F										
229.00 > 85.00	4.084	4.082	0.002	1.070	4852076	8.32		104	13842	
14 PFO2HxA										
245.00 > 85.00	4.280	4.286	-0.006	1.122	1944528	8.41		105	91308	
15 3:3 FTCA										
241.00 > 177.00	4.406	4.403	0.003	1.000	334545	8.35		104	20471	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.406	4.404	0.002	1.000	4999020	8.49		106	26639	
D 17 13C5 PFPeA										
268.00 > 223.00	4.406	4.404	0.002	1.155	5072172	10.1		101	135768	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.464	4.460	0.004	1.000	3646991	7.42	Target=3.14	105	58583	
299.00 > 99.00	4.455	4.460	-0.005	0.998	1155381		3.16(1.57-4.71)		40227	
D 19 13C3 PFBS										
302.00 > 80.00	4.464	4.462	0.002	1.170	4728349	9.29		99.8	249131	
20 PEPA										
279.00 > 235.00	4.518	4.517	0.001	1.184	969327	8.85		111	24970	
21 PFECA A										
279.00 > 85.00	4.537	4.543	-0.006	1.017	4318814	8.34		104	175608	
22 PES										
315.00 > 135.00	4.638	4.638	0.0	1.039	10868225	7.47		105	591738	
23 PFECA B										
201.00 > 85.00	4.767	4.771	-0.004	1.068	6754207	8.47	Target=1.81	106	99882	
295.00 > 201.00	4.767	4.771	-0.004	1.068	3786227		1.78(0.90-2.71)		199726	
110 FBSA										
299.00 > 78.00	4.787	4.792	-0.005	1.072	215484	8.58		107	14753	
24 4:2 FTS										
327.00 > 307.00	4.807	4.803	0.004	1.000	1973316	7.88	Target=1.33	105	135620	
327.00 > 81.00	4.807	4.803	0.004	1.000	1351616		1.46(0.66-1.99)		69356	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.807	4.806	0.001	0.854	882551	10.9		117	60449	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.846	4.843	0.003	1.000	4342747	8.36	Target=12.64	104	65934	
313.00 > 119.00	4.836	4.843	-0.007	0.998	319539		13.59(6.32-18.96)		12571	
D 27 13C5 PFHxA										
318.00 > 273.00	4.846	4.846	0.0	0.861	6705042	10.1		101	263757	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.866	4.863	0.003	1.090	3785046	8.10	Target=3.66	108	185657	
349.00 > 99.00	4.866	4.863	0.003	1.090	1002861		3.77(1.83-5.49)		65203	
29 PFO3OA										
311.00 > 85.00	4.906	4.903	0.003	1.286	2358340	8.29		104	152646	
30 HFPO-DA										
329.00 > 285.00	4.979	4.978	0.001	0.998	1573553	8.44		105	34650	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.989	4.983	0.006	0.886	1510040	9.70		97.0	74924	
32 Hydro-EVE Acid										
427.00 > 283.00	5.201	5.201	0.0	1.363	7713202	9.13		114	1623882	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
33 R-PSDCA										
397.00 > 217.00	5.212	5.209	0.003	1.168	11017697	8.79		110	507137	
108 FBSEE										
386.00 > 166.00	5.212	5.220	-0.008	1.168	243256	9.03	Target=1.76	113	15231	
386.00 > 80.00	5.212	5.220	-0.008	1.168	134643		1.81(0.88-2.64)		8353	
34 Hydro-PS Acid										
463.00 > 263.00	5.266	5.246	0.020	1.180	7489805	8.81		110	240100	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.256	5.254	0.002	1.000	3548891	7.70	Target=3.57	106	7595	
399.00 > 99.00	5.256	5.254	0.002	1.000	985806		3.60(1.78-5.35)		1442	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.256	5.254	0.002	1.000	5861268	8.46	Target=3.54	106	180918	
363.00 > 169.00	5.256	5.254	0.002	1.000	1600346		3.66(1.77-5.31)		29621	
D 37 13C3 PFHxS										
402.00 > 80.00	5.256	5.254	0.002	0.933	4494130	9.53		101	278553	
D 38 13C4 PFHpA										
367.00 > 322.00	5.256	5.255	0.001	0.933	7565279	10.6		106	234586	
39 DONA										
377.00 > 251.00	5.310	5.303	0.007	1.010	6500814	7.43		98.3	244654	
40 PFECA G										
379.00 > 185.00	5.320	5.322	-0.002	1.395	8441396	8.52		106	268014	
41 5:3 FTCA										
341.00 > 237.00	5.341	5.338	0.003	1.016	1129840	8.73	Target=3.04	109	36172	
341.00 > 217.00	5.341	5.338	0.003	1.016	366182		3.09(1.52-4.55)		17620	
42 6:2 FTUCA										
357.00 > 293.00	5.360	5.359	0.001	1.000	4452740	8.74		109	221740	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.360	5.361	-0.001	0.952	4109637	10.5		105	138987	
44 6:2 FTCA										
377.00 > 293.00	5.378	5.378	0.0	1.000	537505	8.14		102	22497	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.378	5.379	-0.001	0.955	638735	10.4		104	43935	
46 PFO4DA										
377.00 > 85.00	5.437	5.435	0.002	1.425	2941728	8.49		106	980	
47 PS Acid										
443.00 > 147.00	5.480	5.479	0.001	1.228	2688367	8.91		111	141208	
48 EVE Acid										
407.00 > 263.00	5.499	5.500	-0.001	1.441	7858295	9.05		113	234506	
49 PFECHS										
461.00 > 381.00	5.577	5.569	0.008	1.061	4926634	7.94	Target=1.56	107	254189	
461.00 > 99.00	5.568	5.569	-0.001	1.060	3143024		1.57(0.78-2.34)		216140	
50 6:2 FTS										
427.00 > 407.00	5.612	5.613	-0.001	0.998	936277	8.74	Target=1.19	115	63441	
427.00 > 81.00	5.612	5.613	-0.001	0.998	771640		1.21(0.60-1.79)		40223	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.621	5.614	0.007	0.998	279447	9.69		102	18686	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.621	5.618	0.003	1.069	3755113	8.22	Target=3.73	108	194471	
449.00 > 99.00	5.621	5.618	0.003	1.069	984973		3.81(1.87-5.60)		50769	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.630	5.630	0.0	1.000	4439051	8.20	Target=2.20	103	529207	
413.00 > 169.00	5.630	5.630	0.0	1.000	1818180		2.44(1.10-3.30)		667860	
D 54 13C8 PFOA										
421.00 > 376.00	5.630	5.631	-0.001	1.000	7251602	10.4		104	291913	
* 55 13C2 PFOA										
415.00 > 370.00	5.630	5.631	-0.001		2858407	5.00			191553	
106 FHxSA										
399.00 > 78.00	5.689	5.692	-0.003	1.083	267155	8.82		110	18051	
56 TAF										
443.00 > 85.00	5.883	5.879	0.004	1.542	2786989	8.51		106	48755	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.957	5.954	0.003	1.000	3787429	7.44	Target=4.38	100	1087753	
499.00 > 99.00	5.957	5.954	0.003	1.000	802397		4.72(2.19-6.58)		1359	
* 59 13C4 PFOS										
503.00 > 80.00	5.957	5.955	0.002		2591625	4.78			138964	
D 58 13C8 PFOS										
507.00 > 80.00	5.957	5.955	0.002	1.000	4981953	9.49		99.3	48467	
61 Perfluorononanoic acid										
463.00 > 419.00	5.974	5.973	0.001	1.000	3868526	8.76	Target=3.95	110	138637	
463.00 > 169.00	5.974	5.973	0.001	1.000	929356		4.16(1.97-5.92)		33502	
D 60 13C9 PFNA										
472.00 > 427.00	5.974	5.975	-0.001	1.003	5068040	9.86		98.6	267035	
109 HFPO-TrA										M
496.00 > 185.00	6.074	6.068	0.006	1.217	122056	53.4		133	8711	M
62 7:3 FTCA										
441.00 > 337.00	6.084	6.077	0.007	1.131	1265816	8.16		102	42053	
63 8:2 FTUCA										
457.00 > 393.00	6.084	6.084	0.0	0.998	3438050	8.37		105	174731	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.094	6.085	0.009	0.969	4354303	10.7		107	146311	
65 8:2 FTCA										
477.00 > 393.00	6.104	6.099	0.005	1.000	395452	8.73		109	26872	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.104	6.102	0.002	0.970	453543	9.88		98.8	30499	
67 9ClFOS										
531.00 > 351.00	6.133	6.130	0.003	1.030	5591230	7.63		103	60008	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.255	6.254	0.001	1.050	4070544	8.06	Target=4.33	105	297015	
549.00 > 99.00	6.255	6.254	0.001	1.050	913868		4.45(2.16-6.49)		67533	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.281	6.279	0.002	1.000	4436452	8.36	Target=7.98	104	136797	
513.00 > 169.00	6.281	6.279	0.002	1.000	544691		8.14(3.99-11.97)		23402	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 71 13C6 PFDA										
519.00 > 474.00	6.281	6.282	-0.001	0.999	6312493	9.88		98.8	448400	
* 70 13C2 PFDA										
515.00 > 470.00	6.289	6.282	0.007		3347105	5.00			237994	
72 8:2 FTS										
527.00 > 507.00	6.289	6.282	0.007	1.000	808543	8.35	Target=1.01	109	57681	
527.00 > 81.00	6.281	6.282	-0.001	0.999	749393		1.08(0.50-1.51)		32121	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.289	6.285	0.004	1.000	163101	9.84		103	11784	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.374	6.371	0.003	1.000	7107908	8.72		109	457168	
D 74 13C8 FOSA										
506.00 > 78.00	6.374	6.375	-0.001	1.013	8218882	9.97		99.7	399458	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.436	6.428	0.008	1.023	1727950	9.62		96.2	23596	
76 NMeFOSAA										M
570.00 > 419.00	6.436	6.429	0.007	1.000	1261589	8.28	Target=1.69	103	96236	M
570.00 > 483.00	6.426	6.429	-0.003	0.998	763702		1.65(0.85-2.54)		1378	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.527	6.522	0.005	1.096	4186155	8.42	Target=4.28	109	197125	
599.00 > 99.00	6.516	6.522	-0.006	1.094	977925		4.28(2.14-6.42)		46811	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.550	6.550	0.0	0.998	4236912	8.48	Target=7.28	106	47591	
563.00 > 169.00	6.550	6.550	0.0	0.998	569985		7.43(3.64-10.92)		34598	
D 80 13C7 PFUnA										
570.00 > 525.00	6.562	6.557	0.005	1.043	6707956	9.92		99.2	302120	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.574	6.569	0.005	1.045	1246239	9.72		97.2	44701	
82 NEtFOSAA										
584.00 > 419.00	6.574	6.570	0.004	1.000	1003874	8.39	Target=1.63	105	342494	
584.00 > 526.00	6.562	6.570	-0.008	0.998	634236		1.58(0.82-2.45)		1011	
83 10:2 FTUCA										
557.00 > 493.00	6.654	6.654	0.0	0.998	2810177	7.72		96.5	129198	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.665	6.660	0.005	1.060	3786160	10.5		105	173076	
84 11ClFOS										
631.00 > 451.00	6.665	6.660	0.005	1.119	3839280	7.10		95.4	238208	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.675	6.670	0.005	1.061	312747	9.35		93.5	19294	
86 10:2 FTCA										
577.00 > 493.00	6.675	6.670	0.005	1.000	253848	8.35		104	15358	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.791	6.787	0.004	0.998	3856499	8.34	Target=4.76	104	141325	
613.00 > 169.00	6.791	6.787	0.004	0.998	817970		4.71(2.38-7.14)		37772	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.802	6.796	0.006	1.082	5069205	9.84		98.4	184873	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
90 10:2 FTS										
627.00 > 607.00	6.813	6.810	0.003	1.083	553286	7.69	Target=0.75	99.8	34655	
627.00 > 81.00	6.813	6.810	0.003	1.083	772185		0.72(0.38-1.13)		47910	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.813	6.813	0.0	1.083	1326031	9.88		98.8	13159	
92 N-MeFOSE-M										
616.00 > 59.00	6.813	6.820	-0.007	1.000	1190323	8.84		111	22457	
94 NMeFOSA										
512.00 > 169.00	6.833	6.829	0.004	1.000	701834	8.96		112	21893	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.833	6.829	0.004	1.087	803236	9.41		94.1	17117	
95 PFDoS										
699.00 > 80.00	6.971	6.967	0.004	1.170	3516178	7.91		102	244232	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.971	6.973	-0.002	1.108	1501309	9.88		98.8	20643	
97 N-EtFOSE-M										
630.00 > 59.00	6.980	6.981	-0.001	1.001	1275810	8.44		106	43433	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.989	6.995	-0.006	1.111	748107	9.43		94.3	18926	
100 N-EtFOSA-M										
526.00 > 169.00	6.999	6.996	0.003	1.001	714532	9.14		114	18159	
99 Perfluorotridecanoic acid										
663.00 > 619.00	6.999	6.996	0.003	1.029	3239244	8.07	Target=4.11	101	73829	
663.00 > 169.00	6.999	6.996	0.003	1.029	790935		4.10(2.06-6.17)		40940	
105 HFPOTeA										
661.00 > 185.00	7.061	7.058	0.003	1.415	94852	38.7	Target=4.76	97.8	6244	
661.00 > 119.00	7.061	7.058	0.003	1.415	20374		4.66(2.38-7.14)		1302	
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.187	7.181	0.006	1.000	2667856	7.72	Target=4.34	96.4	60048	
713.00 > 169.00	7.178	7.181	-0.003	0.999	640319		4.17(2.17-6.50)		33017	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.187	7.184	0.003	1.143	3915838	9.45		94.5	162404	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.489	7.483	0.006	1.042	1929435	8.46	Target=5.44	106	49477	
813.00 > 169.00	7.479	7.483	-0.004	1.041	332952		5.79(2.72-8.16)		13608	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.722	7.717	0.005	1.074	1376285	8.40	Target=6.37	105	49368	
913.00 > 169.00	7.716	7.717	-0.001	1.074	213852		6.44(3.18-9.55)		15187	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD4_00014 Amount Added: 200.00 Units: uL

Report Date: 02-Mar-2022 12:25:56 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-20.d

Injection Date: 02-Mar-2022 11:55:39 Instrument ID: 30728

Lims ID: CCV 3_CAL4

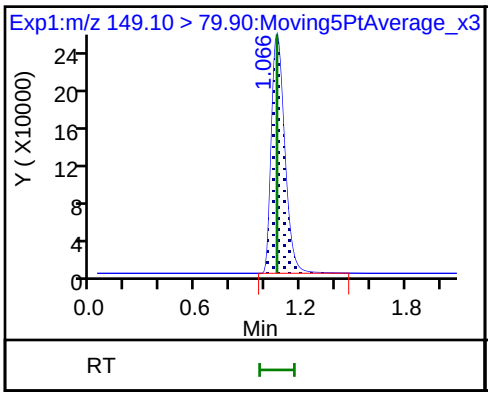
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20005 Worklist Smp#: 12

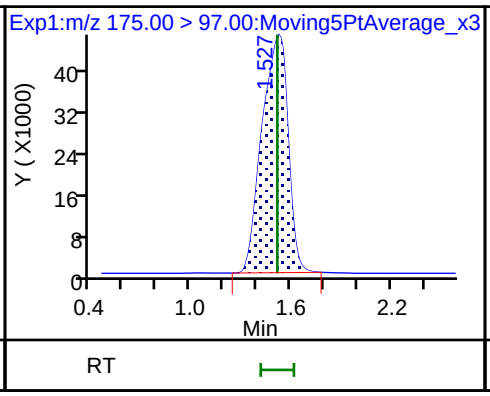
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

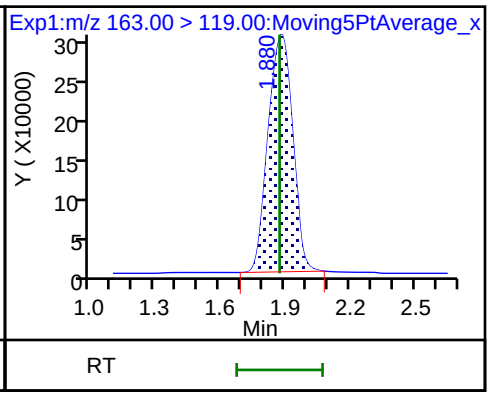
107 Sodium trifluoromethanesulfonate



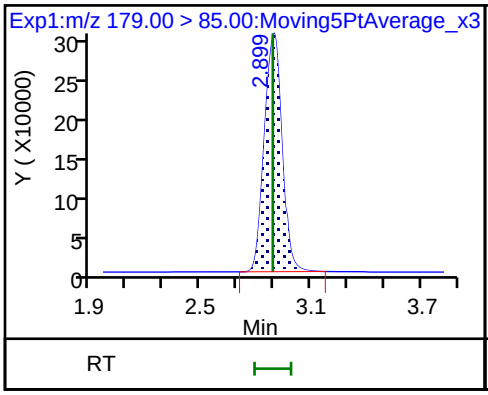
1 MTP



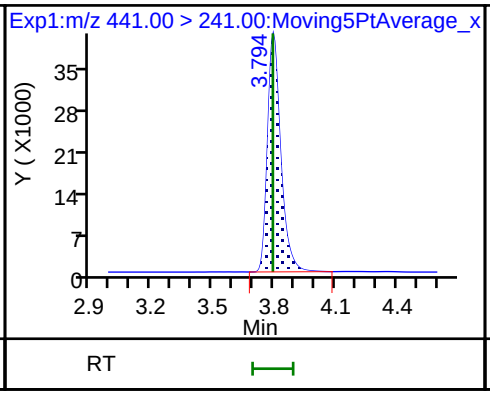
2 PPF Acid



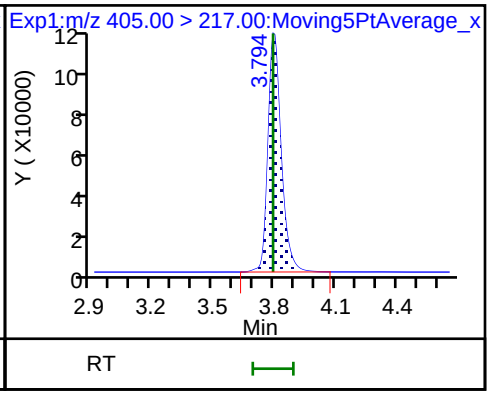
3 PFMOAA



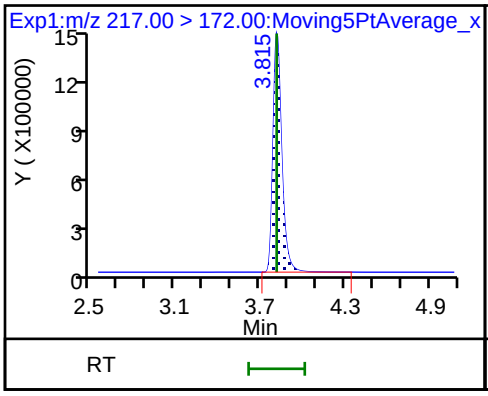
4 R-PSDA



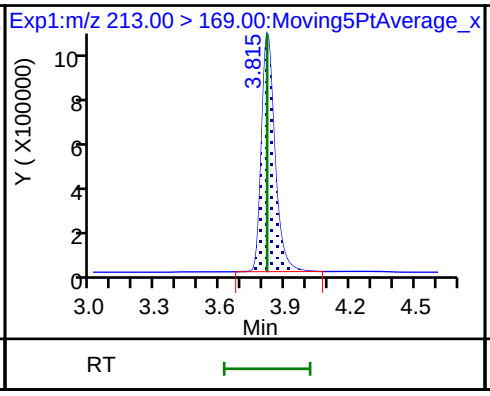
5 R-EVE



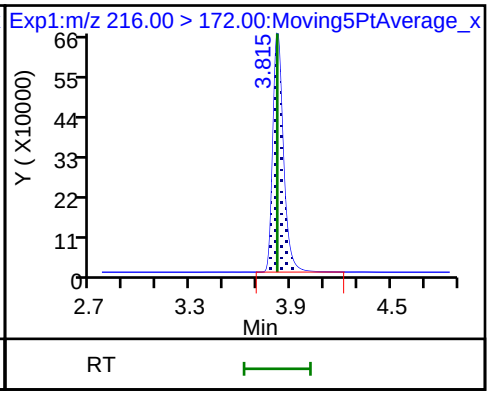
D 6 13C4 PFBA



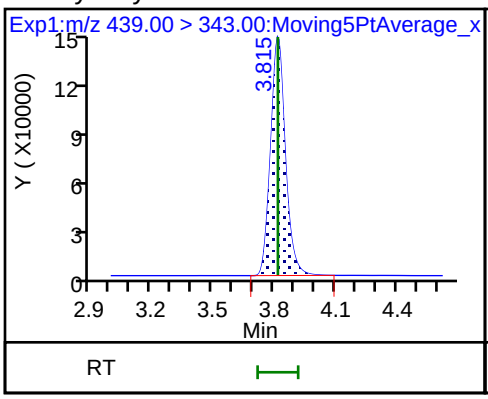
7 Perfluorobutanoic acid



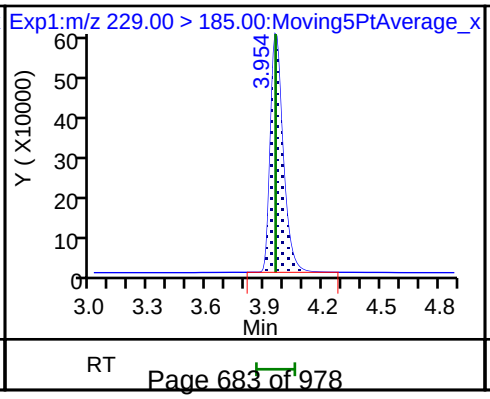
* 8 13C3-PFBA



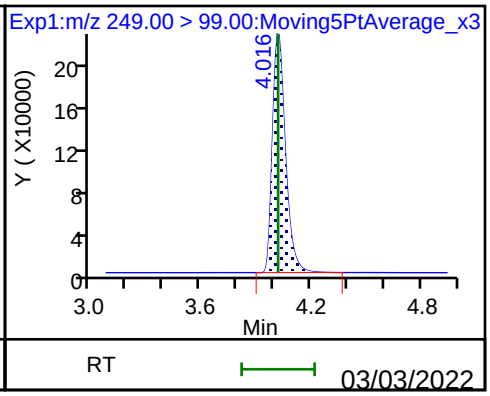
9 Hydrolyzed PSDA



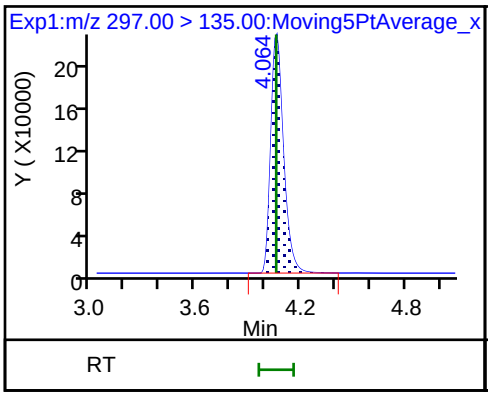
10 PMPA



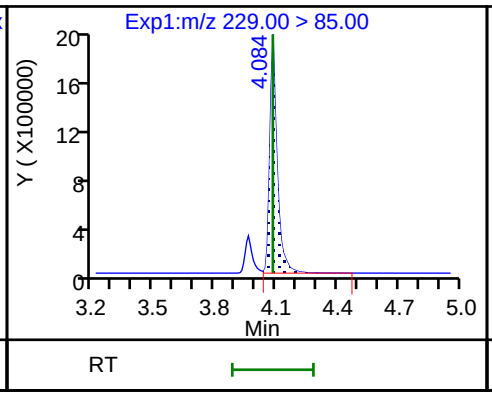
11 PFPrS



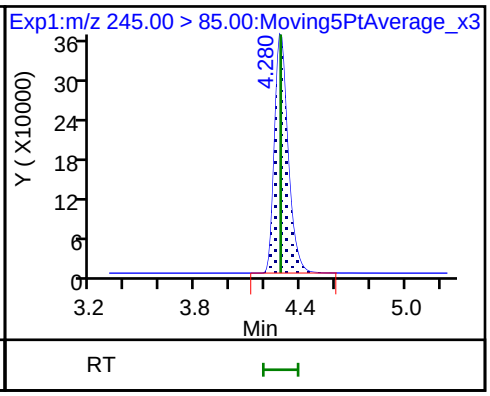
12 NVHOS



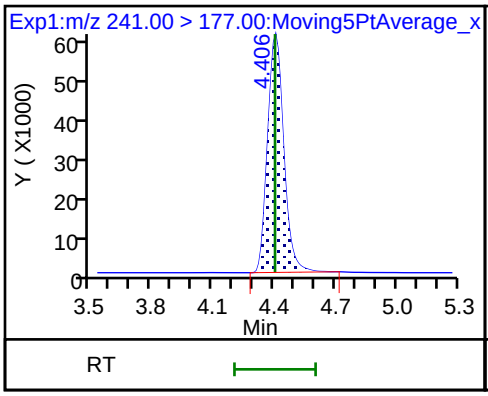
13 PFECA F



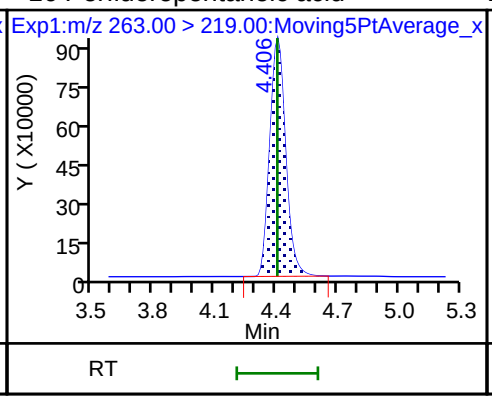
14 PFO2HxA



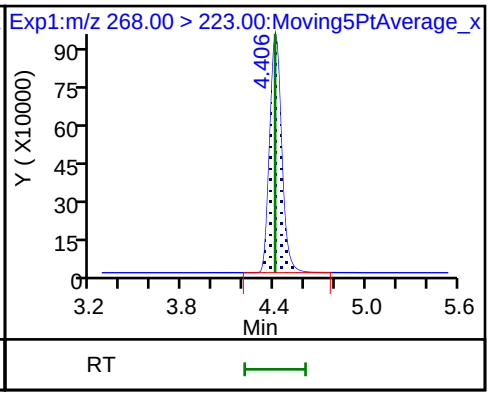
15 3:3 FTCA



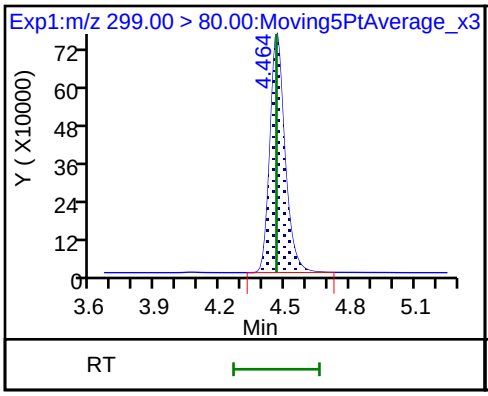
16 Perfluoropentanoic acid



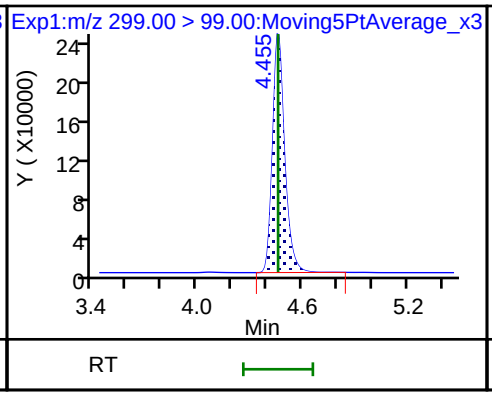
D 17 13C5 PFPeA



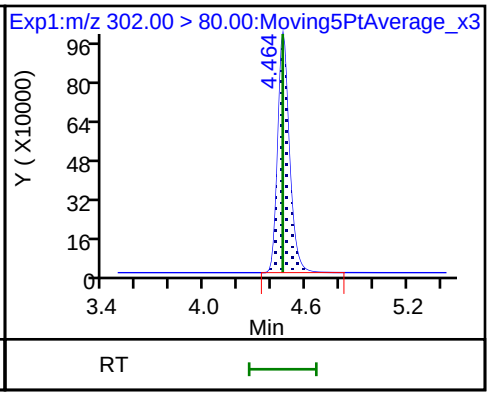
18 Perfluorobutanesulfonic acid



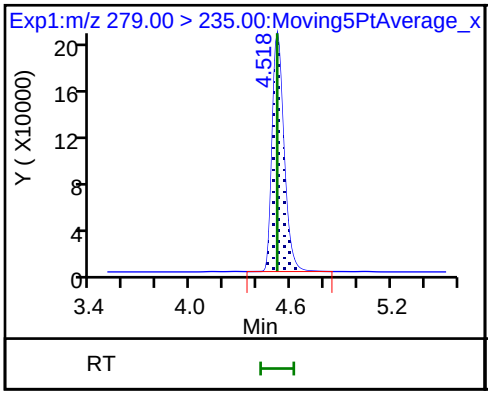
18 Perfluorobutanesulfonic acid



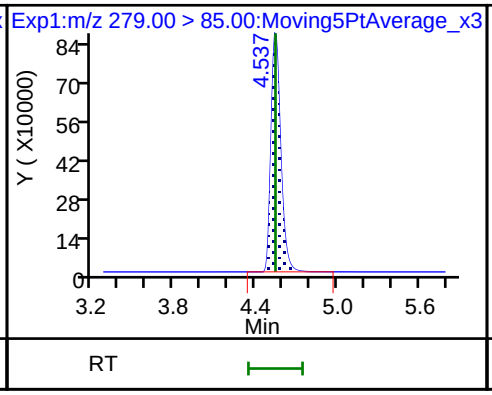
D 19 13C3 PFBS



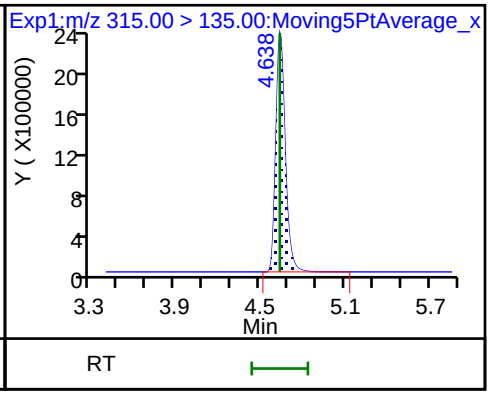
20 PEPA



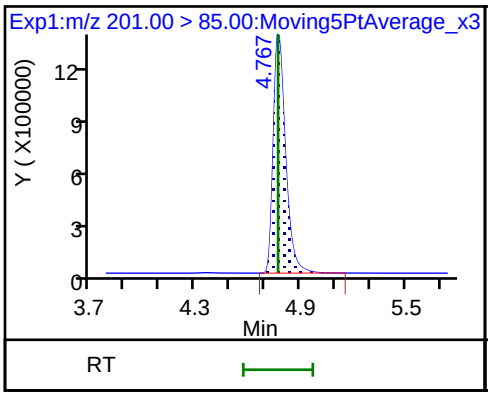
21 PFECA A



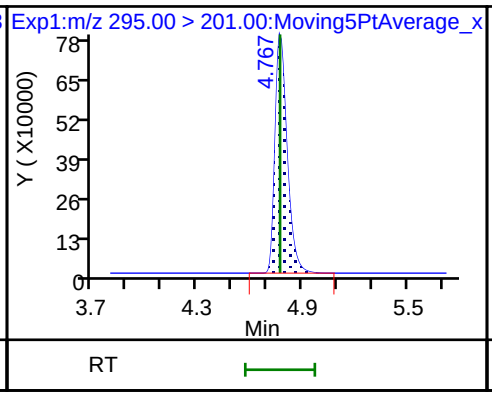
22 PES



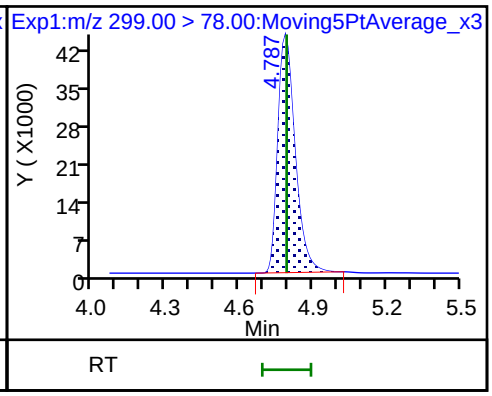
23 PFECA B



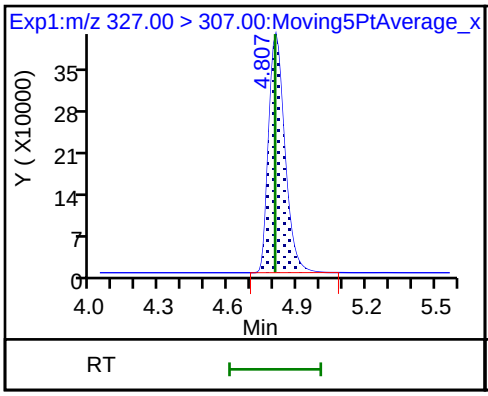
23 PFECA B



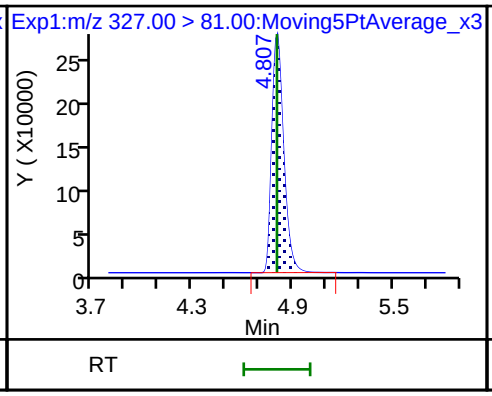
110 FBSA



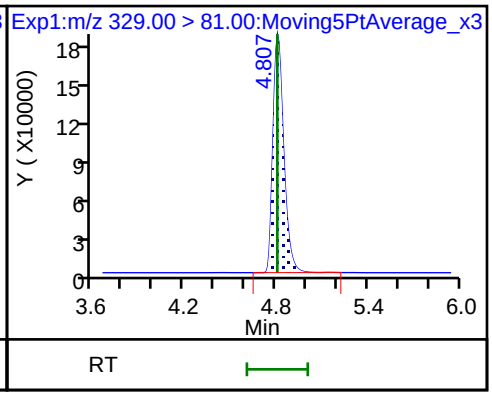
24 4:2 FTS



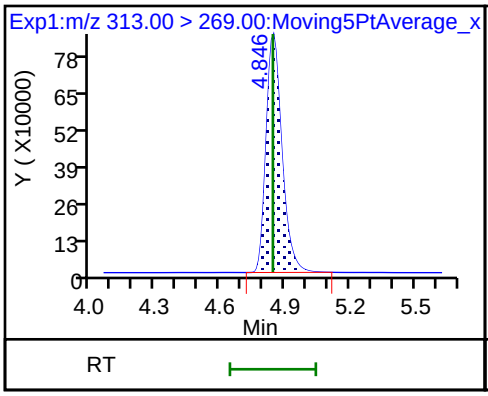
24 4:2 FTS



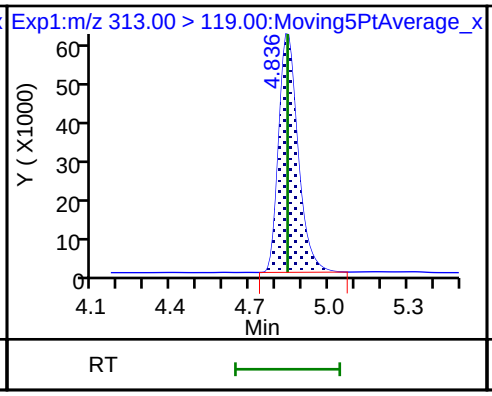
D 25 M2-4:2 FTS



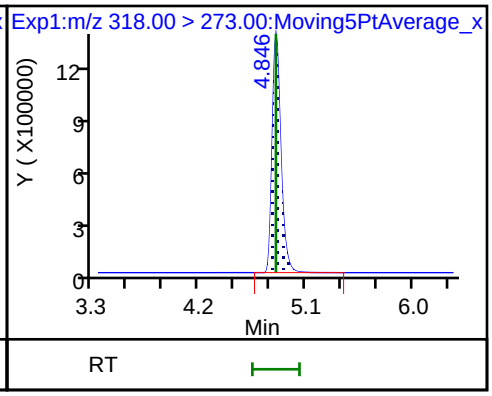
26 Perfluorohexanoic acid



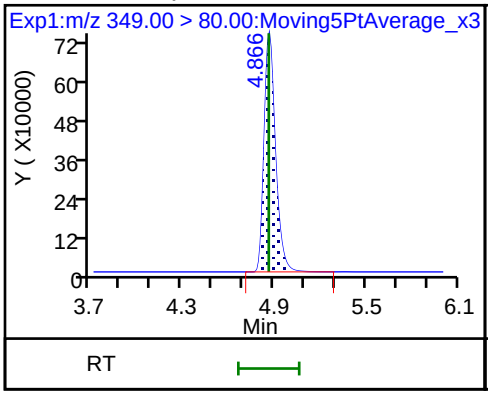
26 Perfluorohexanoic acid



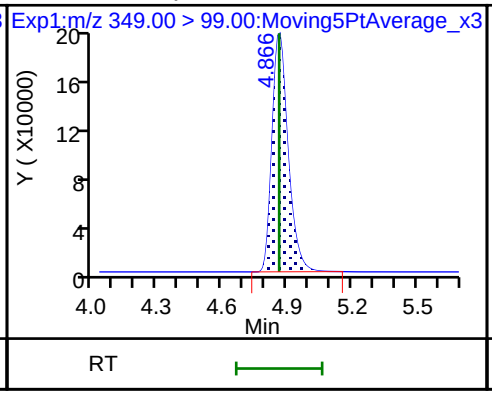
D 27 13C5 PFHxA



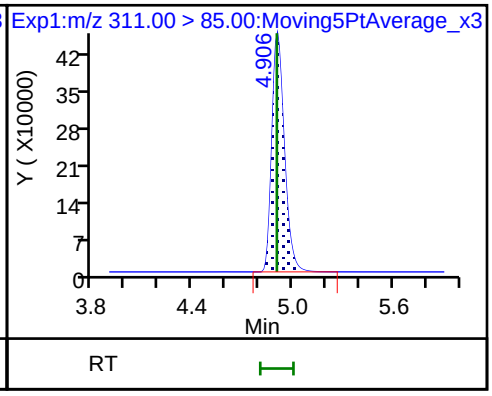
28 Perfluoropentanesulfonic acid



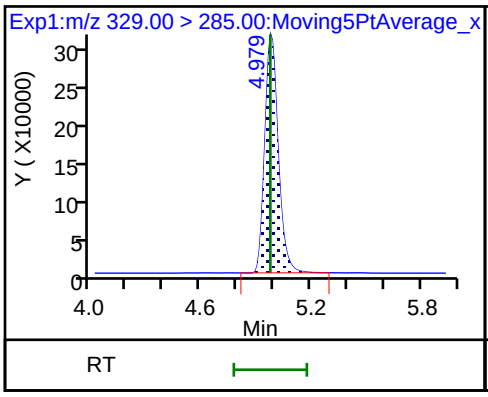
28 Perfluoropentanesulfonic acid



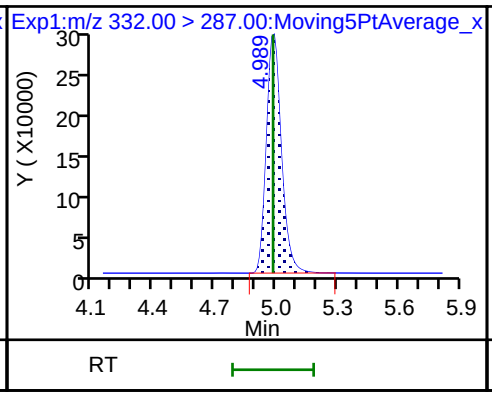
29 PFO3OA



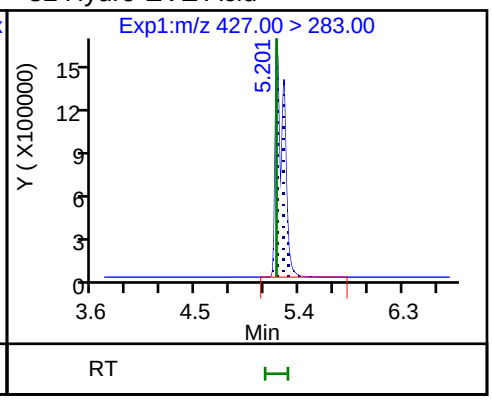
30 HFPO-DA



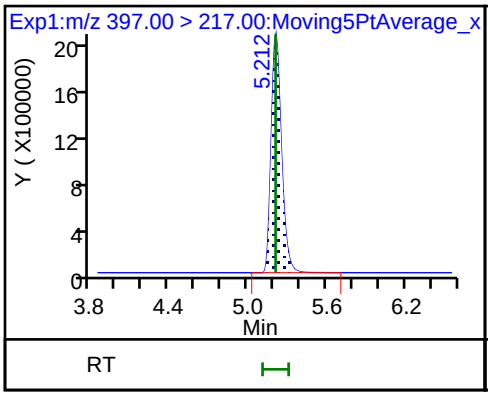
D 31 13C3 HFPO-DA



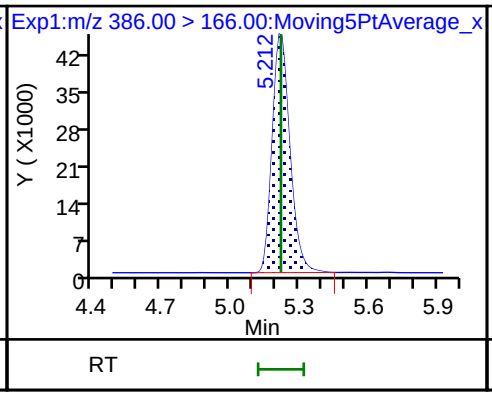
32 Hydro-EVE Acid



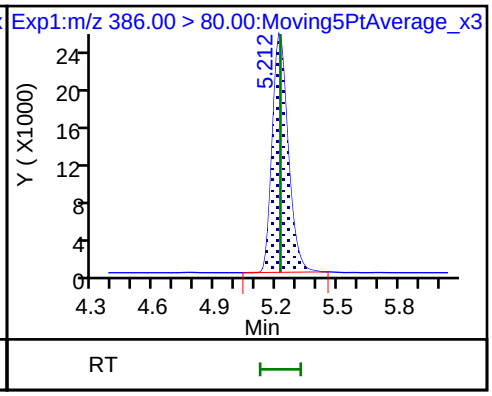
33 R-PSDCA



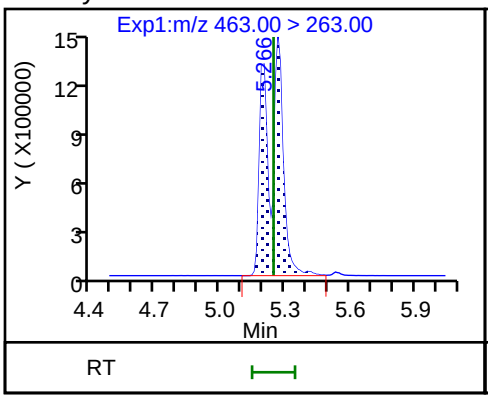
108 FBSEE



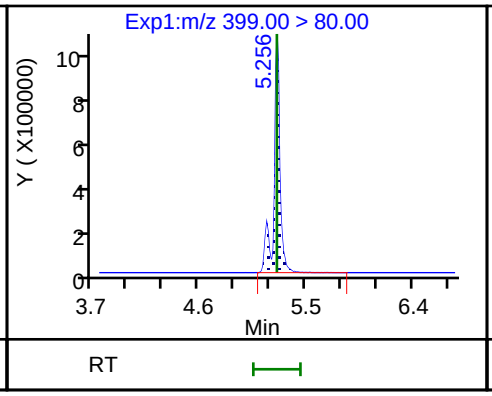
108 FBSEE



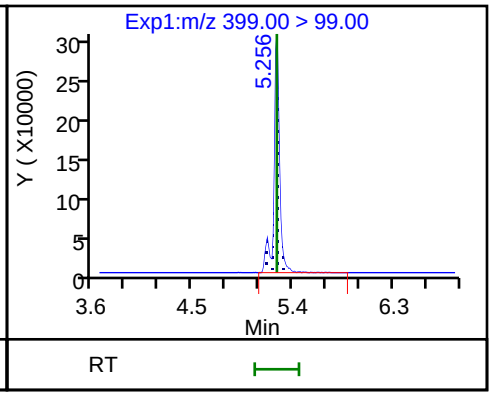
34 Hydro-PS Acid



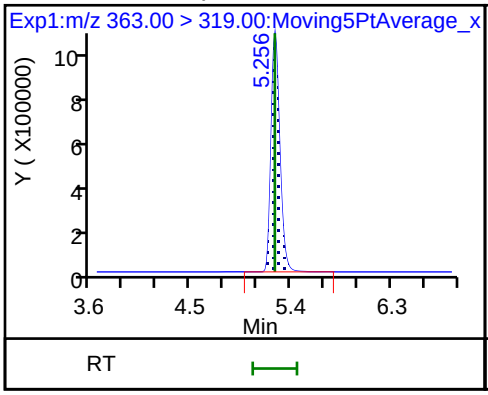
35 Perfluorohexanesulfonic acid



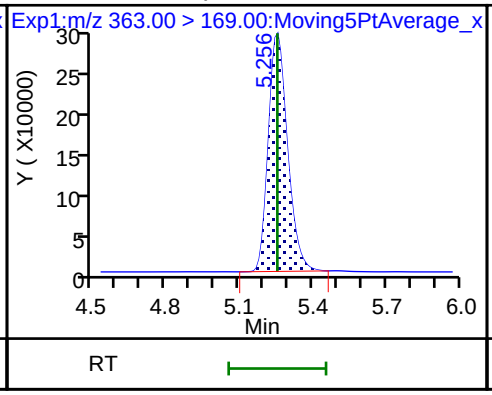
35 Perfluorohexanesulfonic acid



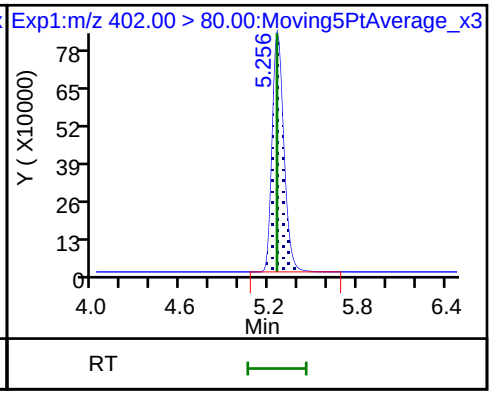
36 Perfluoroheptanoic acid



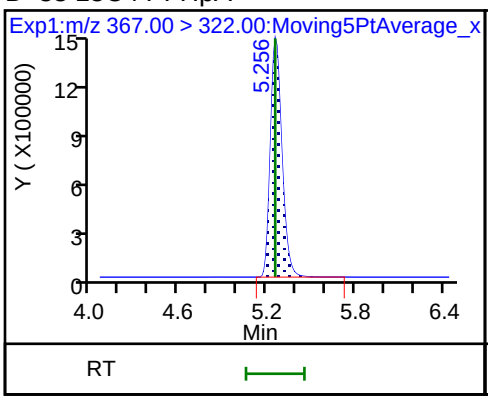
36 Perfluoroheptanoic acid



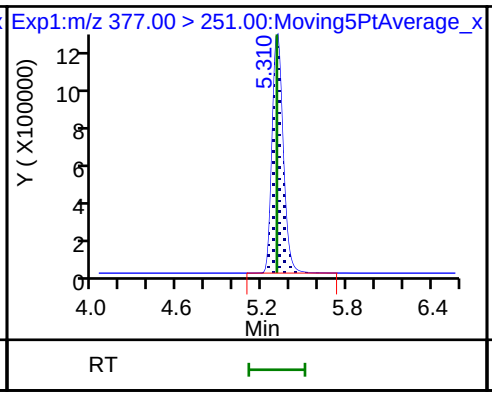
D 37 13C3 PFHxS



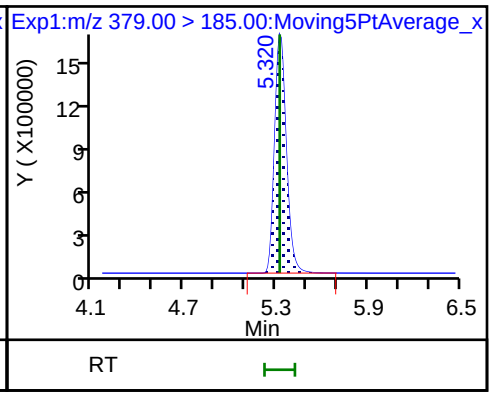
D 38 13C4 PFHpA



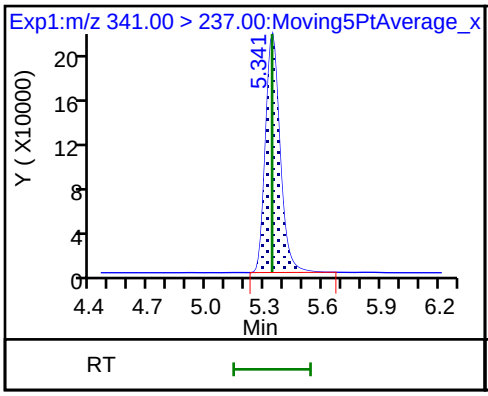
39 DONA



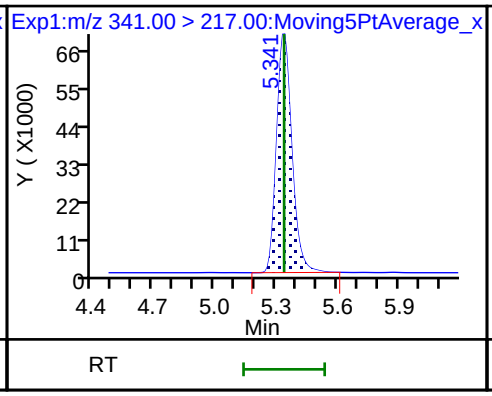
40 PFECA G



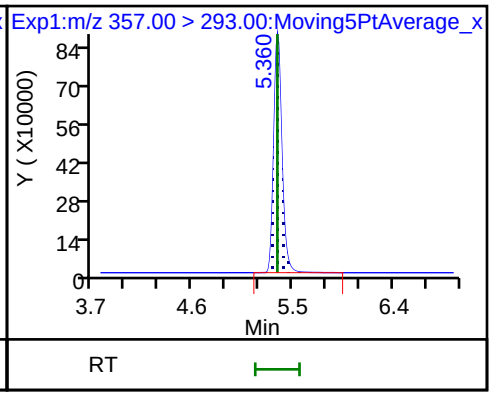
41 5:3 FTCA



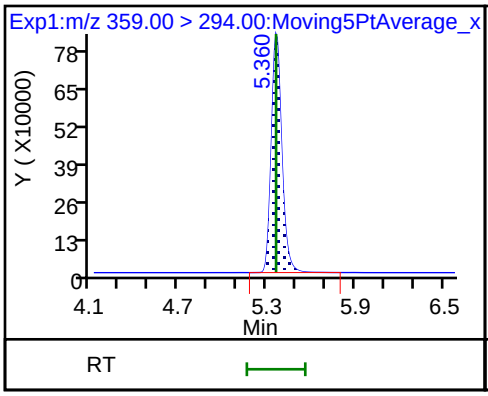
41 5:3 FTCA



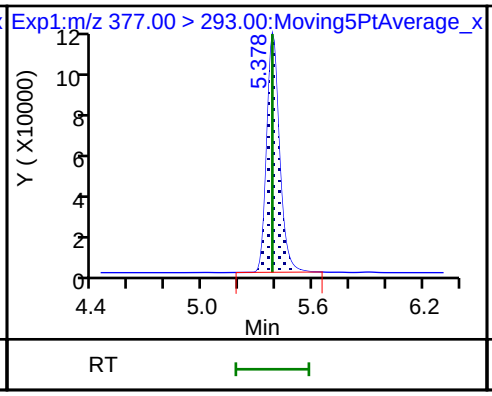
42 6:2 FTUCA



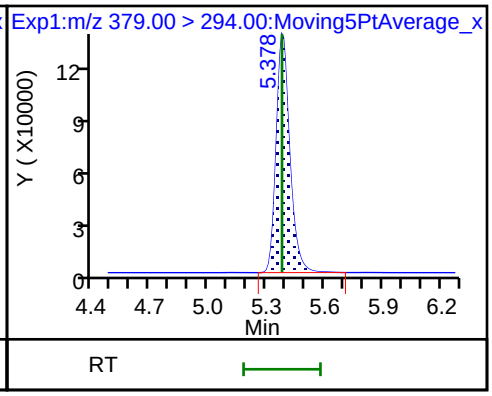
D 43 13C-6:2 FTUCA



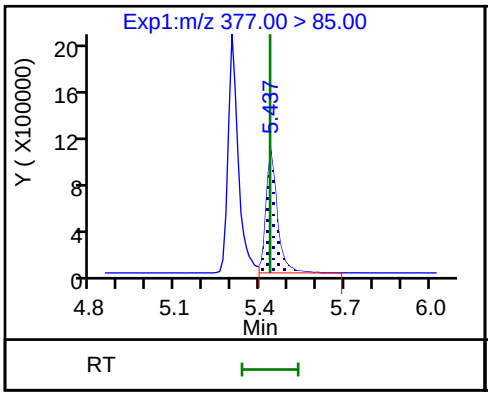
44 6:2 FTCA



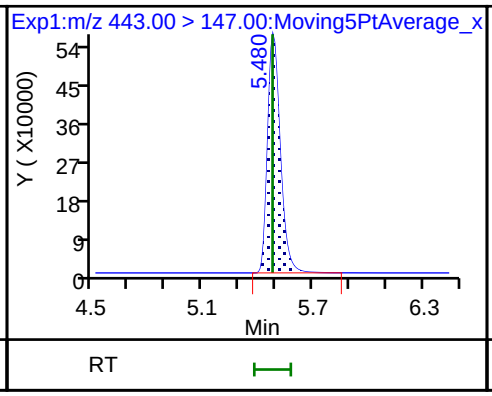
D 45 13C-6:2 FTCA



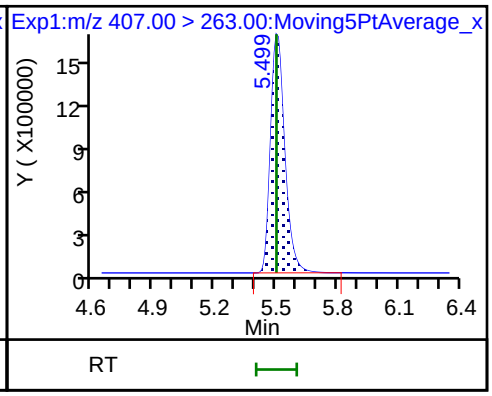
46 PFO4DA



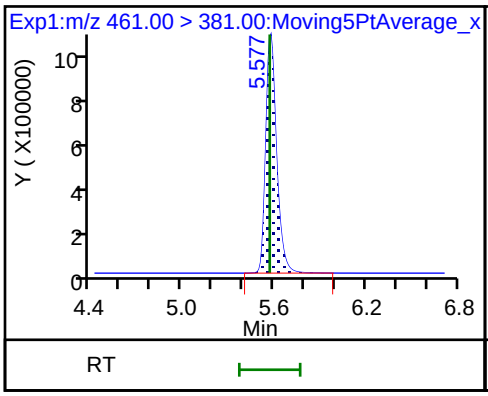
47 PS Acid



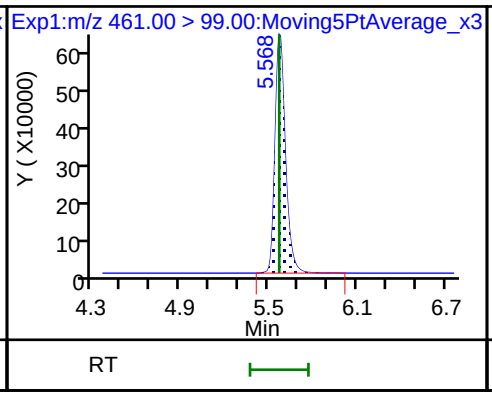
48 EVE Acid



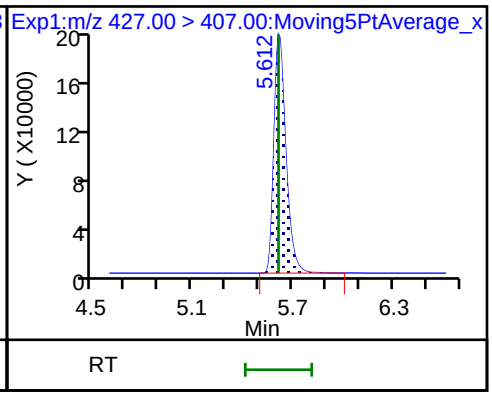
49 PFECHS



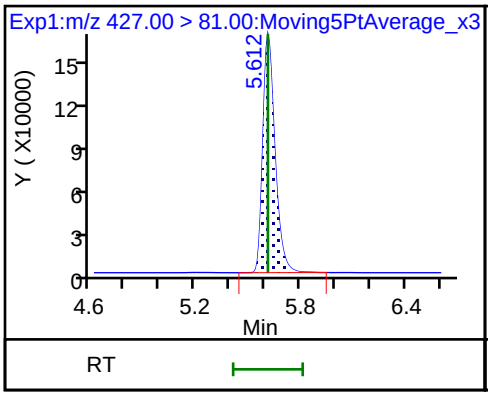
49 PFECHS



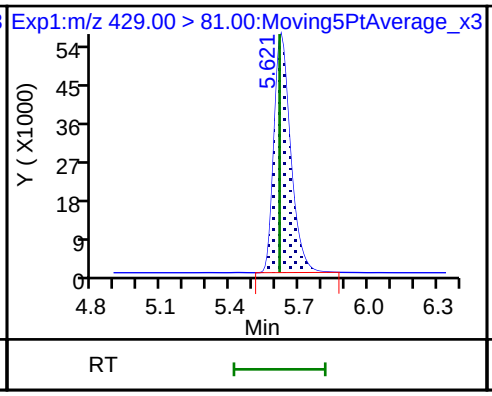
50 6:2 FTS



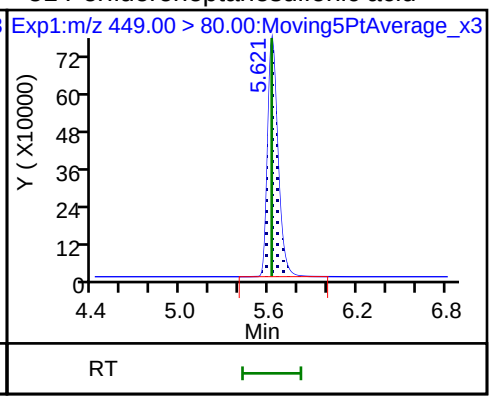
50 6:2 FTS



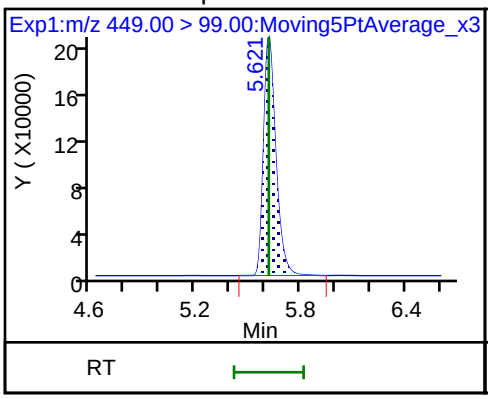
D 52 M2-6:2 FTS



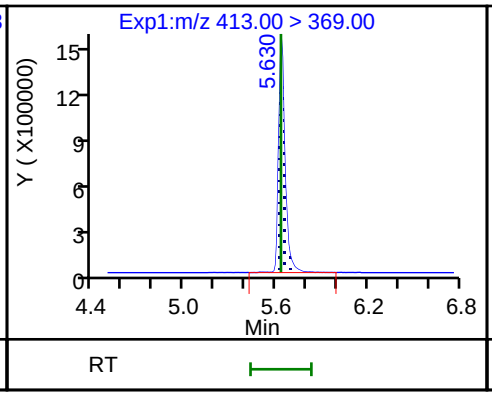
51 Perfluoroheptanesulfonic acid



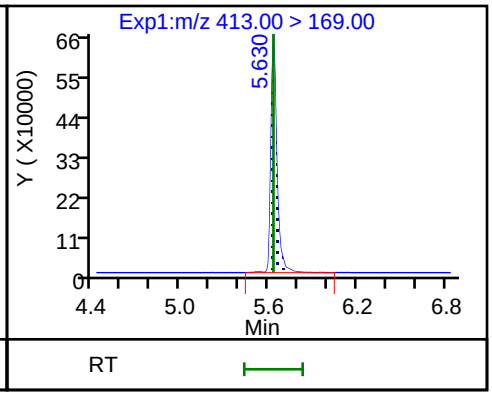
51 Perfluoroheptanesulfonic acid



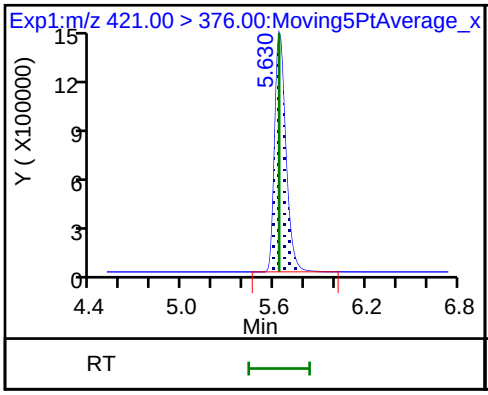
53 Perfluorooctanoic acid



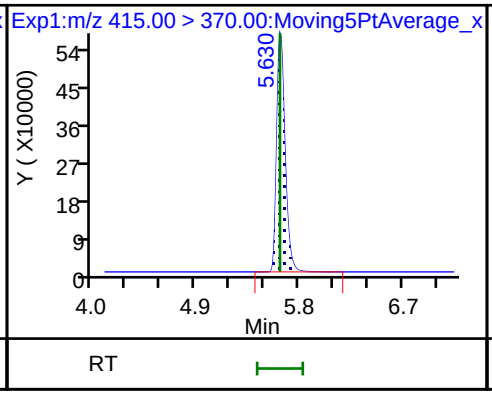
53 Perfluorooctanoic acid



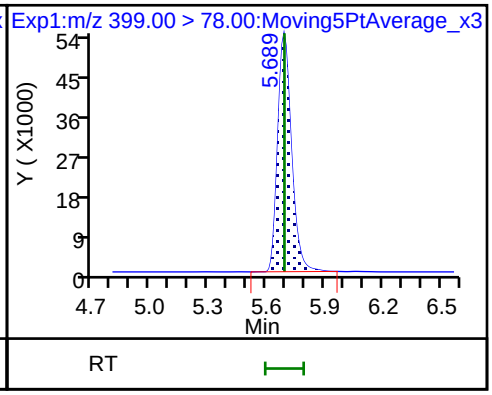
D 54 13C8 PFOA



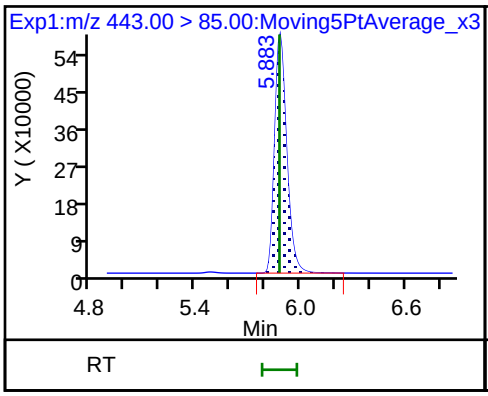
* 55 13C2 PFOA



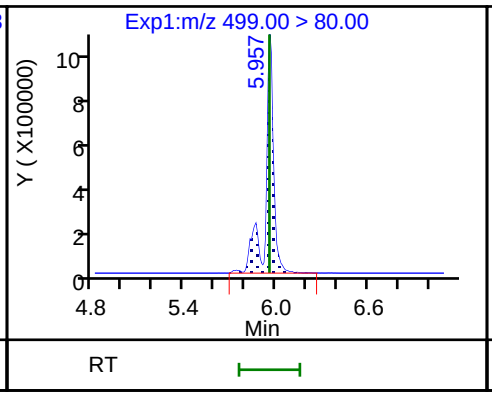
106 FHxSA



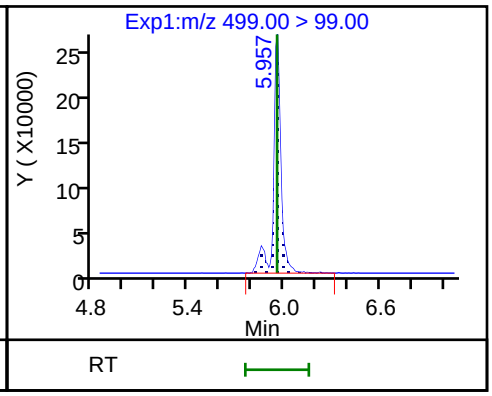
56 TAF



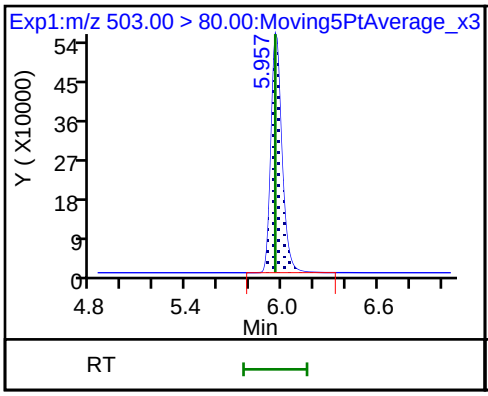
57 Perfluorooctanesulfonic acid



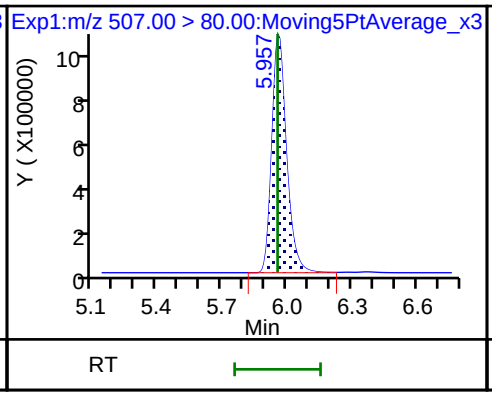
57 Perfluorooctanesulfonic acid



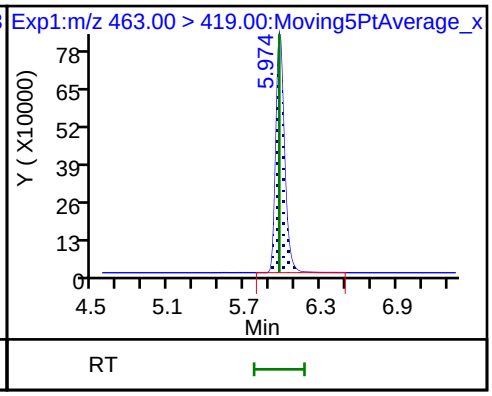
* 59 13C4 PFOS



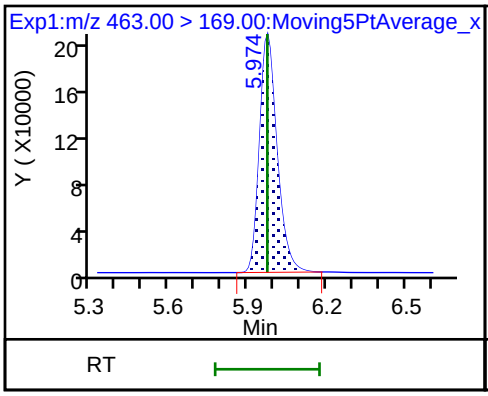
D 58 13C8 PFOS



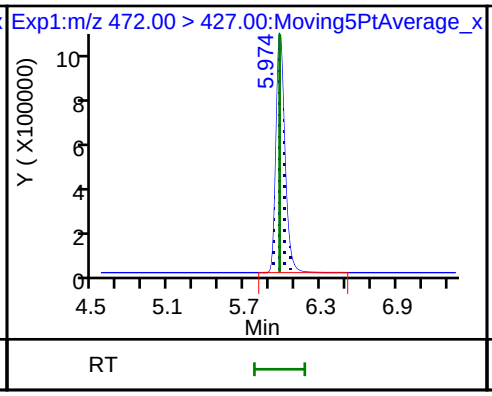
61 Perfluorononanoic acid



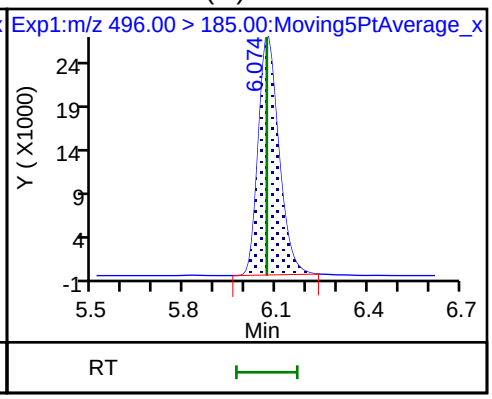
61 Perfluorononanoic acid



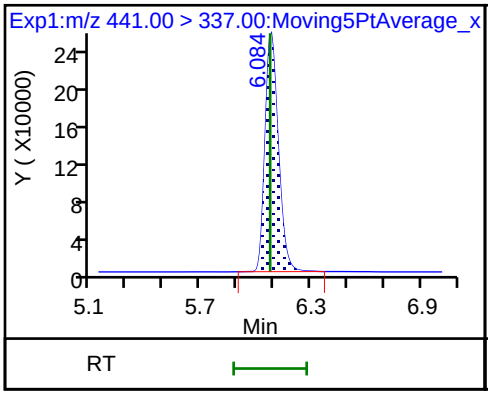
D 60 13C9 PFNA



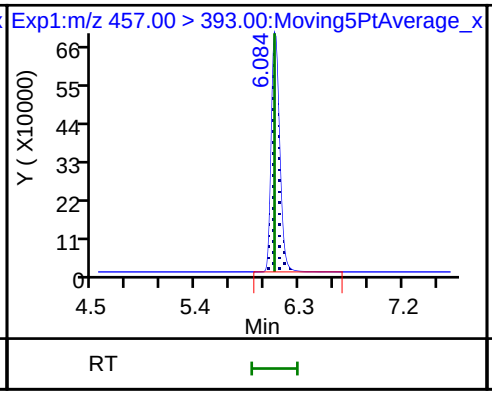
109 HFPO-TrA (M)



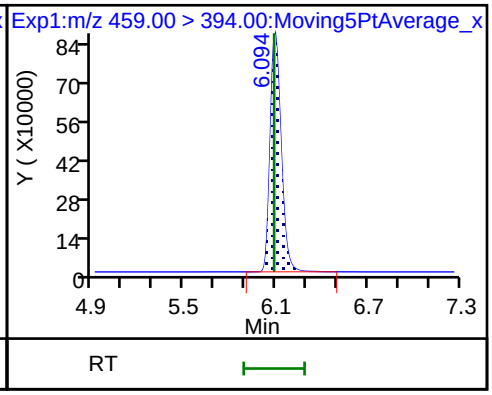
62 7:3 FTCA



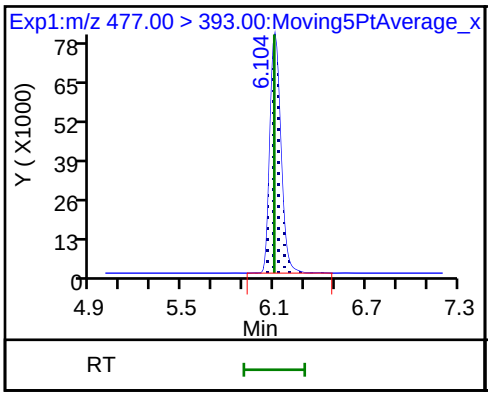
63 8:2 FTUCA



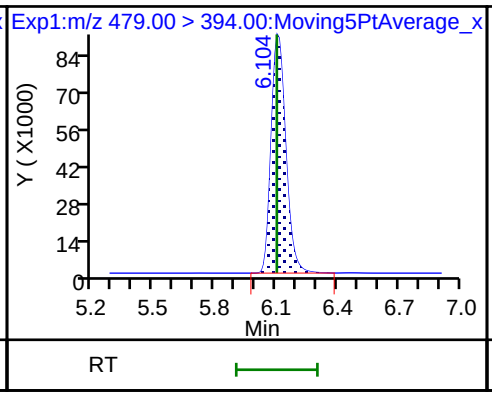
D 64 13C-8:2 FTUCA



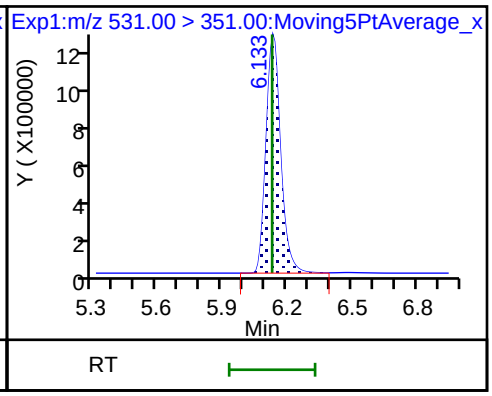
65 8:2 FTCA



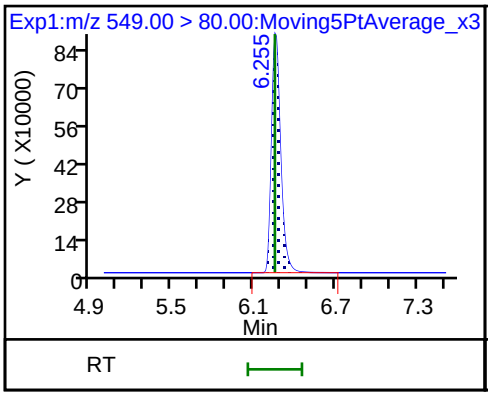
D 66 13C-8:2 FTCA



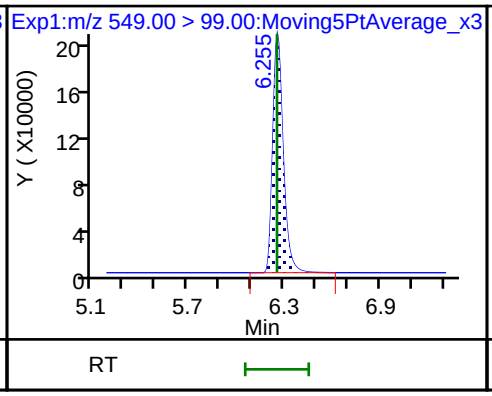
67 9ClFOS



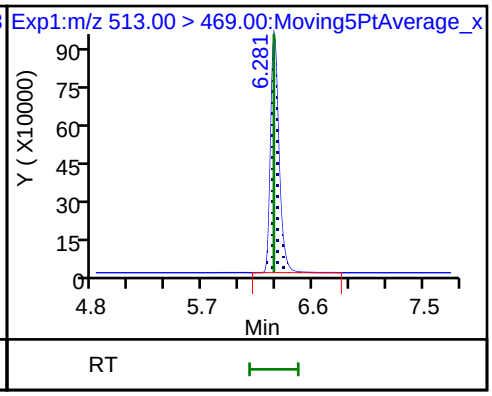
68 Perfluorononanesulfonic acid



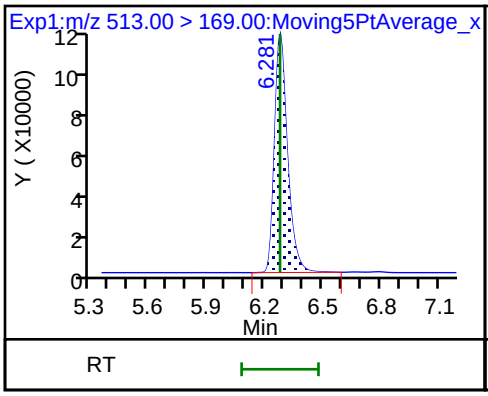
68 Perfluorononanesulfonic acid



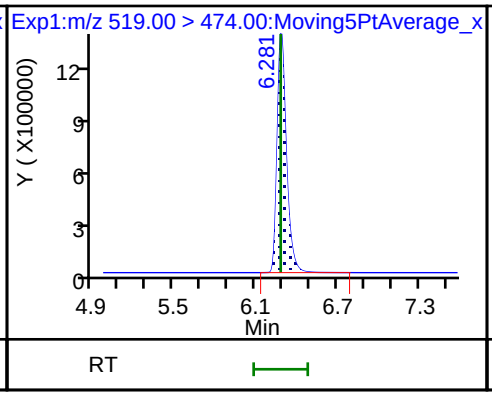
69 Perfluorodecanoic acid



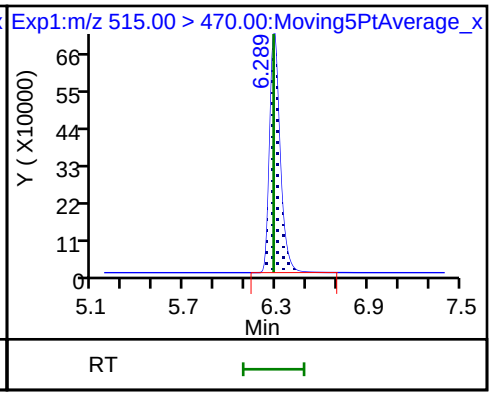
69 Perfluorodecanoic acid



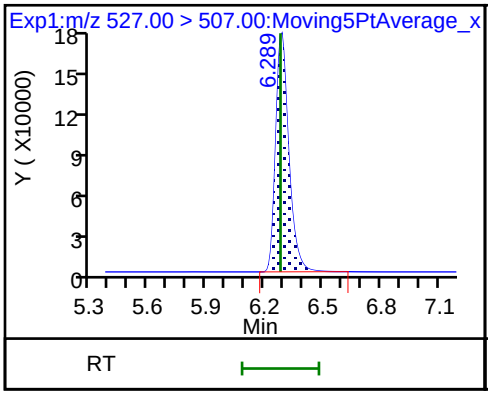
D 71 13C6 PFDA



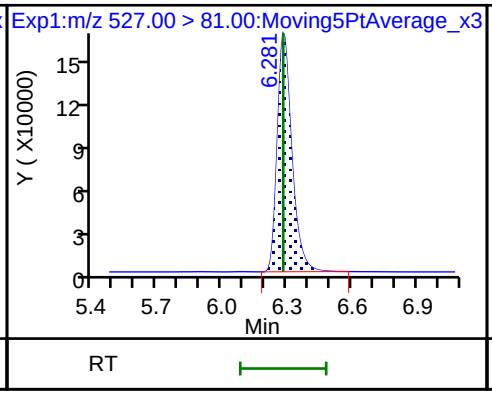
* 70 13C2 PFDA



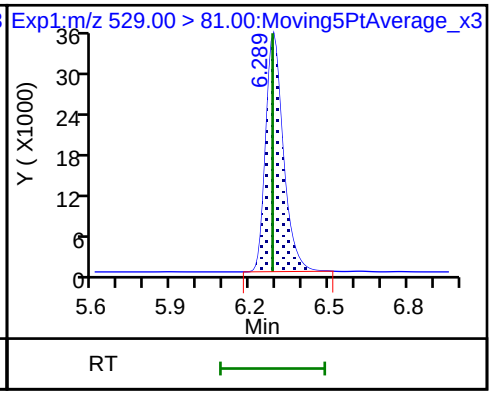
72 8:2 FTS



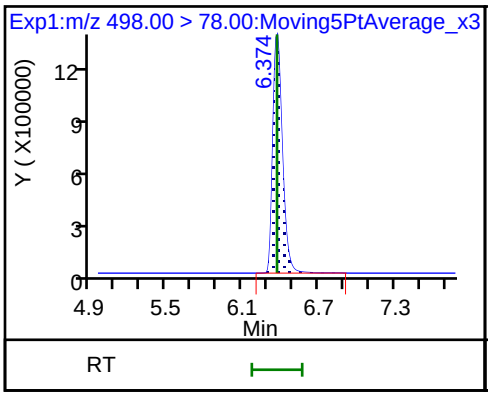
72 8:2 FTS



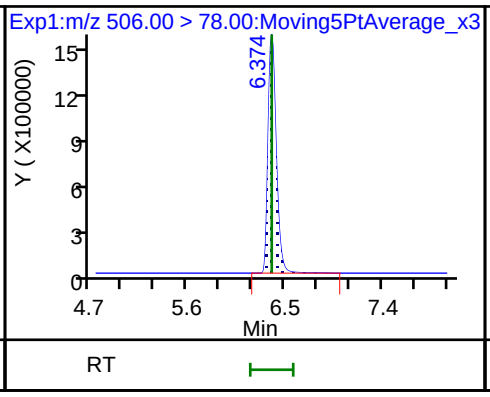
D 73 M2-8:2 FTS



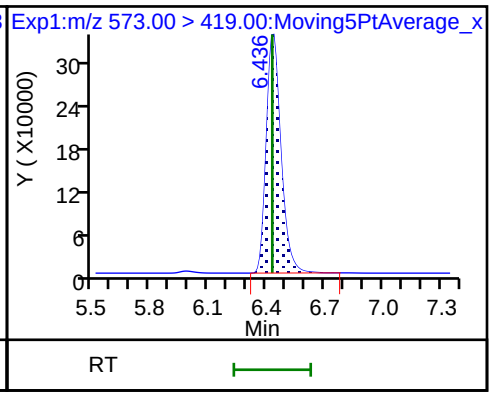
75 Perfluorooctanesulfonamide



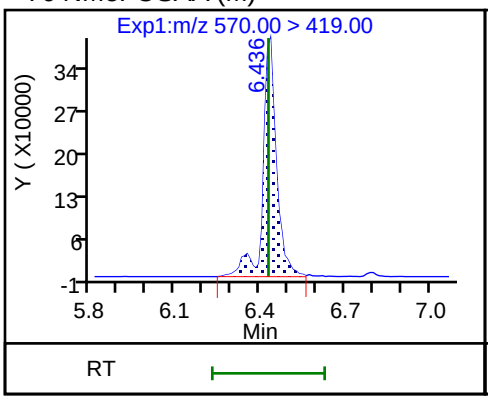
D 74 13C8 FOSA



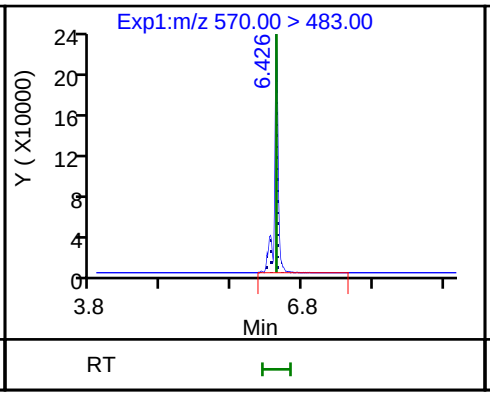
D 77 d3-NMeFOSAA



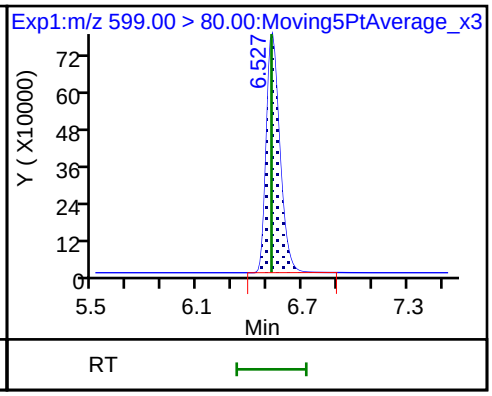
76 NMeFOSAA (M)



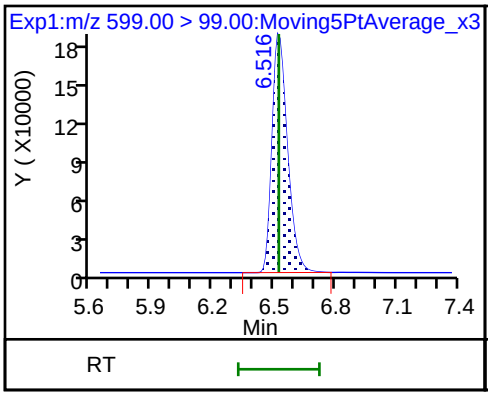
76 NMeFOSAA



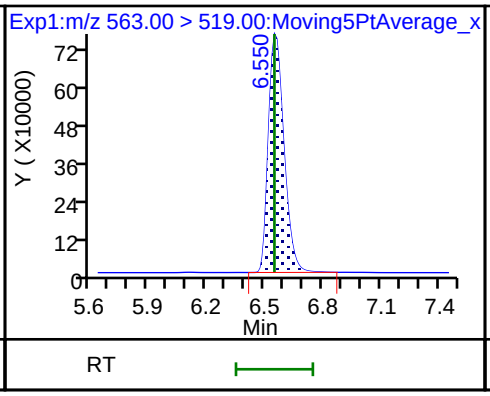
78 Perfluorodecanesulfonic acid



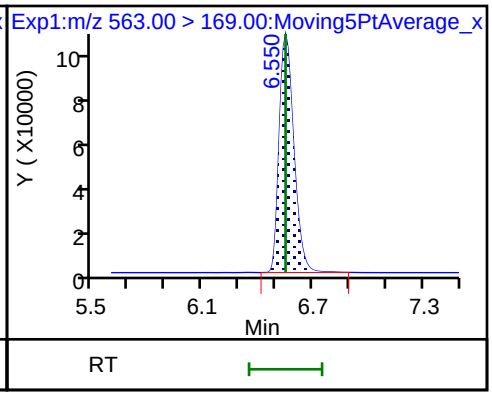
78 Perfluorodecanesulfonic acid



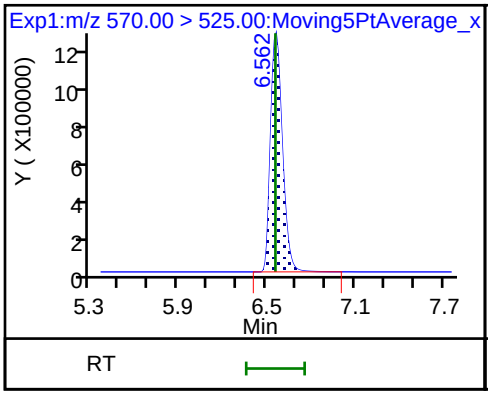
79 Perfluoroundecanoic acid



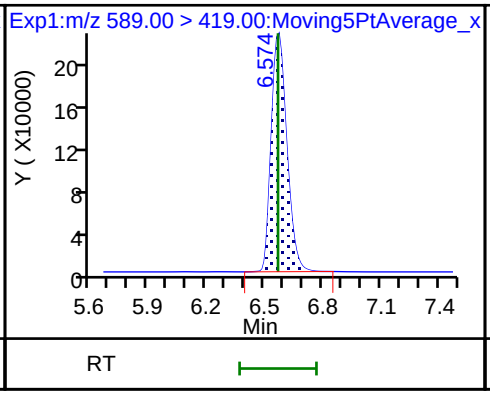
79 Perfluoroundecanoic acid



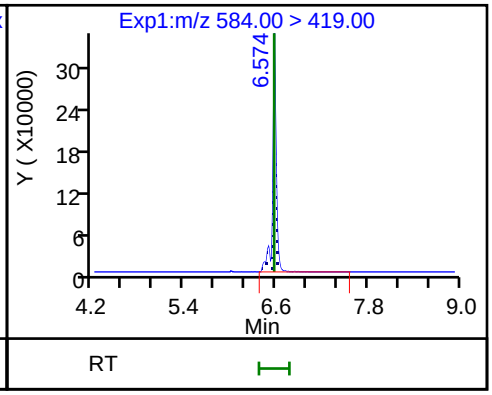
D 80 13C7 PFUnA



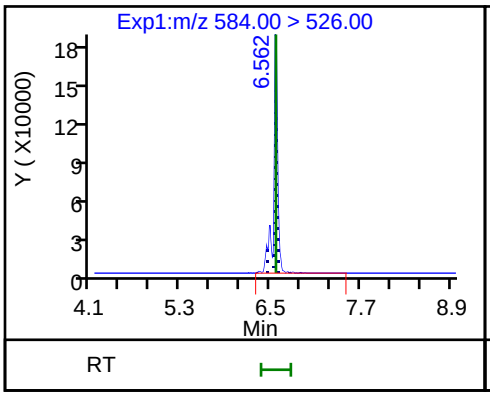
D 81 d5-NEtFOSAA



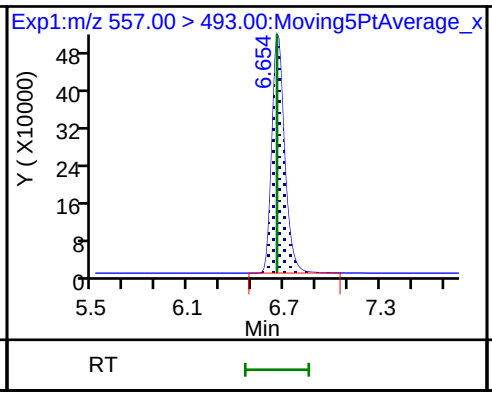
82 NEtFOSAA



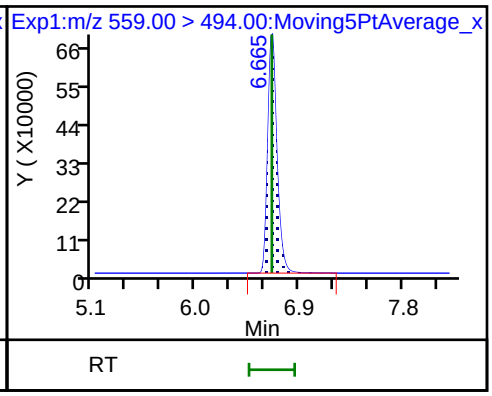
82 NEtFOSAA



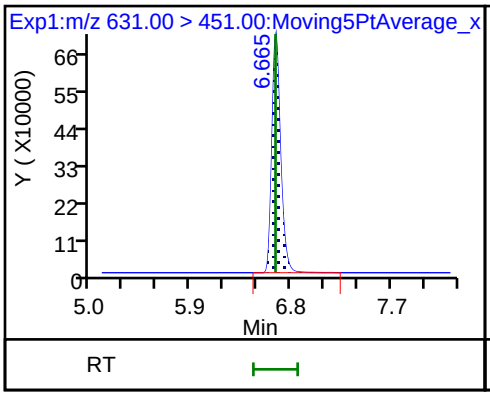
83 10:2 FTUCA



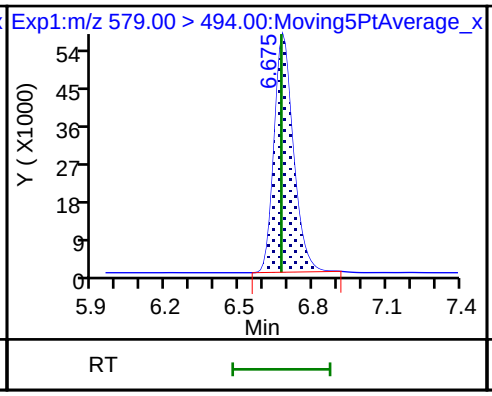
D 85 13C-10:2 FTUCA



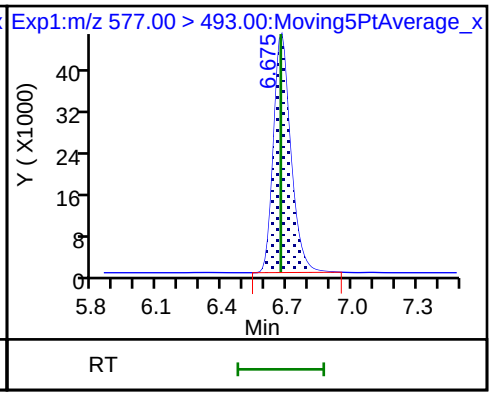
84 11ClFOS



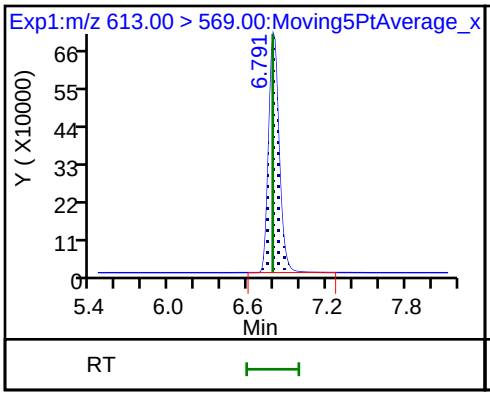
D 87 13C-10:2 FTCA



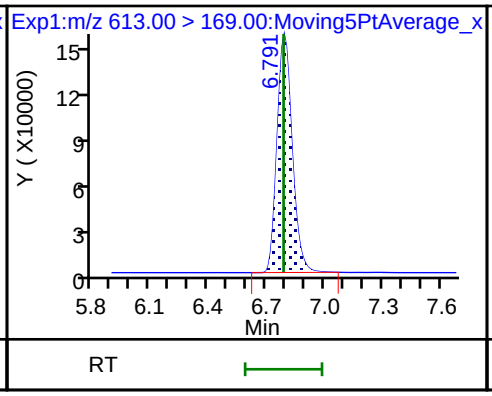
86 10:2 FTCA



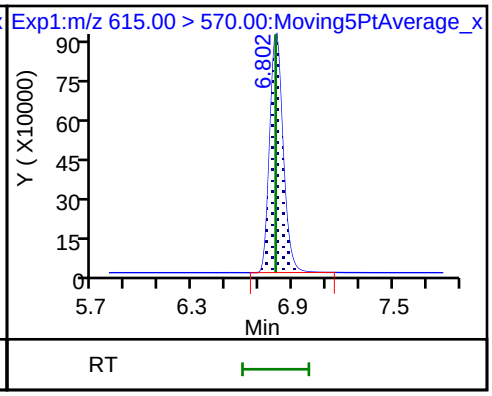
88 Perfluorododecanoic acid



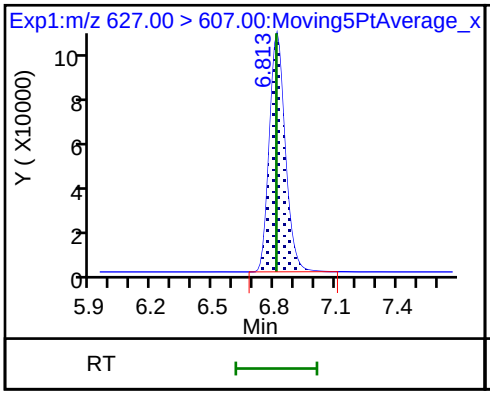
88 Perfluorododecanoic acid



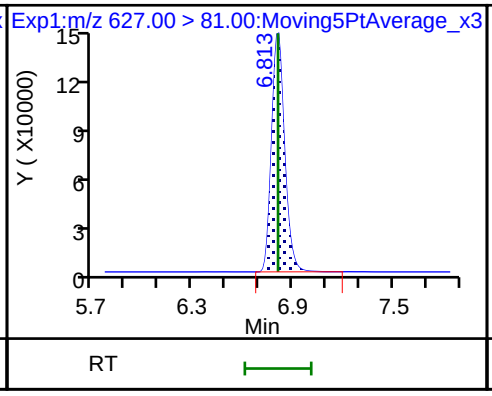
D 89 13C2-PFDoDA



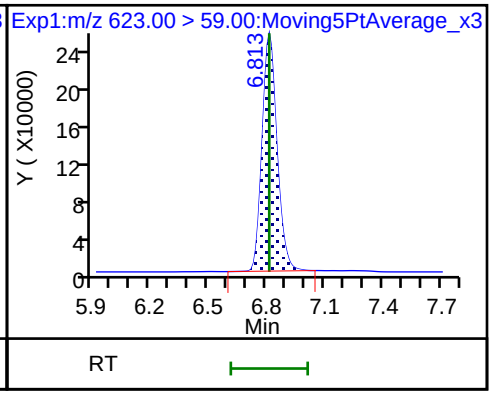
90 10:2 FTS



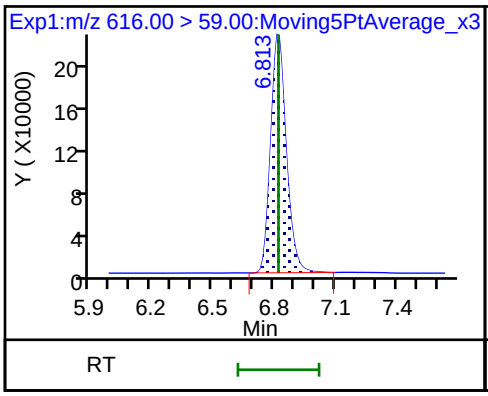
90 10:2 FTS



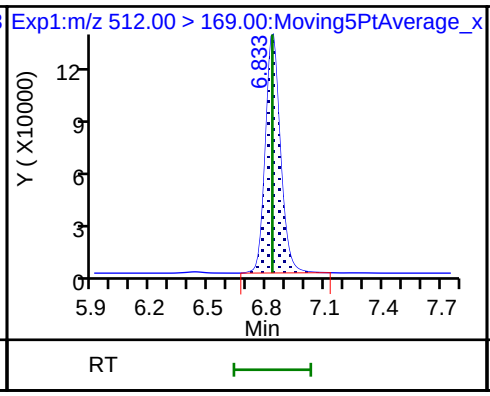
D 91 d7-N-MeFOSE-M



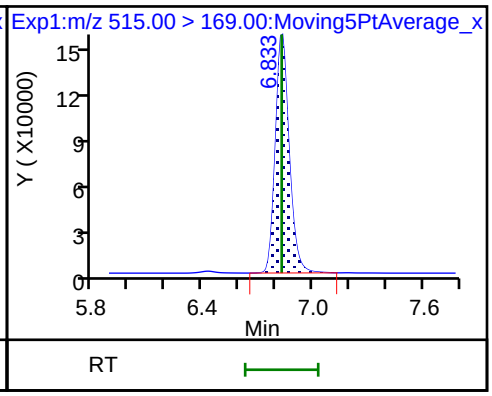
92 N-MeFOSE-M



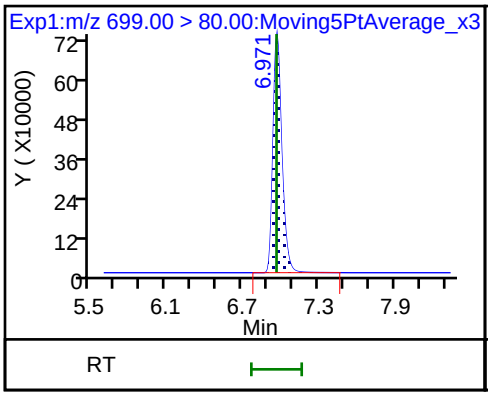
94 NMeFOSA



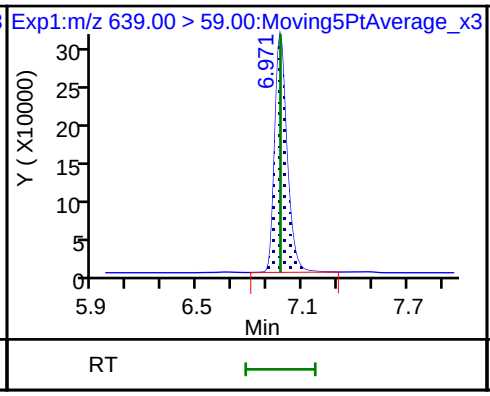
D 93 d3-NMePFOSA



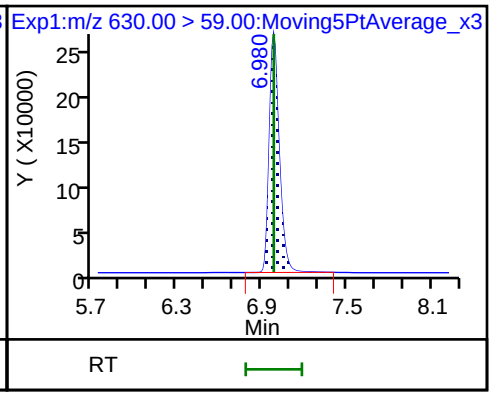
95 PFDoS



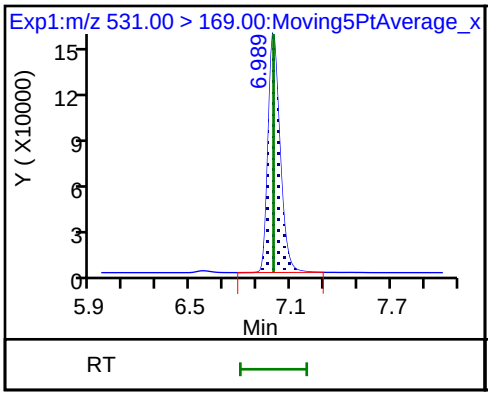
D 96 d9-N-EtFOSE-M



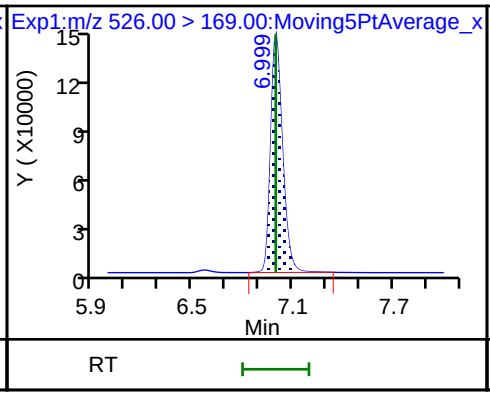
97 N-EtFOSE-M



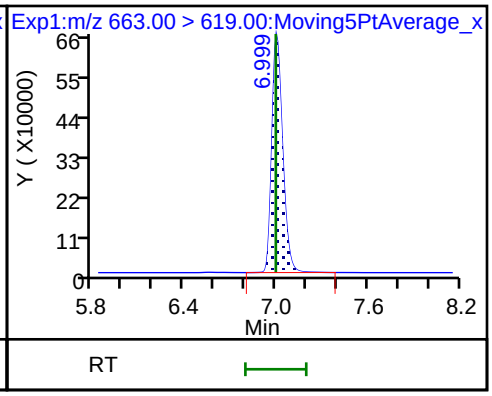
D 98 d5-NEtPFOSA



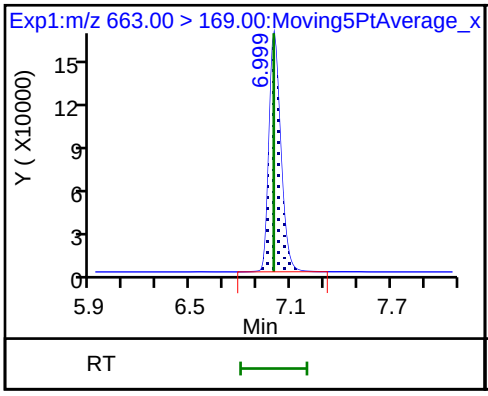
100 N-EtFOSA-M



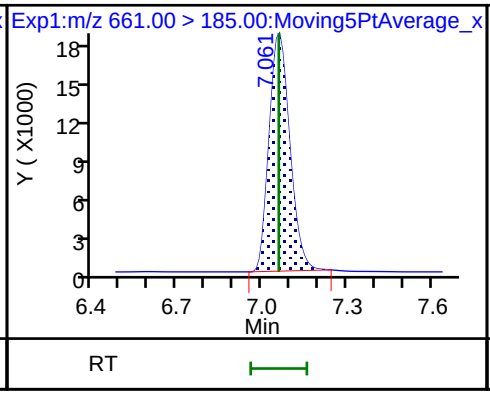
99 Perfluorotridecanoic acid



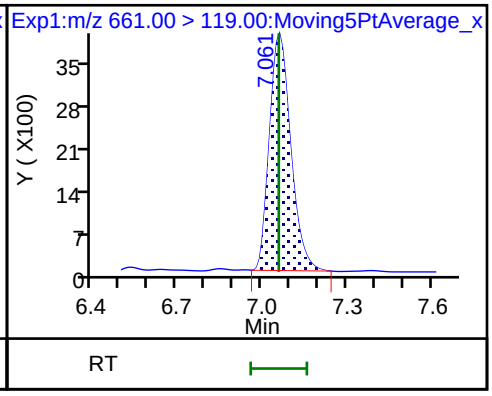
99 Perfluorotridecanoic acid



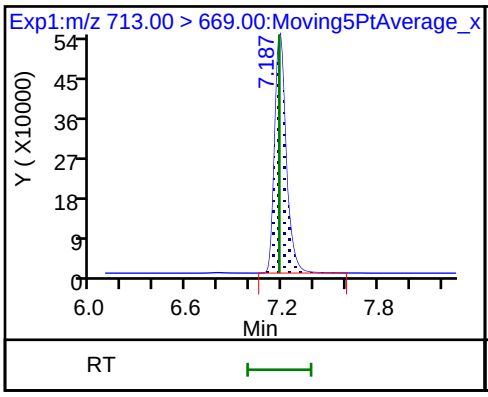
105 HFPOTeA



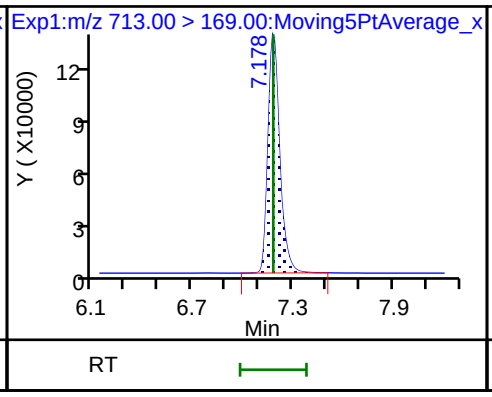
105 HFPOTeA



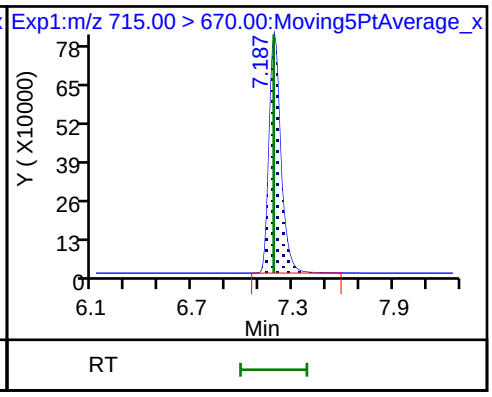
101 Perfluorotetradecanoic acid



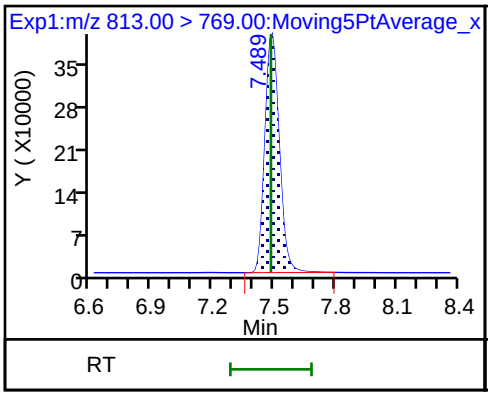
101 Perfluorotetradecanoic acid



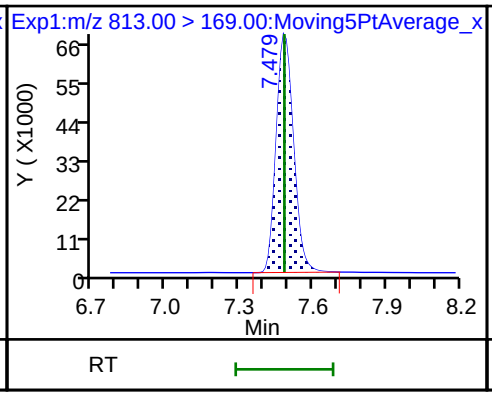
D 102 13C2 PFTeDA



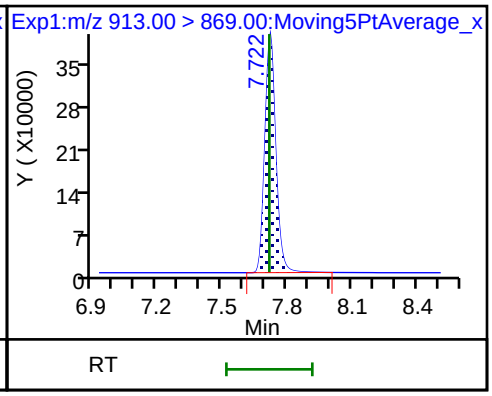
103 Perfluorohexadecanoic acid



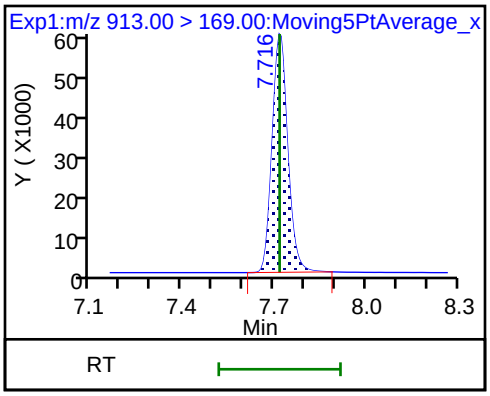
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

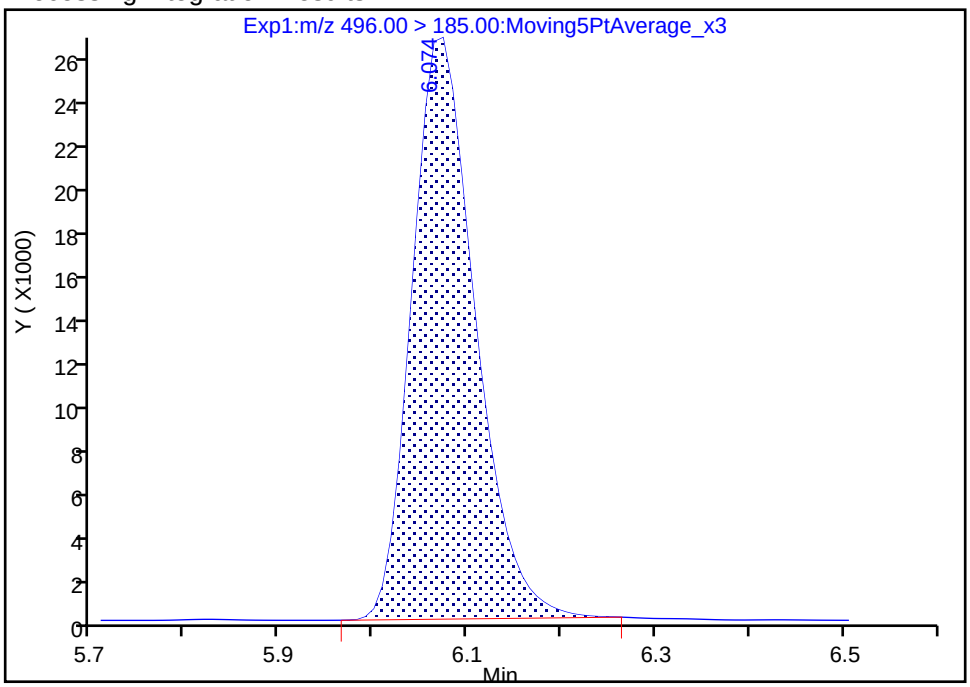
Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-20.d				
Injection Date:	02-Mar-2022 11:55:39	Instrument ID:	30728		
Lims ID:	CCV 3_CAL4				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20005	Worklist Smp#:	12
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

109 HFPO-TrA, CAS: 13252-14-7

Signal: 1

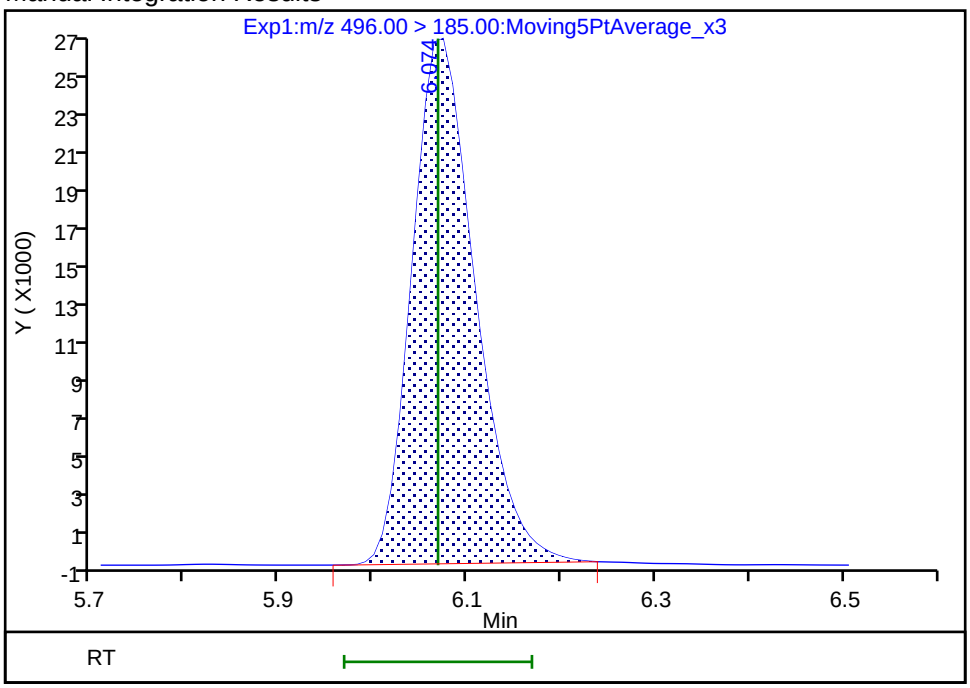
Processing Integration Results

RT: 6.07
Area: 122381
Amount: 53.499408
Amount Units: ng/ml



Manual Integration Results

RT: 6.07
Area: 122056
Amount: 53.357333
Amount Units: ng/ml



Reviewer: glicka, 02-Mar-2022 12:19:49
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

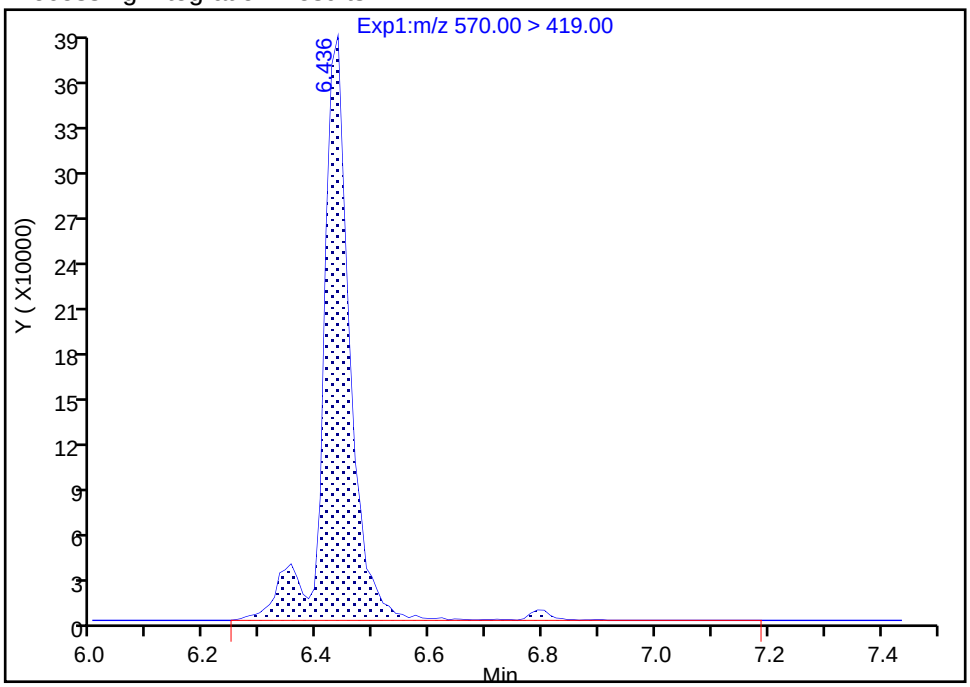
Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-20.d				
Injection Date:	02-Mar-2022 11:55:39	Instrument ID:	30728		
Lims ID:	CCV 3_CAL4				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20005	Worklist Smp#:	12
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

76 NMeFOSAA, CAS: 2355-31-9

Signal: 1

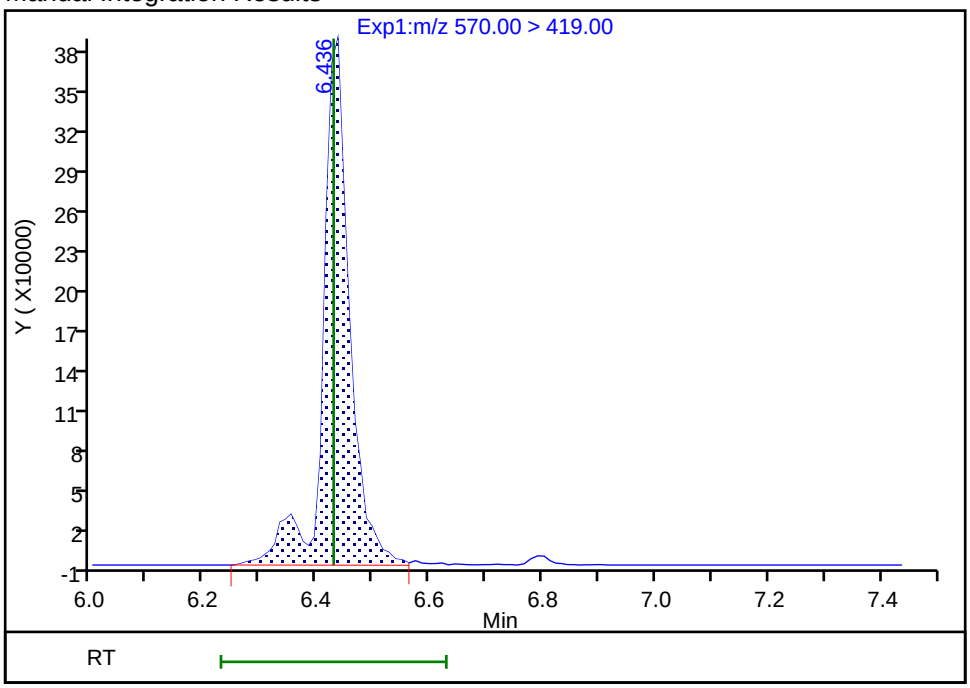
Processing Integration Results

RT: 6.44
Area: 1286524
Amount: 8.441582
Amount Units: ng/ml



Manual Integration Results

RT: 6.44
Area: 1261589
Amount: 8.277970
Amount Units: ng/ml



Reviewer: glicka, 02-Mar-2022 12:17:19

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: ICV 410-226473/9 Calibration Date: 02/22/2022 16:40

Instrument ID: 30733 Calib Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 02/22/2022 16:18

Lab File ID: 22FEB22MCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
MTP	AveID	0.0614	0.0641		2.09	2.00	4.5	30.0
PPF Acid	AveID	0.4927	0.5039		2.05	2.00	2.3	30.0
PFMOAA	AveID	0.3009	0.2984		1.98	2.00	-0.8	30.0
R-EVE	AveID	0.0771	0.0753		1.95	2.00	-2.4	30.0
R-PSDA	AveID	0.0312	0.0343		2.20	2.00	9.9	30.0
Hydrolyzed PSDA	AveID	0.1569	0.1583		2.02	2.00	0.9	30.0
Perfluorobutanoic acid	AveID	0.9428	0.9140		1.94	2.00	-3.1	30.0
PMPA	AveID	0.4361	0.4558		2.09	2.00	4.5	30.0
Perfluoropropanesulfonic acid	AveID	0.2294	0.2226		1.78	1.83	-3.0	30.0
NVHOS	AveID	0.2865	0.3146		2.20	2.00	9.8	30.0
PFECA F	AveID	0.8975	0.8975		2.00	2.00	-0.0	30.0
PFO2HxA	AveID	0.3028	0.3085		2.04	2.00	1.9	30.0
3:3 FTCA	AveID	0.0670	0.0752		2.24	2.00	12.2	30.0
Perfluoropentanoic acid	AveID	1.038	1.068		2.06	2.00	2.9	30.0
Perfluorobutanesulfonic acid	AveID	1.076	1.100		1.81	1.77	2.2	30.0
PEPA	AveID	0.1836	0.1858		2.02	2.00	1.2	30.0
PFECA A	AveID	0.9558	0.9854		2.06	2.00	3.1	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	3.328	3.364		1.80	1.78	1.1	30.0
PFECA B	AveID	1.174	1.232		2.10	2.00	5.0	30.0
4:2 Fluorotelomer sulfonic acid	AveID	3.114	3.801		2.28	1.87	22.1	30.0
Perfluorohexanoic acid	AveID	0.8387	0.7840		1.87	2.00	-6.5	30.0
Perfluoropentanesulfonic acid	AveID	0.9445	0.9854		1.96	1.88	4.3	30.0
PFO3OA	AveID	0.2857	0.2906		2.03	2.00	1.7	30.0
HFPODA	AveID	1.913	1.693		1.77	2.00	-11.5	30.0
Hydro-PS Acid	AveID	1.882	2.023		2.15	2.00	7.5	30.0
Hydro-EVE Acid	AveID	1.264	1.310		2.07	2.00	3.6	30.0
R-PSDCA	AveID	2.381	2.560		2.15	2.00	7.5	30.0
Perfluorohexanesulfonic acid	AveID	1.087	1.045		1.75	1.82	-3.8	30.0
Perfluoroheptanoic acid	AveID	1.010	0.9180		1.82	2.00	-9.1	30.0
DONA	AveID	1.274	1.181		1.75	1.89	-7.3	30.0
PFECA G	AveID	1.449	1.546		2.13	2.00	6.7	30.0
5:3 FTCA	AveID	0.2016	0.1967		1.95	2.00	-2.4	30.0
6:2 FTUCA	AveID	1.359	1.452		2.14	2.00	6.9	30.0
6:2 FTCA	AveID	1.055	1.224		2.32	2.00	16.1	30.0
PFO4DA	AveID	0.3310	0.3654		2.21	2.00	10.4	30.0
PS Acid	AveID	0.5979	0.6698		2.24	2.00	12.0	30.0
EVE Acid	AveID	0.9669	1.081		2.24	2.00	11.8	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.777	1.661		1.73	1.85	-6.5	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: ICV 410-226473/9 Calibration Date: 02/22/2022 16:40

Instrument ID: 30733 Calib Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 02/22/2022 16:18

Lab File ID: 22FEB22MCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
6:2 Fluorotelomer sulfonic acid	AveID	4.509	4.698		1.98	1.90	4.2	30.0
Perfluoroheptanesulfonic acid	AveID	1.015	1.062		1.99	1.90	4.6	30.0
Perfluorooctanoic acid	AveID	0.7647	0.8738		2.29	2.00	14.3	30.0
TAF	AveID	0.2952	0.3151		2.13	2.00	6.7	30.0
Perfluorooctanesulfonic acid	AveID	1.066	1.091		1.89	1.85	2.4	30.0
Perfluorononanoic acid	AveID	0.9259	1.024		2.21	2.00	10.6	30.0
7:3 FTCA	AveID	3.296	3.782		2.29	2.00	14.7	30.0
8:2 FTUCA	AveID	1.066	1.137		2.13	2.00	6.7	30.0
8:2 FTCA	AveID	0.9382	0.9779		2.08	2.00	4.2	30.0
9Cl-PF3ONS	AveID	1.819	1.747		1.79	1.86	-4.0	30.0
Perfluorononanesulfonic acid	AveID	0.999	1.032		1.98	1.92	3.3	30.0
8:2 Fluorotelomer sulfonic acid	AveID	7.728	7.804		1.93	1.92	1.0	30.0
Perfluorodecanoic acid	AveID	0.9790	1.015		2.07	2.00	3.7	30.0
Perfluorooctanesulfonamide	AveID	1.005	1.121		2.23	2.00	11.6	30.0
NMeFOSAA	AveID	0.8244	0.9615		2.33	2.00	16.6	30.0
Perfluorodecanesulfonic acid	AveID	1.038	1.014		1.88	1.93	-2.3	30.0
Perfluoroundecanoic acid	AveID	0.8828	0.8495		1.92	2.00	-3.8	30.0
NEtFOSAA	AveID	0.8916	0.8312		1.86	2.00	-6.8	30.0
10:2 FTUCA	AveID	1.022	1.106		2.16	2.00	8.2	30.0
11Cl-PF3OUdS	AveID	1.333	1.459		2.04	1.86	9.5	30.0
10:2 FTCA	L1ID		0.9029		1.86	2.00	-6.8	30.0
Perfluorododecanoic acid	AveID	1.018	1.023		2.01	2.00	0.5	30.0
10:2 FTS	AveID	5.124	5.232		1.97	1.93	2.1	30.0
NMeFOSE	AveID	1.069	1.185		2.22	2.00	10.9	30.0
NMeFOSA	AveID	1.122	1.091		1.94	2.00	-2.8	30.0
Perfluorododecanesulfonic acid	AveID	0.9567	0.9667		1.96	1.94	1.0	30.0
NEtFOSE	AveID	1.041	1.180		2.27	2.00	13.4	30.0
NEtFOSA	AveID	1.059	1.070		2.02	2.00	1.1	30.0
Perfluorotridecanoic acid	AveID	0.7467	0.7830		2.10	2.00	4.9	30.0
Perfluorotetradecanoic acid	AveID	0.9176	0.9882		2.15	2.00	7.7	30.0
Perfluorohexadecanoic acid	AveID	1.027	1.043		2.03	2.00	1.6	30.0
Perfluorooctadecanoic acid	AveID	0.4272	0.4497		2.11	2.00	5.3	30.0
13C4 PFBA	Ave	1.113	1.182		10.6	10.0	6.2	30.0
13C5 PFPeA	Ave	0.9609	0.9693		10.1	10.0	0.9	30.0
13C3 PFBS	Ave	0.7607	0.7864		9.68	9.36	3.4	30.0
M2-4:2 FTS	Ave	0.1389	0.1446		9.73	9.34	4.1	30.0
13C5 PFHxA	Ave	1.080	1.158		10.7	10.0	7.2	30.0
13C3 HFPO-DA	Ave	0.1589	0.1797		11.3	10.0	13.1	30.0
13C3 PFHxS	Ave	0.6680	0.7521		10.7	9.46	12.6	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: ICV 410-226473/9 Calibration Date: 02/22/2022 16:40

Instrument ID: 30733 Calib Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 02/22/2022 16:18

Lab File ID: 22FEB22MCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFHpA	Ave	1.203	1.411		11.7	10.0	17.3	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	1.039	1.122		10.8	10.0	8.0	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.0954	0.0992		10.4	10.0	3.9	30.0
M2-6:2 FTS	Ave	0.0574	0.0613		10.2	9.50	6.8	30.0
13C8 PFOA	Ave	1.325	1.329		10.0	10.0	0.3	30.0
13C8 PFOS	Ave	1.009	1.059		10.0	9.57	5.0	30.0
13C9 PFNA	Ave	1.679	1.629		9.70	10.0	-3.0	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	1.103	1.054		9.56	10.0	-4.4	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.0739	0.0818		11.1	10.0	10.7	30.0
13C6 PFDA	Ave	0.996	1.015		10.2	10.0	2.0	30.0
M2-8:2 FTS	Ave	0.0271	0.0284		10.0	9.58	4.7	30.0
13C8 FOSA	Ave	0.9410	0.9497		10.1	10.0	0.9	30.0
d3-NMeFOSAA	Ave	0.3357	0.3315		9.87	10.0	-1.3	30.0
13C7 PFUnA	Ave	0.9671	1.068		11.0	10.0	10.4	30.0
d5-NEtFOSAA	Ave	0.2349	0.2633		11.2	10.0	12.1	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.8336	0.9095		10.9	10.0	9.1	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0412	0.0425		10.3	10.0	3.0	30.0
13C2-PFDoDA	Ave	0.7173	0.7305		10.2	10.0	1.8	30.0
d7-N-MeFOSE-M	Ave	0.1491	0.1481		9.93	10.0	-0.7	30.0
d3-NMePFOSA	Ave	0.0959	0.1005		10.5	10.0	4.8	30.0
d9-N-EtFOSE-M	Ave	0.1704	0.1612		9.46	10.0	-5.4	30.0
d5-NEtPFOSA	Ave	0.0915	0.0943		10.3	10.0	3.0	30.0
13C2 PFTeDA	Ave	0.6058	0.5990		9.89	10.0	-1.1	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-09.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 22-Feb-2022 16:40:49 ALS Bottle#: 20009 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: Plate: 1 Rack: 1 410-0050930-009
Operator ID: US19_USR_INS20260 Instrument ID: 30733
Sublist:

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 10:07:28 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1604

First Level Reviewer: fellenbauma Date: 22-Feb-2022 21:15:03
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										M
175.00 > 97.00	1.477	1.469	0.008	0.372	20930	2.09			218	M
1 PPF Acid										
163.00 > 119.00	1.828	1.837	-0.009	0.460	164442	2.05			1551	
96 PFMOAA										
179.00 > 85.00	2.941	2.942	-0.001	0.740	97383	1.98			943	
100 R-PSDA										
441.00 > 241.00	3.957	3.947	0.010	0.865	7442	2.20			526	
99 R-EVE										
405.00 > 217.00	3.957	3.947	0.010	0.996	24574	1.95			1348	
105 Hydrolyzed PSDA										
439.00 > 343.00	3.974	3.963	0.011	0.869	34379	2.02			2186	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.974	3.972	0.002	1.000	298269	1.94			5240	
* 4 13C3-PFBA										
216.00 > 172.00	3.974	3.980	-0.006		690361	5.00			1632	
D 3 13C4 PFBA										
217.00 > 172.00	3.974	3.980	-0.006	1.000	1631692	10.6		106	93296	
102 PMPA										
229.00 > 185.00	4.100	4.098	0.002	1.032	148742	2.09			3507	
5 PFPrS										
249.00 > 99.00	4.161	4.159	0.002	1.047	66548	1.78			4665	
103 NVHOS										
297.00 > 135.00	4.203	4.191	0.012	0.919	68320	2.20			4736	
6 PFECA F										
229.00 > 85.00	4.224	4.223	0.001	1.063	292882	2.00			18098	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 PFO2HxA										
245.00 > 85.00	4.415	4.402	0.013	1.111	100676	2.04			6901	
7 Perfluoropentanoic acid										
263.00 > 219.00	4.526	4.514	0.012	1.000	285920	2.06			8002	
D 8 13C5 PFPeA										
268.00 > 223.00	4.526	4.523	0.003	1.139	1338381	10.1		101	74766	
9 3:3 FTCA										
241.00 > 177.00	4.526	4.524	0.002	1.000	20128	2.24			1478	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.574	4.572	0.002	1.000	211389	1.81	Target=3.22		16171	
299.00 > 99.00	4.574	4.572	0.002	1.000	68782		3.07(1.61-4.83)		5279	
D 11 13C3 PFBS										
302.00 > 80.00	4.574	4.581	-0.007	1.151	1016355	9.68		103	77956	
91 PEPA										
279.00 > 235.00	4.629	4.628	0.001	1.165	60626	2.02			2413	
12 PFECA A										
279.00 > 85.00	4.655	4.653	0.002	1.018	213992	2.06			17632	
13 PES										
315.00 > 135.00	4.749	4.740	0.009	1.038	650197	1.80			53471	
14 PFECA B										
201.00 > 85.00	4.871	4.870	0.001	1.065	267571	2.10	Target=1.44		3345	
295.00 > 201.00	4.871	4.870	0.001	1.065	173946		1.54(0.72-2.15)		12692	
15 4:2 FTS										
327.00 > 307.00	4.900	4.899	0.001	0.998	145510	2.28	Target=1.53		10587	
327.00 > 81.00	4.900	4.899	0.001	0.998	76711		1.90(0.77-2.30)		5498	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.910	4.908	0.002	0.862	191390	9.73		104	13754	
17 Perfluorohexanoic acid										
313.00 > 269.00	4.942	4.940	0.002	1.000	257374	1.87	Target=16.07		7900	
313.00 > 119.00	4.942	4.940	0.002	1.000	17931		14.35(8.04-24.11)		1260	
$ 18 13C2 PFHxA										
315.00 > 270.00	4.942	4.950	-0.008	0.868	1337475	NC			72645	
D 19 13C5 PFHxA										
318.00 > 273.00	4.942	4.950	-0.008	0.868	1641444	10.7		107	88908	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.962	4.960	0.002	1.085	200728	1.96	Target=3.46		14652	
349.00 > 99.00	4.962	4.960	0.002	1.085	57299		3.50(1.73-5.19)		4107	
93 PFO3OA										
311.00 > 85.00	5.001	4.999	0.002	1.258	94836	2.03			7271	
21 HFPO-DA										
329.00 > 285.00	5.072	5.070	0.002	1.000	86225	1.77			4993	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.072	5.071	0.001	0.890	254671	11.3		113	19769	
106 Hydro-PS Acid										M
463.00 > 263.00	5.274	5.273	0.001	1.153	439242	2.15			48017	M
97 Hydro-EVE Acid										
427.00 > 283.00	5.285	5.284	0.001	1.330	427605	2.07			116426	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
94 R-PSDCA										
397.00 > 217.00	5.285	5.284	0.001	1.155	556030	2.15			39109	
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.338	5.326	0.012	1.000	367015	1.82	Target=3.65		11141	
363.00 > 169.00	5.327	5.326	0.001	0.998	102174		3.59(1.82-5.47)		7332	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.327	5.326	0.001	0.998	203183	1.75	Target=3.59		403	
399.00 > 99.00	5.327	5.326	0.001	0.998	57195		3.55(1.79-5.38)		191	
D 25 13C3 PFHxS										
402.00 > 80.00	5.338	5.337	0.001	0.937	1008062	10.7		113	72698	
D 24 13C4 PFHpA										
367.00 > 322.00	5.338	5.337	0.001	0.937	1998898	11.7		117	87086	
27 DONA										
377.00 > 251.00	5.384	5.374	0.010	1.009	446278	1.75			26271	
98 PFECA G										
379.00 > 185.00	5.400	5.391	0.009	1.359	504601	2.13			30146	
28 5:3 FTCA										
341.00 > 237.00	5.417	5.407	0.010	1.015	78649	1.95	Target=50.84		6212	
339.00 > 295.00	5.442	5.407	0.035	1.019	1097		71.69(25.42-76.26)		31.8	
29 6:2 FTUCA										
357.00 > 293.00	5.433	5.432	0.001	1.000	461916	2.14			27606	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.433	5.441	-0.008	0.954	1590109	10.8		108	75462	
32 6:2 FTCA										
377.00 > 293.00	5.450	5.449	0.001	0.998	34401	2.32			2051	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.459	5.458	0.001	0.958	140523	10.4		104	11088	
95 PFO4DA										
377.00 > 85.00	5.503	5.502	0.001	1.385	119247	2.21			744	
104 PS Acid										
443.00 > 147.00	5.554	5.544	0.010	1.214	145465	2.24			11737	
90 EVE Acid										
407.00 > 263.00	5.570	5.569	0.001	1.402	352789	2.24			28025	
33 PFECHS										
461.00 > 381.00	5.640	5.629	0.011	1.057	327110	1.73	Target=1.94		24257	
461.00 > 99.00	5.640	5.629	0.011	1.057	182790		1.79(0.97-2.91)		13412	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.687	5.677	0.010	1.065	215518	1.99	Target=3.50		16047	
449.00 > 99.00	5.687	5.677	0.010	1.065	64520		3.34(1.75-5.24)		4683	
34 6:2 FTS										
427.00 > 407.00	5.678	5.677	0.001	0.998	77404	1.98	Target=1.31		5662	
427.00 > 81.00	5.678	5.677	0.001	0.998	65511		1.18(0.65-1.96)		4819	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.687	5.687	0.0	0.998	82546	10.2		107	6001	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.697	5.706	-0.009	1.000	328952	2.29	Target=2.48		24773	
413.00 > 169.00	5.687	5.706	-0.019	0.998	132886		2.48(1.24-3.72)		381	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 38 13C2 PFOA										
415.00 > 370.00	5.697	5.706	-0.009		708438	5.00			38696	
D 37 13C8 PFOA										
421.00 > 376.00	5.697	5.706	-0.009	1.000	1882329	10.0		100	83336	
$ 39 13C4 PFOA										
417.00 > 372.00	5.697	5.706	-0.009	1.000	1798176	NC			98631	
101 TAF										
443.00 > 85.00	5.945	5.945	0.0	1.496	102832	2.13			7971	
43 Perfluorooctanesulfonic acid										M
499.00 > 80.00	6.016	6.015	0.001	1.000	210430	1.89	Target=4.38		346	M
499.00 > 99.00	6.016	6.015	0.001	1.000	42851		4.91(2.19-6.57)		80.7	M
* 42 13C4 PFOS										
503.00 > 80.00	6.016	6.025	-0.009		470650	4.78			26876	
D 41 13C8 PFOS										
507.00 > 80.00	6.016	6.025	-0.009	1.000	996675	10.0		105	32336	
44 Perfluorononanoic acid										
463.00 > 419.00	6.034	6.033	0.001	1.000	328412	2.21	Target=4.84		10817	
463.00 > 169.00	6.034	6.033	0.001	1.000	58170		5.65(2.42-7.25)		4474	
D 45 13C9 PFNA										
472.00 > 427.00	6.034	6.043	-0.009	1.003	1602942	9.70		97.0	90647	
46 7:3 FTCA										
441.00 > 337.00	6.139	6.139	0.0	1.125	106295	2.29			8301	
47 8:2 FTUCA										
457.00 > 393.00	6.147	6.148	-0.001	0.999	444212	2.13			35270	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.156	6.156	0.0	0.970	1952835	9.56		95.6	116004	
49 8:2 FTCA										
477.00 > 393.00	6.163	6.164	-0.001	1.000	29642	2.08			2392	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.163	6.171	-0.008	0.972	151557	11.1		111	12438	
51 9ClFOS										
531.00 > 351.00	6.194	6.187	0.007	1.030	338510	1.79			20911	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.316	6.316	0.0	1.050	206495	1.98	Target=4.28		15375	
549.00 > 99.00	6.316	6.316	0.0	1.050	44605		4.63(2.14-6.42)		3364	
D 54 13C6 PFDA										
519.00 > 474.00	6.344	6.344	0.0	1.000	1881283	10.2		102	101627	
* 55 13C2 PFDA										
515.00 > 470.00	6.344	6.344	0.0		926367	5.00			66582	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.344	6.344	0.0	1.000	381989	2.07	Target=10.44		13888	
513.00 > 169.00	6.334	6.344	-0.010	0.998	36001		10.61(5.22-15.66)		2561	
56 8:2 FTS										
527.00 > 507.00	6.344	6.344	0.0	0.998	78693	1.93	Target=1.54		5623	
527.00 > 81.00	6.344	6.344	0.0	0.998	49606		1.59(0.77-2.31)		3601	
D 57 M2-8:2 FTS										
529.00 > 81.00	6.354	6.354	0.0	1.002	50416	10.0		105	3553	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.418	6.419	-0.001	0.998	394537	2.23			27196	
D 59 13C8 FOSA										
506.00 > 78.00	6.429	6.428	0.001	1.013	1759526	10.1		101	72925	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.490	6.490	0.0	1.023	614203	9.87		98.7	41895	
60 NMeFOSAA										M
570.00 > 419.00	6.490	6.491	-0.001	1.000	118110	2.33	Target=1.64		49395	M
570.00 > 483.00	6.490	6.491	-0.001	1.000	64893		1.82(0.82-2.46)		147	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.591	6.580	0.011	1.096	203781	1.88	Target=4.07		13106	
599.00 > 99.00	6.591	6.580	0.011	1.096	54239		3.76(2.03-6.10)		3503	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.614	6.615	-0.001	0.998	336069	1.92	Target=8.63		10960	
563.00 > 169.00	6.614	6.615	-0.001	0.998	43047		7.81(4.31-12.94)		2852	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.626	6.626	0.0	1.163	1656175	NC			108822	
D 65 13C7 PFUnA										
570.00 > 525.00	6.626	6.626	0.0	1.044	1977926	11.0		110	97170	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.637	6.637	0.0	1.046	487743	11.2		112	31943	
67 NEtFOSAA										
584.00 > 419.00	6.648	6.638	0.010	1.002	81086	1.86	Target=1.31		118	
584.00 > 526.00	6.637	6.638	-0.001	1.000	62015		1.31(0.66-1.97)		177	
68 10:2 FTUCA										
557.00 > 493.00	6.724	6.713	0.011	1.000	372701	2.16			18052	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.724	6.725	-0.001	1.060	1685058	10.9		109	81660	
69 11ClFOS										
631.00 > 451.00	6.724	6.725	-0.001	1.118	282840	2.04			18322	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.736	6.737	-0.001	1.062	78693	10.3		103	5026	
71 10:2 FTCA										
577.00 > 493.00	6.736	6.737	-0.001	1.000	14210	1.86			920	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.859	6.850	0.009	1.000	276944	2.01	Target=5.13		14765	
613.00 > 169.00	6.849	6.850	-0.001	0.999	54859		5.05(2.56-7.69)		3910	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.859	6.859	0.0	1.081	1353471	10.2		102	97333	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.869	6.870	-0.001	1.083	274349	9.93		99.3	7287	
75 10:2 FTS										
627.00 > 607.00	6.869	6.870	-0.001	1.081	53086	1.97	Target=0.83		3854	
627.00 > 81.00	6.869	6.870	-0.001	1.081	64954		0.82(0.42-1.25)		4735	
77 N-MeFOSE-M										
616.00 > 59.00	6.869	6.870	-0.001	1.000	65045	2.22			3518	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 79 d3-NMePFOSA										
515.00 > 169.00	6.880	6.880	0.0	1.084	186251	10.5		105	5120	
78 NMeFOSA										
512.00 > 169.00	6.880	6.880	0.0	1.000	40644	1.94			2961	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.024	7.023	0.001	1.107	298600	9.46		94.6	10709	
82 N-EtFOSE-M										
630.00 > 59.00	7.035	7.024	0.011	1.002	70465	2.27			3762	
80 PFDoS										
699.00 > 80.00	7.024	7.024	0.0	1.168	195012	1.96			10452	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.046	7.045	0.001	1.111	174621	10.3		103	9394	
84 N-EtFOSA-M										
526.00 > 169.00	7.046	7.045	0.001	1.000	37368	2.02			2644	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.056	7.056	0.0	1.029	211950	2.10	Target=4.34		9276	
663.00 > 169.00	7.056	7.056	0.0	1.029	45984		4.61(2.17-6.51)		3331	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.235	7.226	0.009	1.000	219338	2.15	Target=5.08		9302	
713.00 > 169.00	7.226	7.226	0.0	0.999	45192		4.85(2.54-7.61)		3193	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.235	7.234	0.001	1.140	1109748	9.89		98.9	58511	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.542	7.534	0.008	1.042	231453	2.03	Target=9.01		14753	
813.00 > 169.00	7.534	7.534	0.0	1.041	25229		9.17(4.50-13.51)		2134	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.771	7.770	0.001	1.074	99813	2.11	Target=7.79		11156	
913.00 > 169.00	7.771	7.770	0.001	1.074	12493		7.99(3.89-11.68)		1383	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

PFC_ICV_MOD_00039 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 10:07:43 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-09.d

Injection Date: 22-Feb-2022 16:40:49 Instrument ID: 30733

Lims ID: ICV

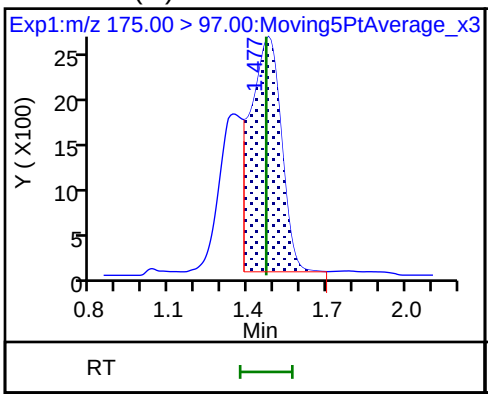
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20009 Worklist Smp#: 9

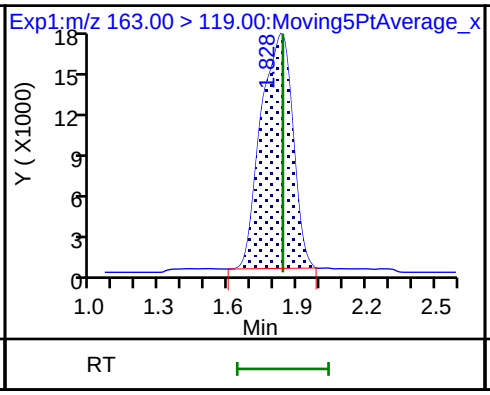
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

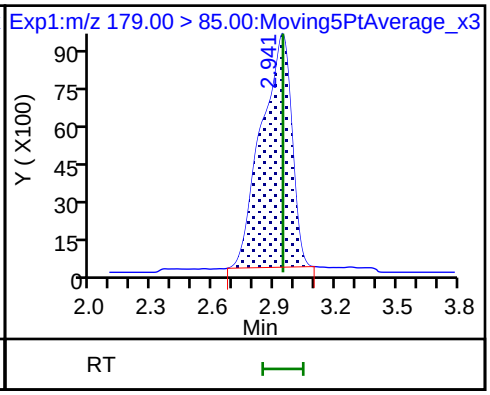
107 MTP (M)



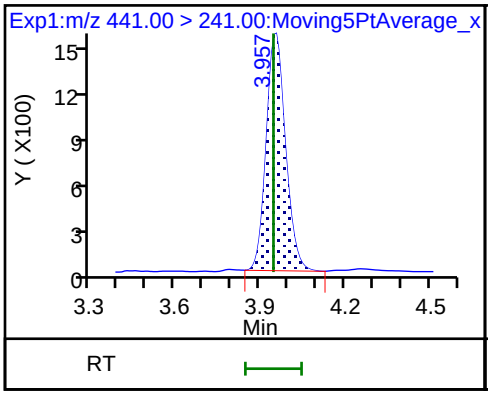
1 PPF Acid



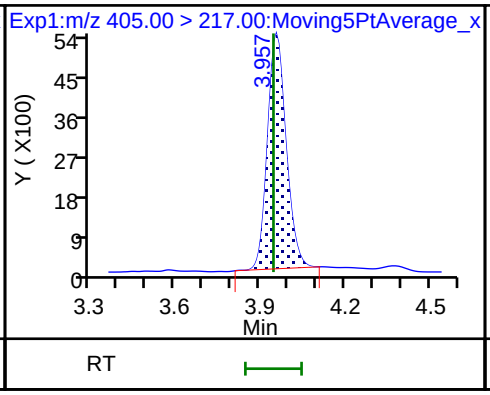
96 PFMOAA



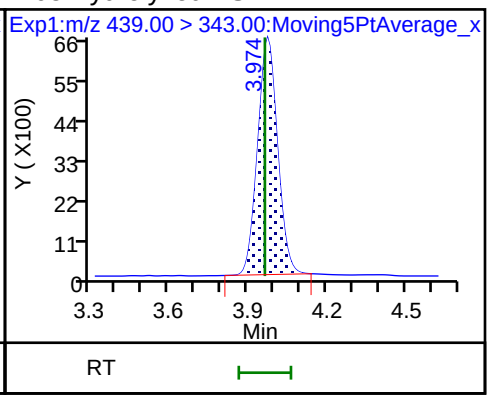
100 R-PSDA



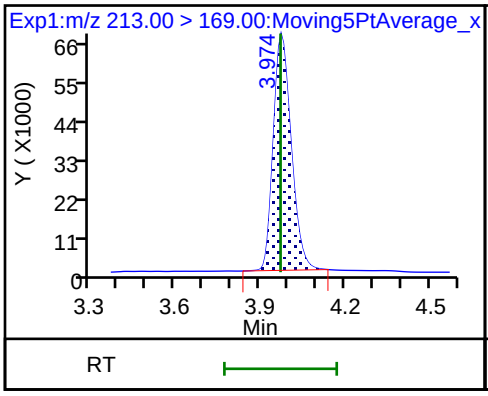
99 R-EVE



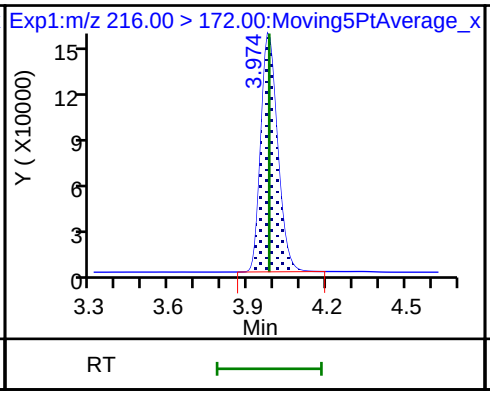
105 Hydrolyzed PSDA



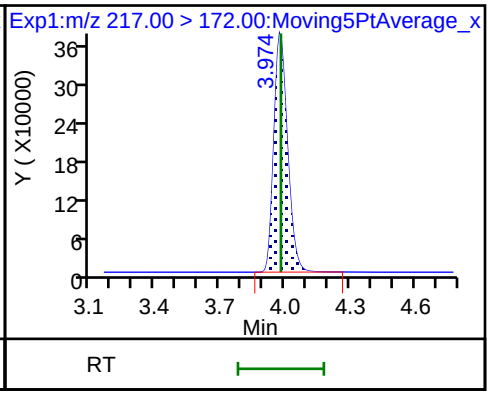
2 Perfluorobutanoic acid



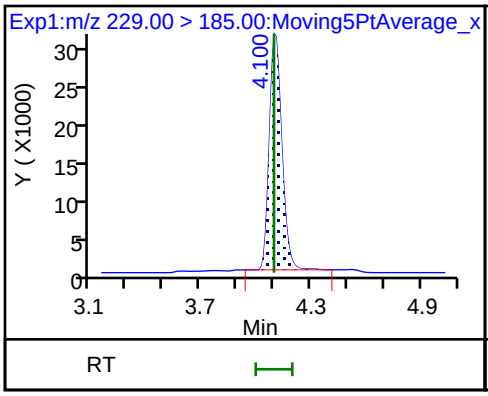
* 4 13C3-PFBA



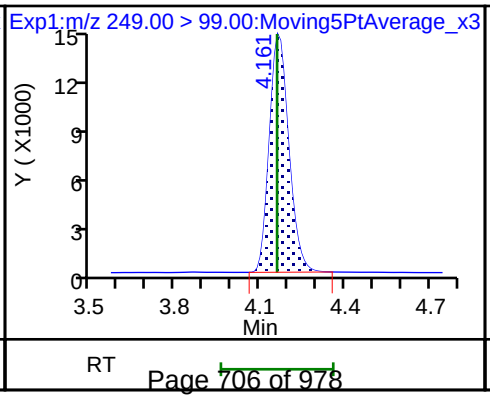
D 3 13C4 PFBA



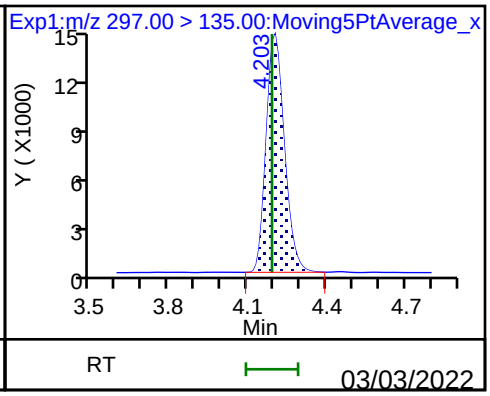
102 PMPA



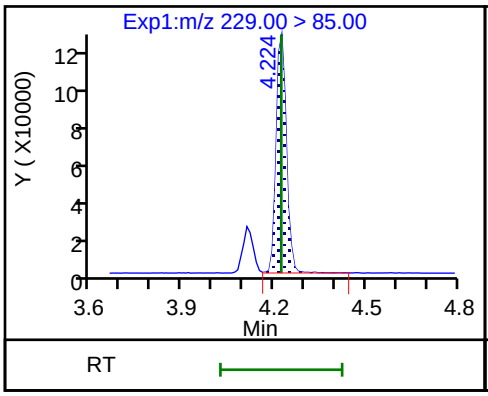
5 PFPrS



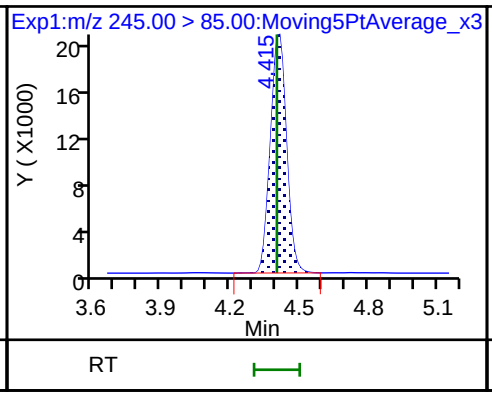
103 NVHOS



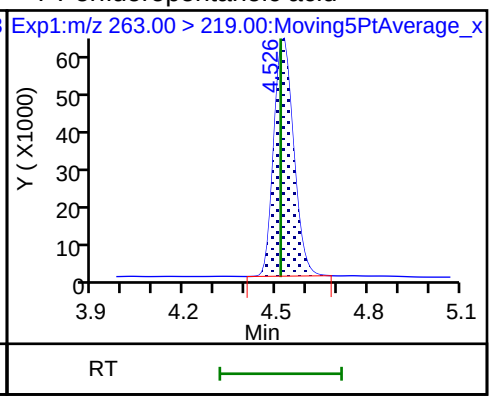
6 PFECA F



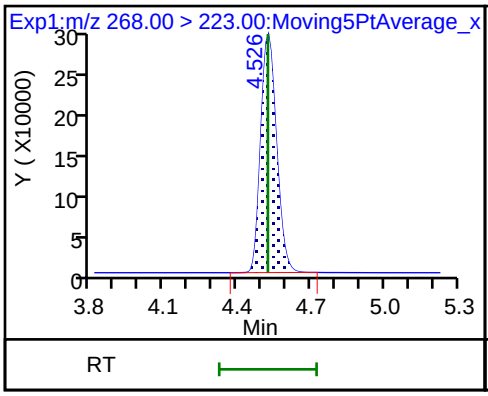
92 PFO2HxA



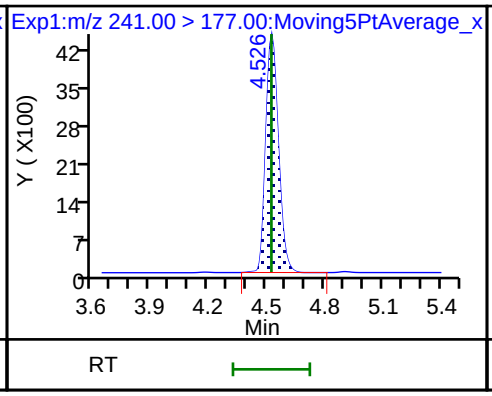
7 Perfluoropentanoic acid



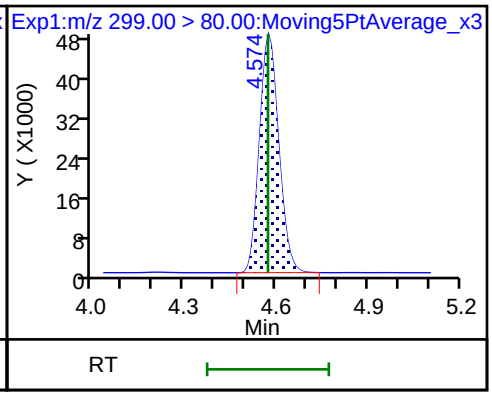
D 8 13C5 PFPeA



9 3:3 FTCA



10 Perfluorobutanesulfonic acid



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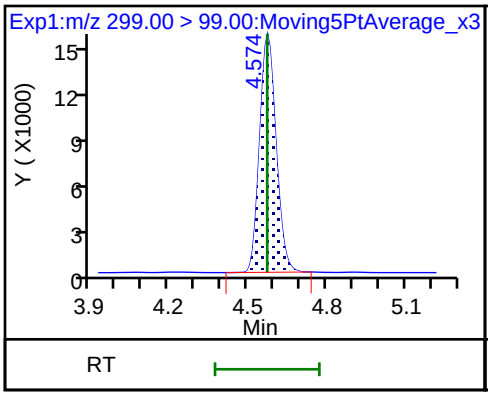
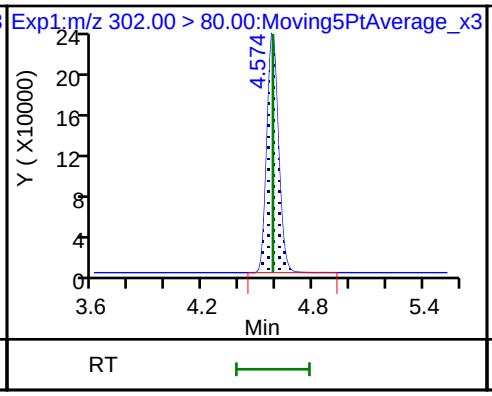
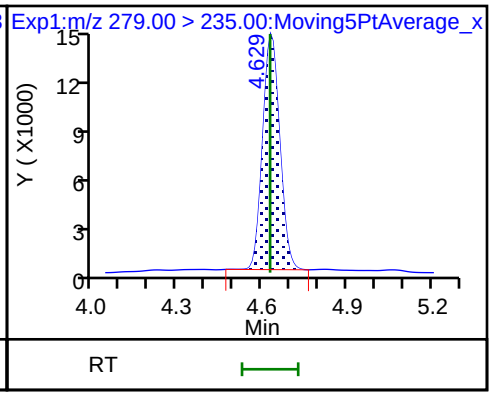


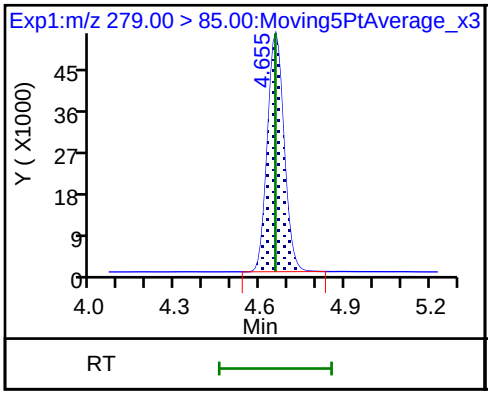
D 11 13C3 PFBS



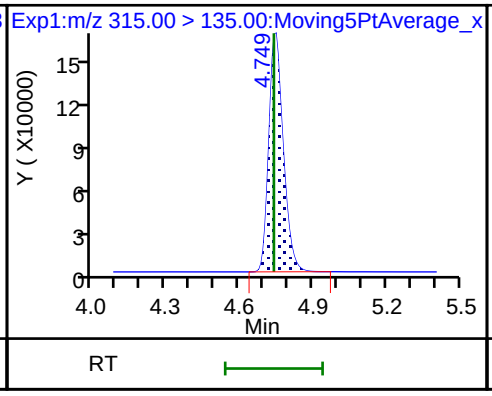
91 PEPA



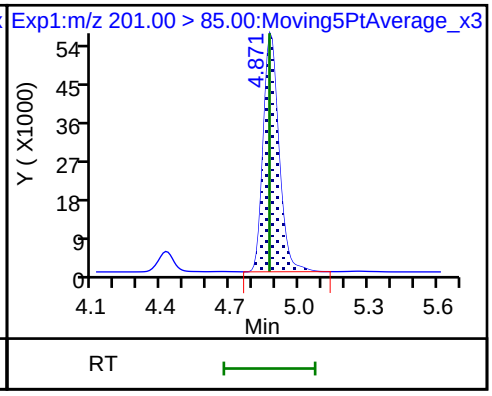
12 PFECA A



13 PES



14 PFECA B



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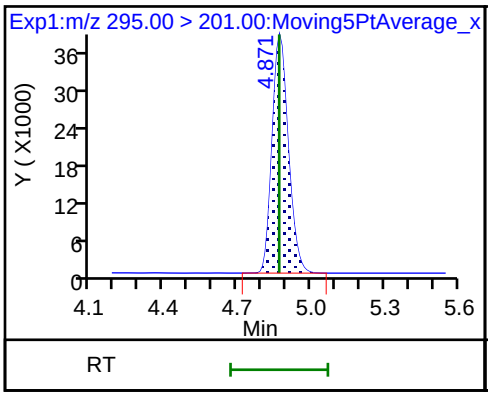
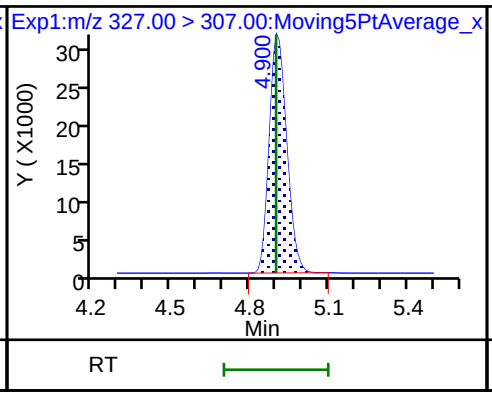


15 4:2 FTS



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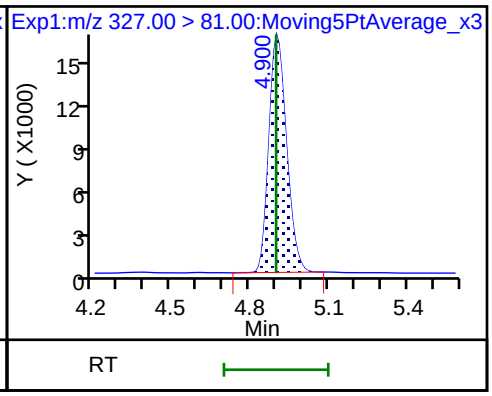
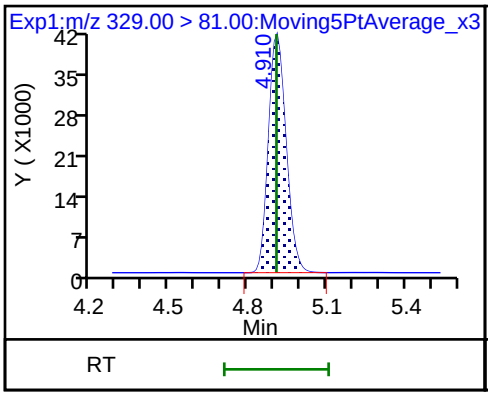
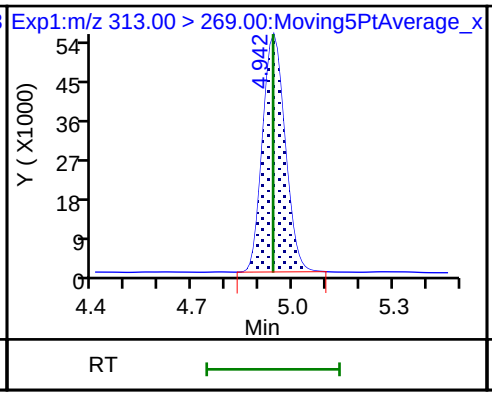


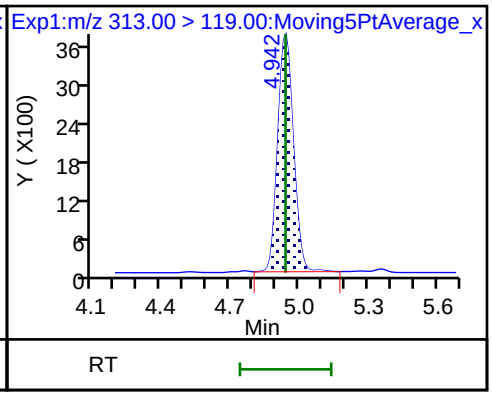
D 16 M2-4:2 FTS



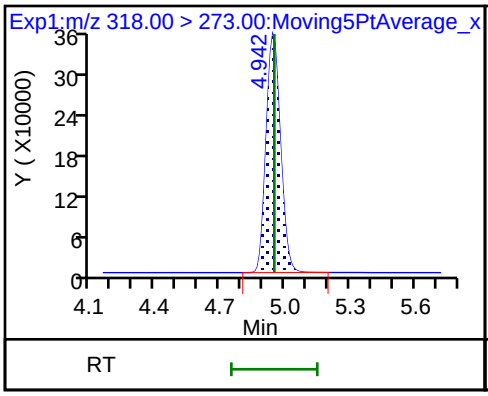
17 Perfluorohexanoic acid



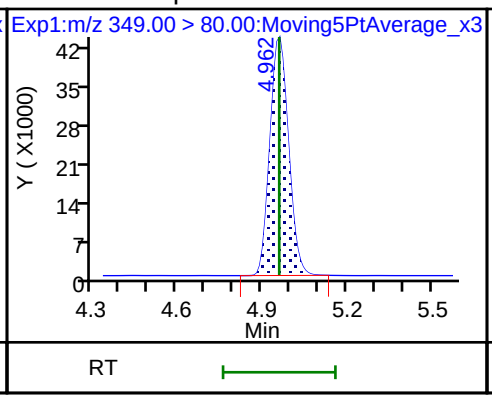
17 Perfluorohexanoic acid



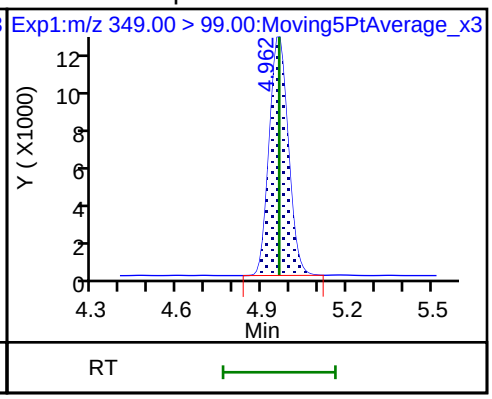
D 19 13C5 PFHxA



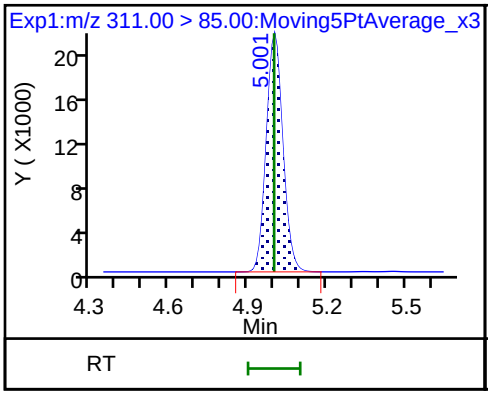
20 Perfluoropentanesulfonic acid



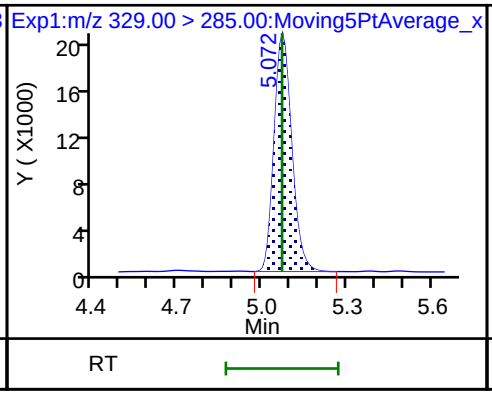
20 Perfluoropentanesulfonic acid



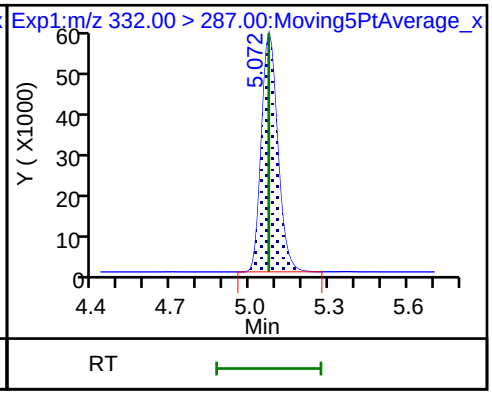
93 PFO3OA



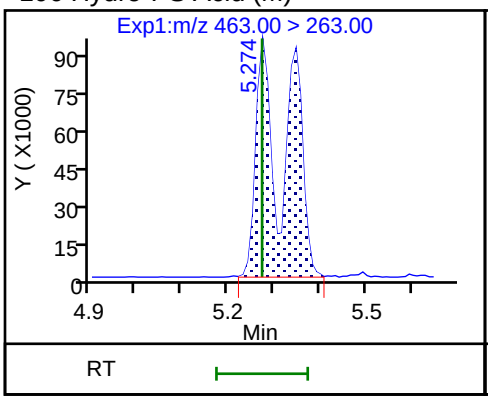
21 HFPO-DA



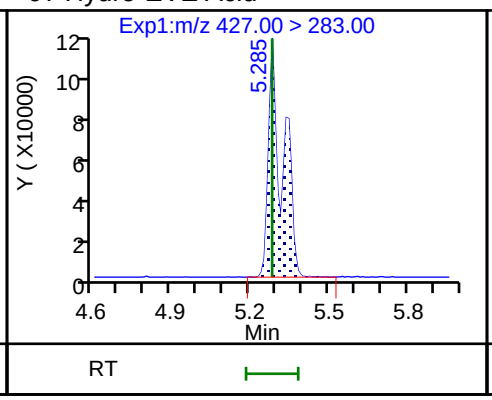
D 22 13C3 HFPO-DA



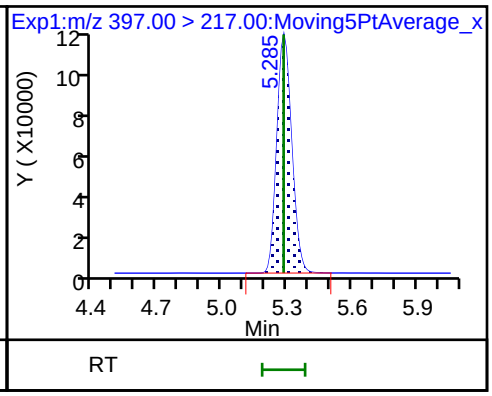
106 Hydro-PS Acid (M)



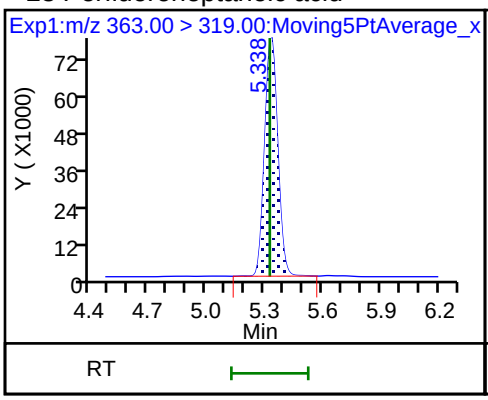
97 Hydro-EVE Acid



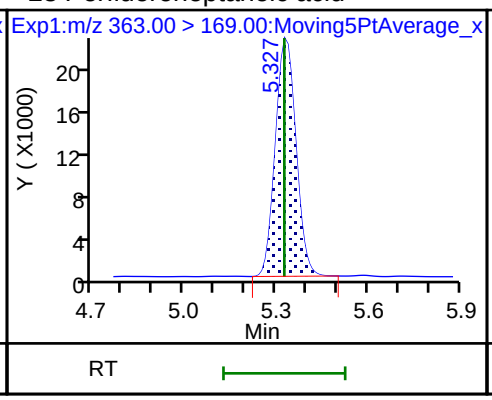
94 R-PSDCA



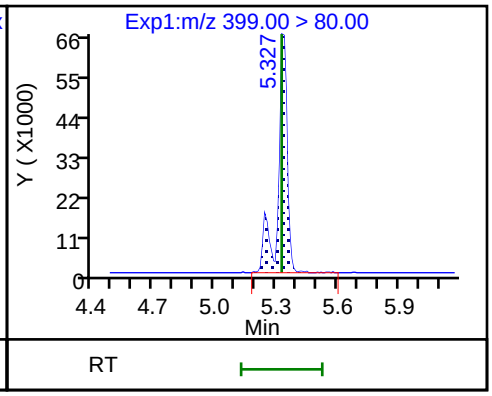
23 Perfluoroheptanoic acid



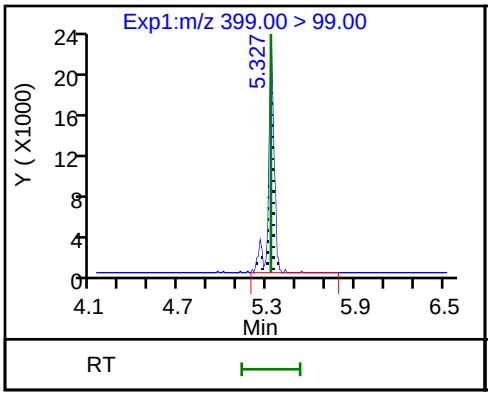
23 Perfluoroheptanoic acid



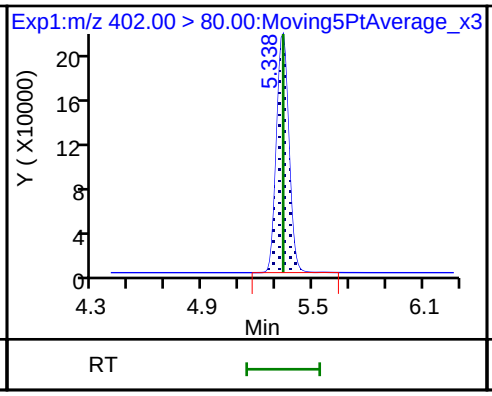
26 Perfluorohexanesulfonic acid



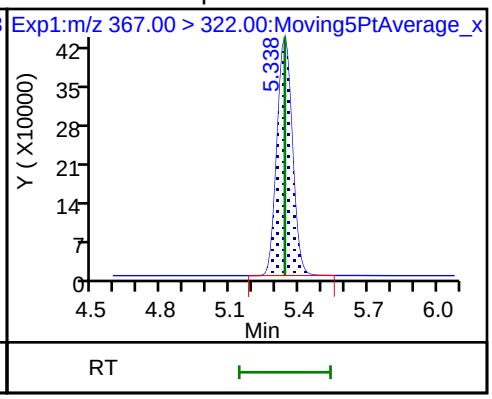
26 Perfluorohexanesulfonic acid



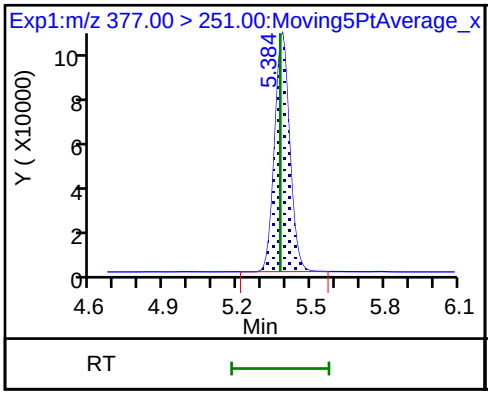
D 25 13C3 PFHxS



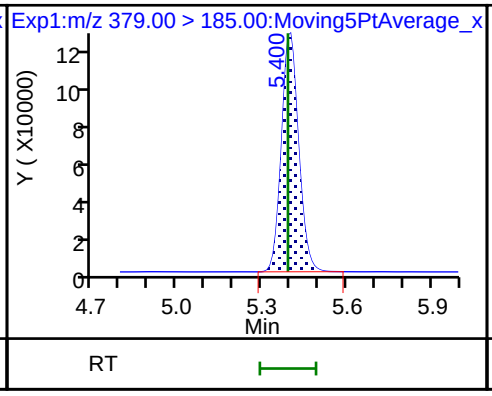
D 24 13C4 PFHpA



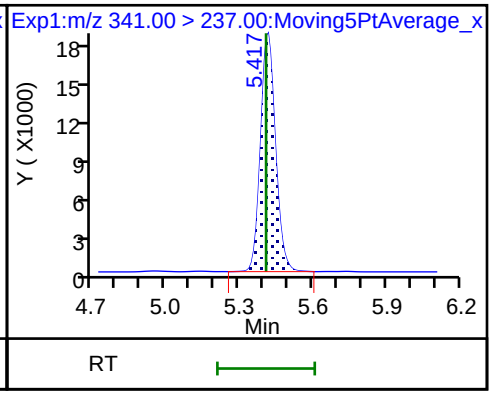
27 DONA



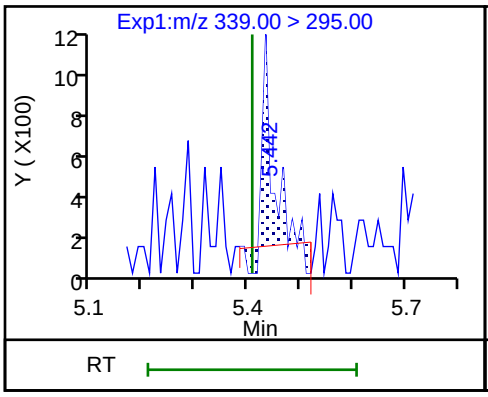
98 PFECA G



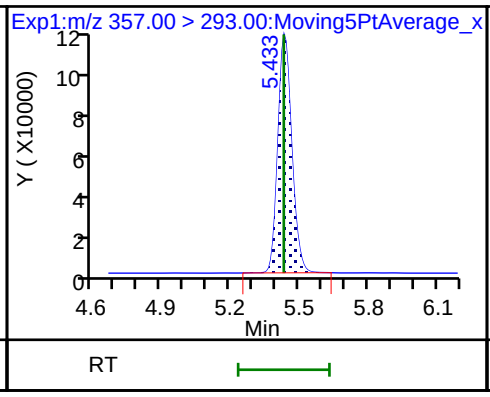
28 5:3 FTCA



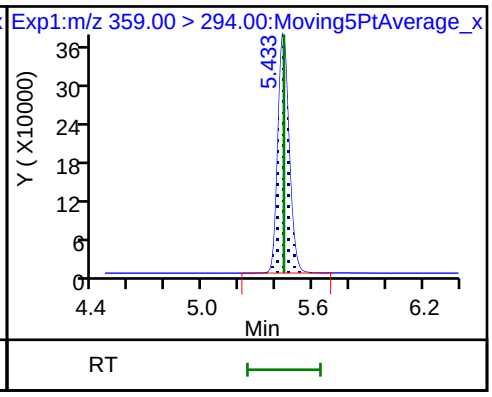
28 5:3 FTCA



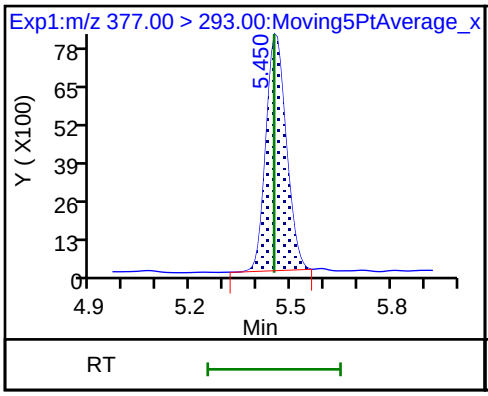
29 6:2 FTUCA



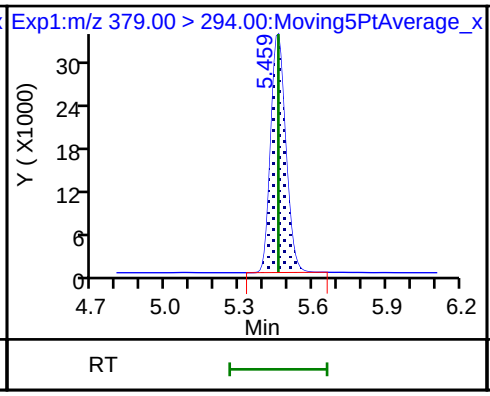
D 30 13C-6:2 FTUCA



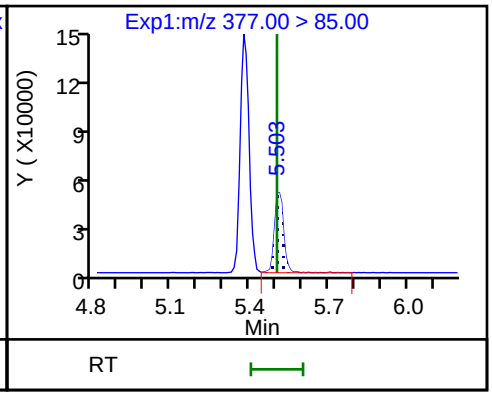
32 6:2 FTCA



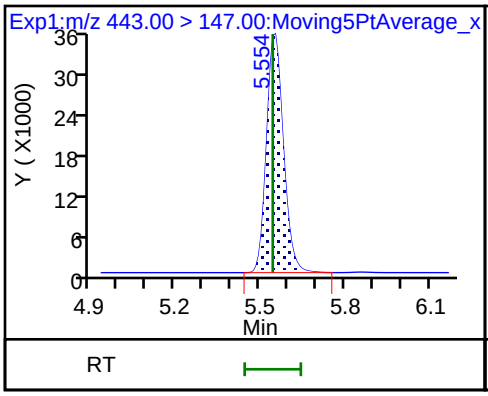
D 31 13C-6:2 FTCA



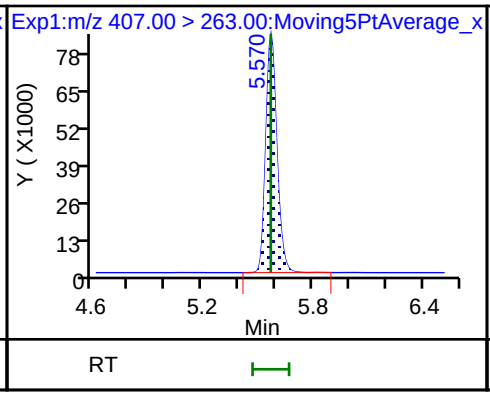
95 PFO4DA



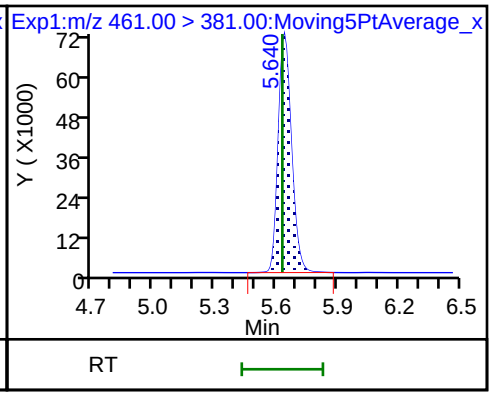
104 PS Acid



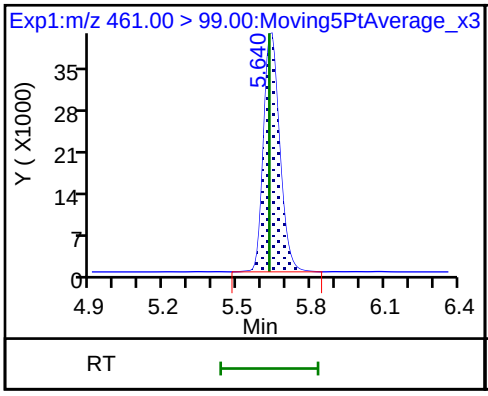
90 EVE Acid



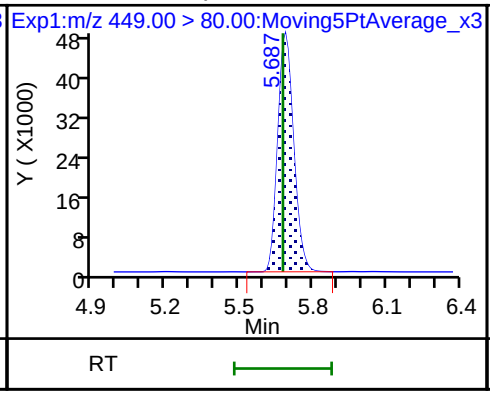
33 PFECHS



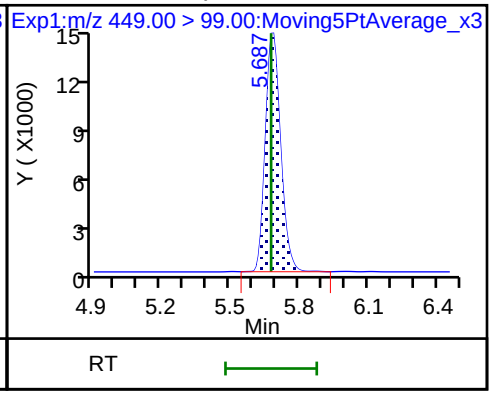
33 PFECHS



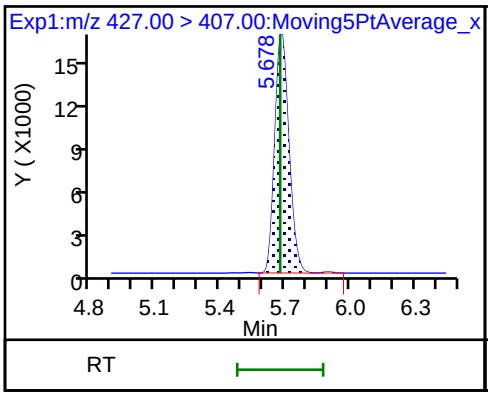
36 Perfluoroheptanesulfonic acid



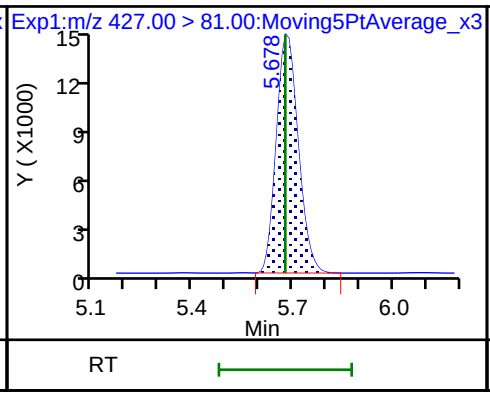
36 Perfluoroheptanesulfonic acid



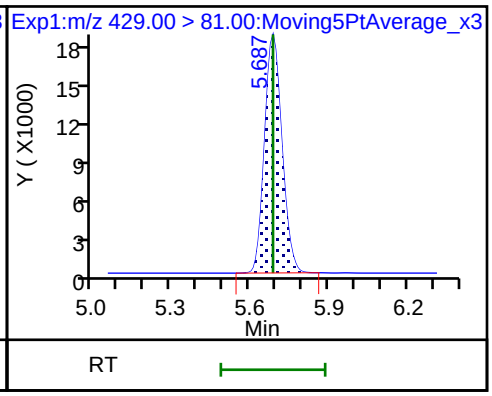
34 6:2 FTS



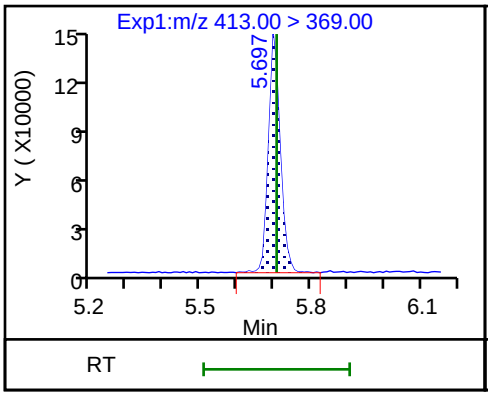
34 6:2 FTS



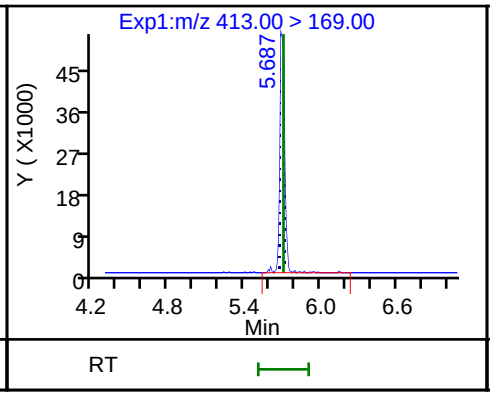
D 35 M2-6:2 FTS



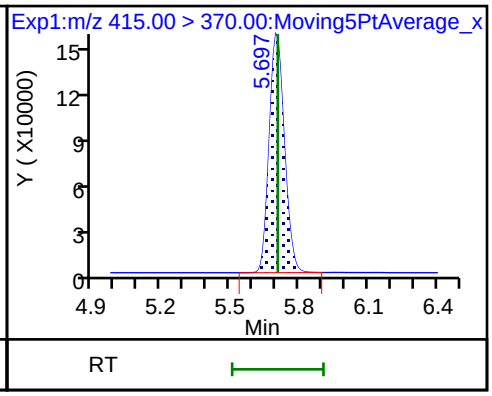
40 Perfluorooctanoic acid



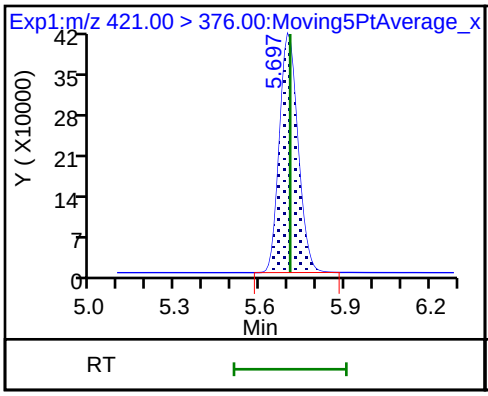
40 Perfluorooctanoic acid



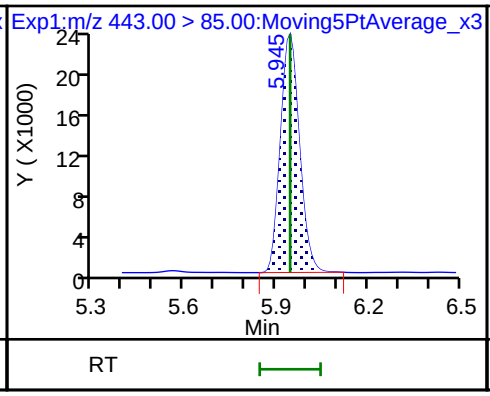
* 38 13C2 PFOA



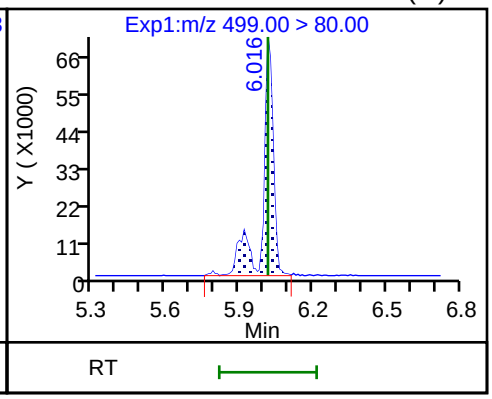
D 37 13C8 PFOA



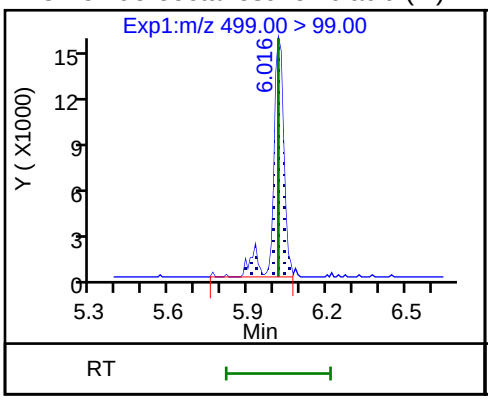
101 TAF



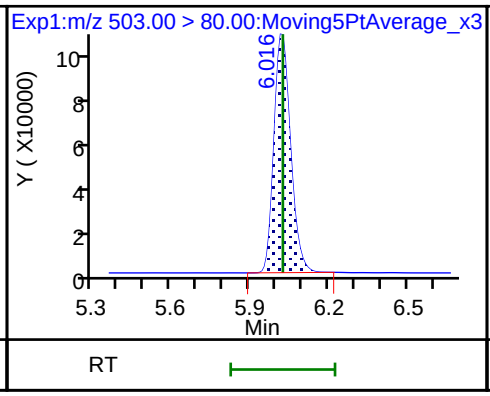
43 Perfluorooctanesulfonic acid (M)



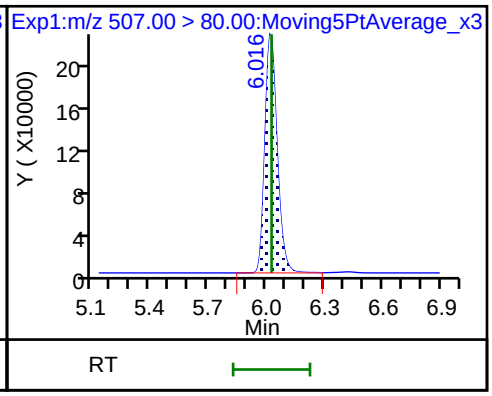
43 Perfluorooctanesulfonic acid (M)



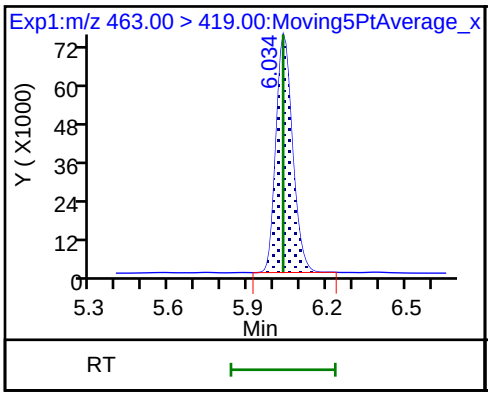
* 42 13C4 PFOS



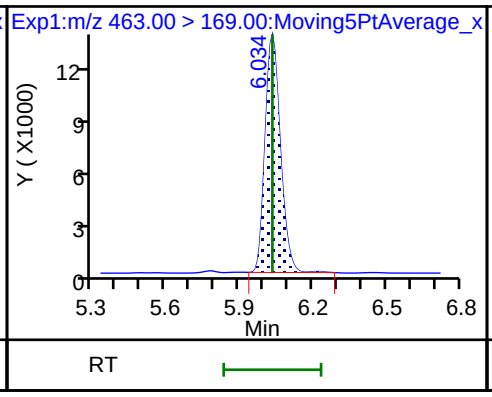
D 41 13C8 PFOS



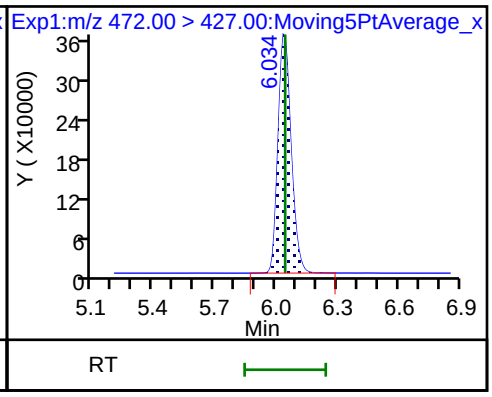
44 Perfluorononanoic acid



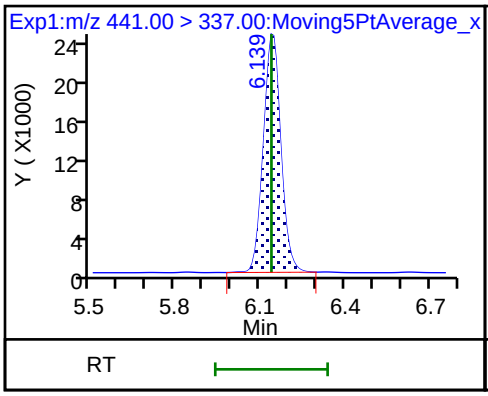
44 Perfluorononanoic acid



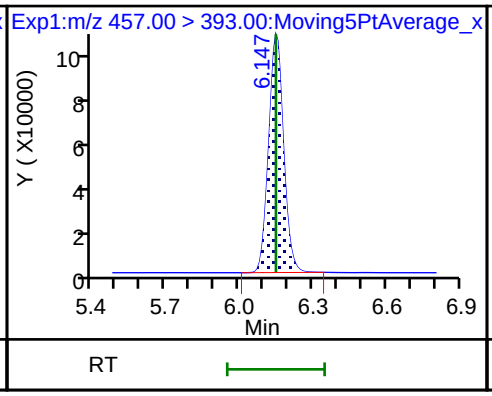
D 45 13C9 PFNA



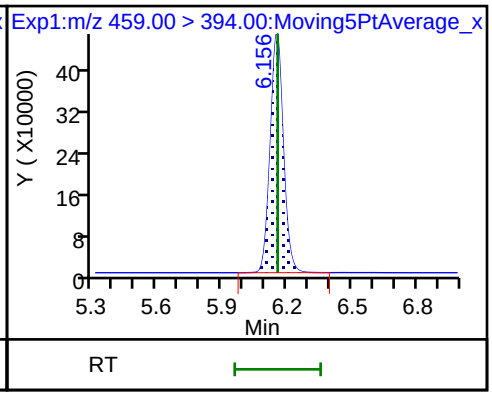
46 7:3 FTCA



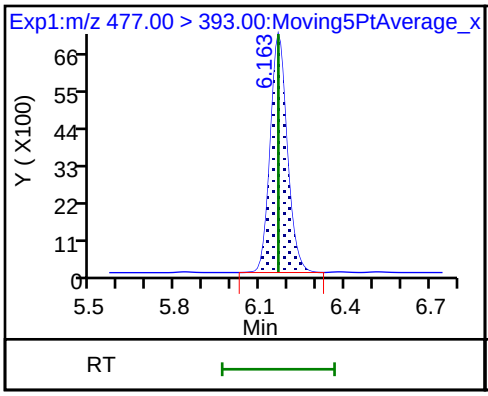
47 8:2 FTUCA



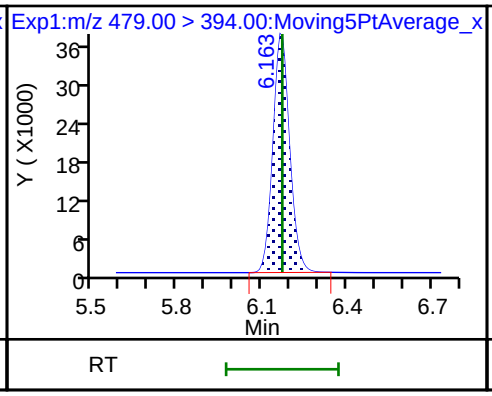
D 48 13C-8:2 FTUCA



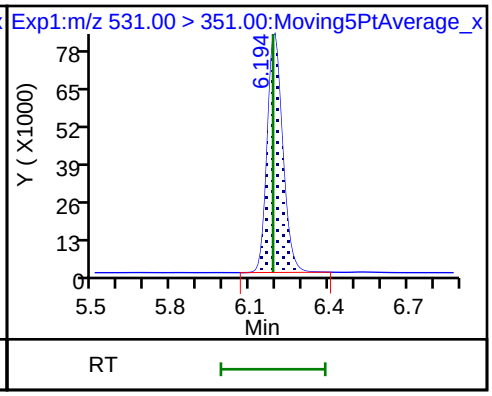
49 8:2 FTCA



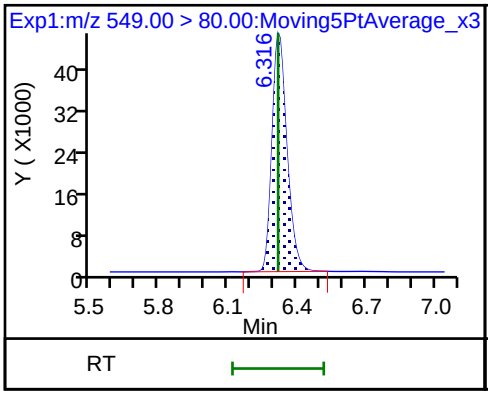
D 50 13C-8:2 FTCA



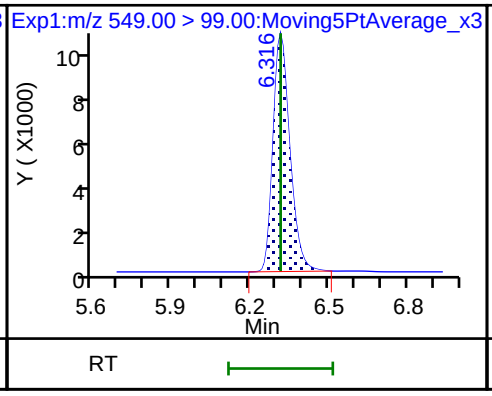
51 9ClFOS



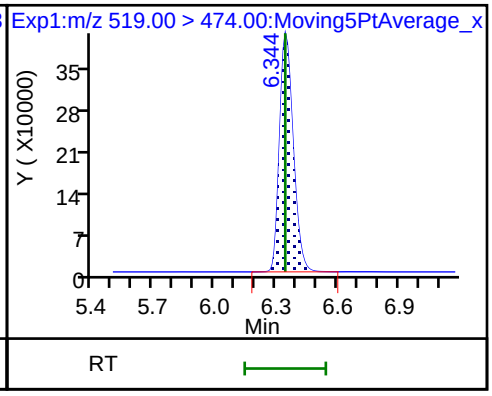
52 Perfluorononanesulfonic acid



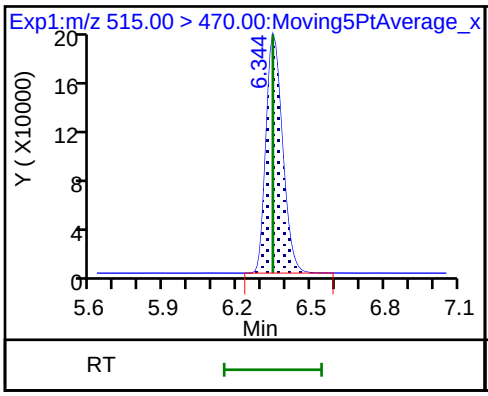
52 Perfluorononanesulfonic acid



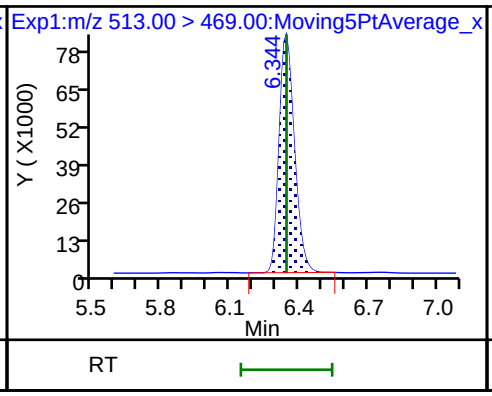
D 54 13C6 PFDA



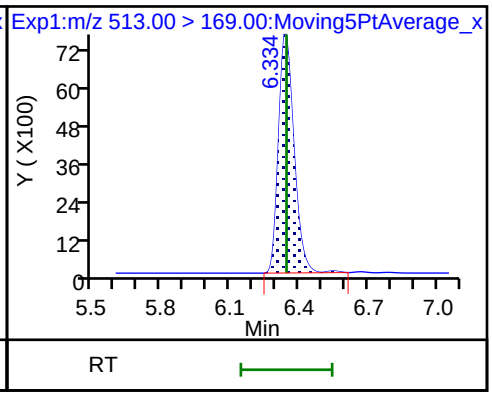
* 55 13C2 PFDA



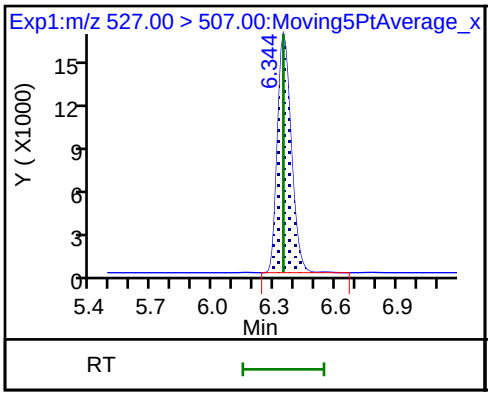
53 Perfluorodecanoic acid



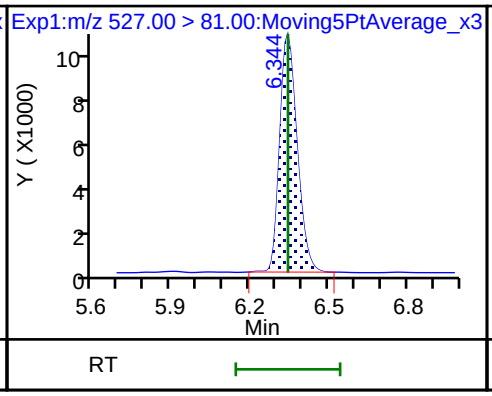
53 Perfluorodecanoic acid



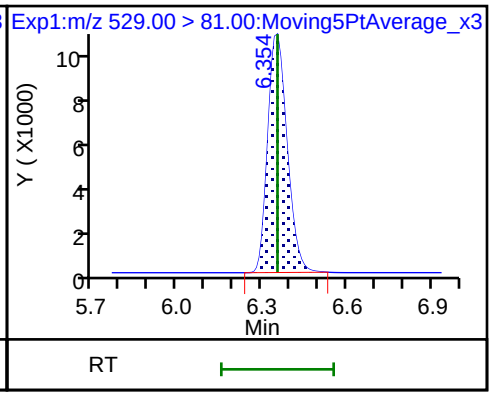
56 8:2 FTS



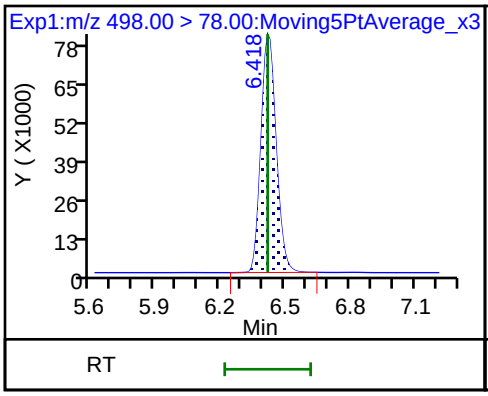
56 8:2 FTS



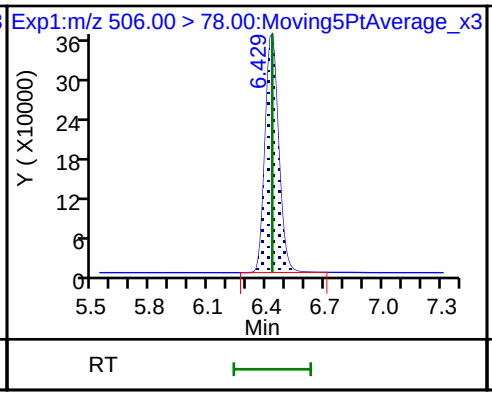
D 57 M2-8:2 FTS



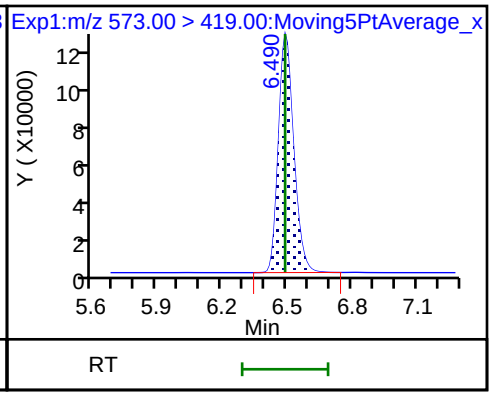
58 Perfluorooctanesulfonamide



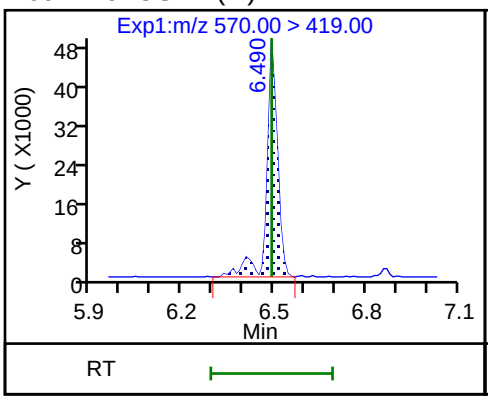
D 59 13C8 FOSA



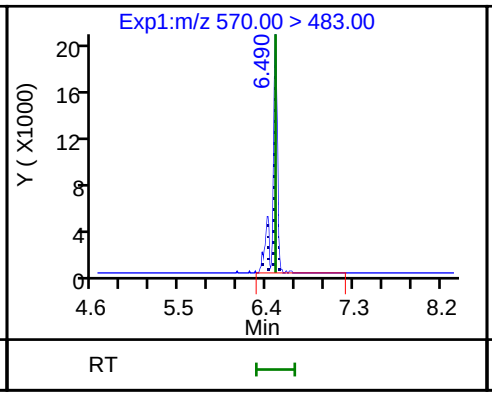
D 61 d3-NMeFOSAA



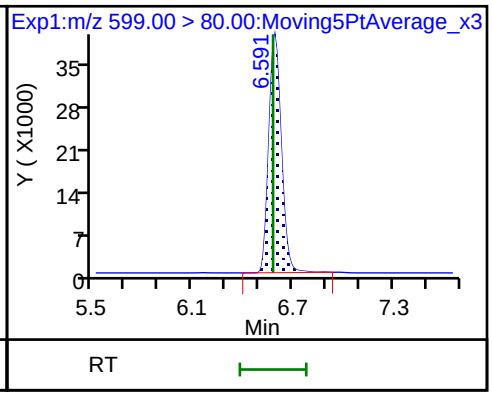
60 NMeFOSAA (M)



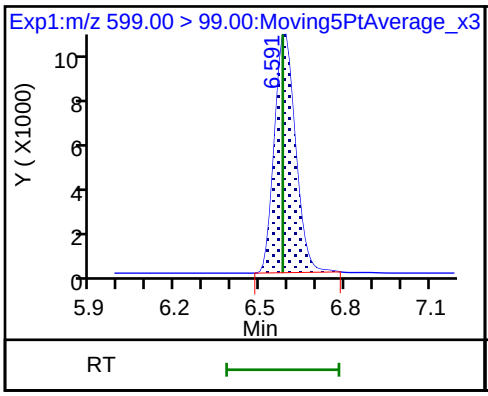
60 NMeFOSAA



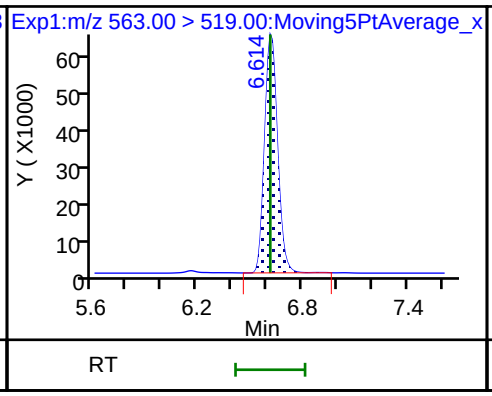
62 Perfluorodecanesulfonic acid



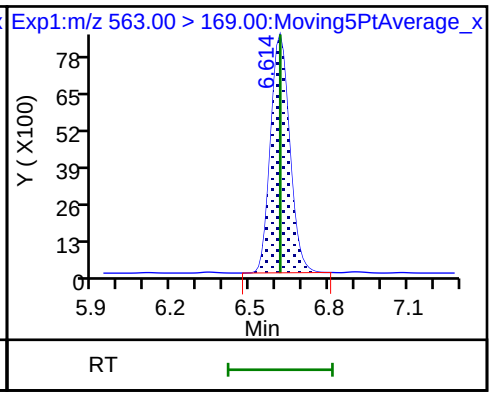
62 Perfluorodecanesulfonic acid



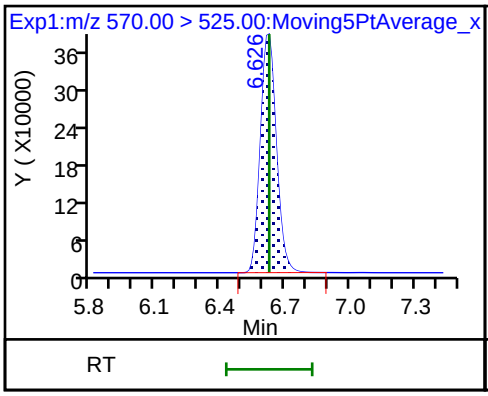
63 Perfluoroundecanoic acid



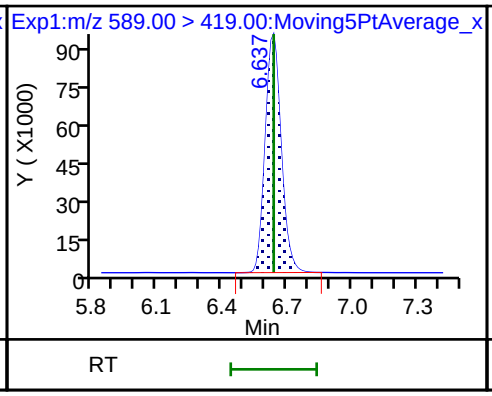
63 Perfluoroundecanoic acid



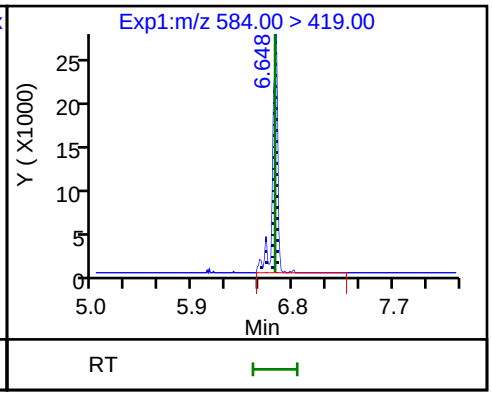
D 65 13C7 PFUnA



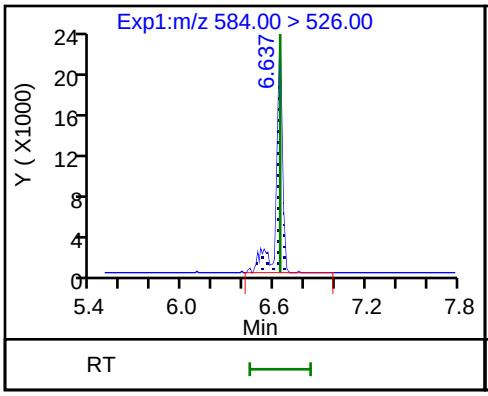
D 66 d5-NEtFOSAA



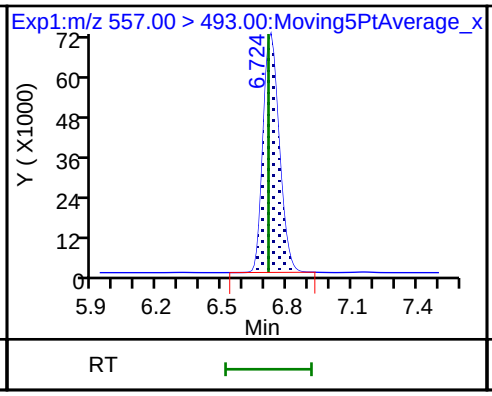
67 NEtFOSAA



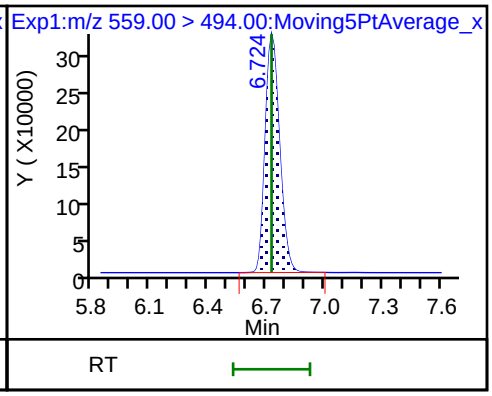
67 NEtFOSAA



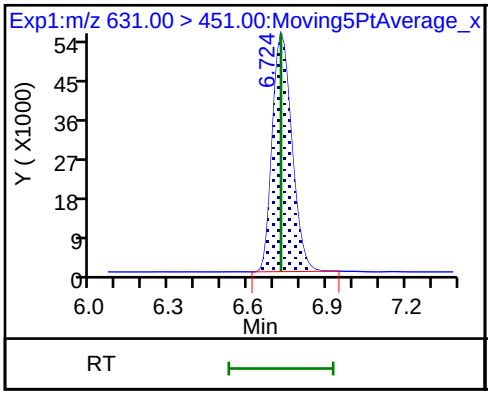
68 10:2 FTUCA



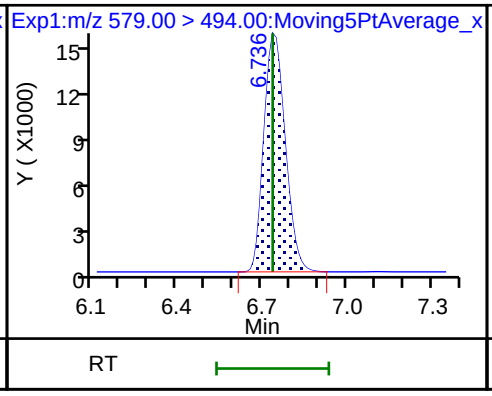
D 70 13C-10:2 FTUCA



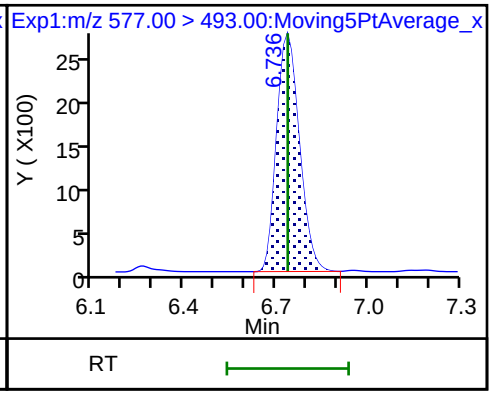
69 11ClFOS



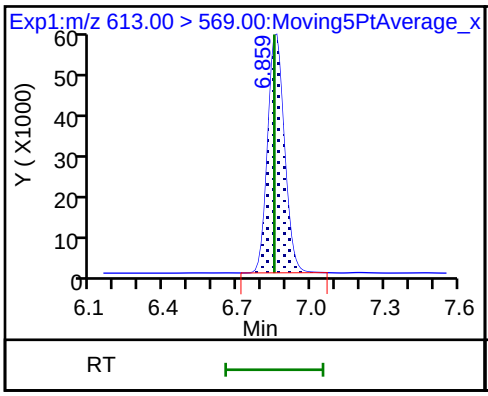
D 72 13C-10:2 FTCA



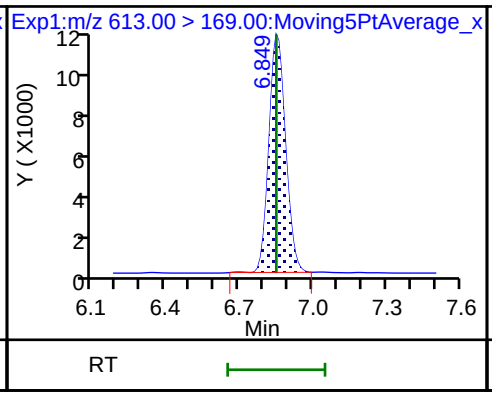
71 10:2 FTCA



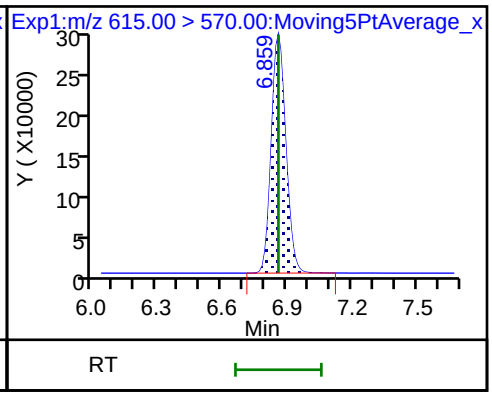
73 Perfluorododecanoic acid



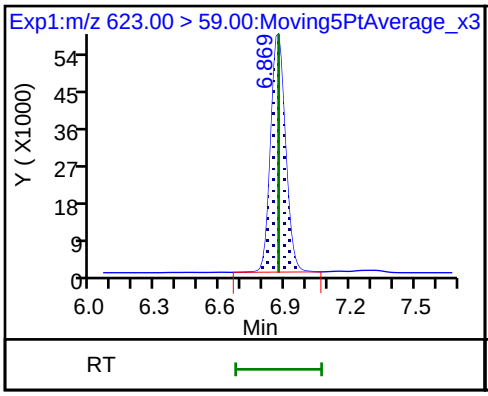
73 Perfluorododecanoic acid



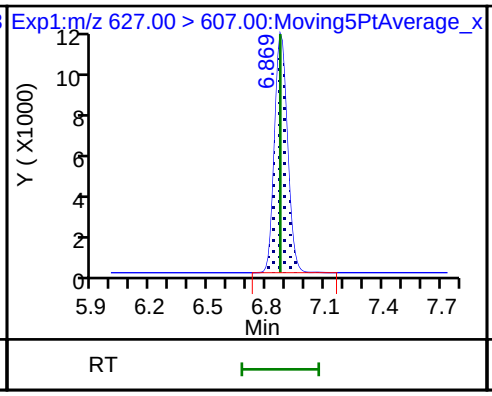
D 74 13C2-PFDoDA



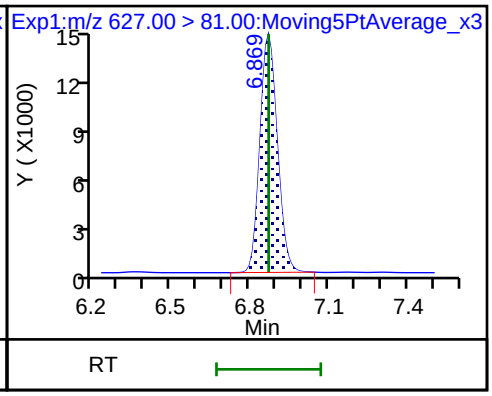
D 76 d7-N-MeFOSE-M



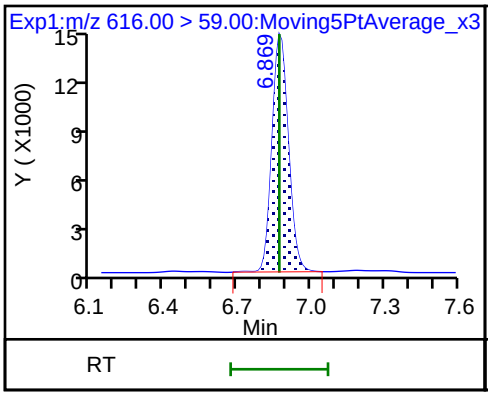
75 10:2 FTS



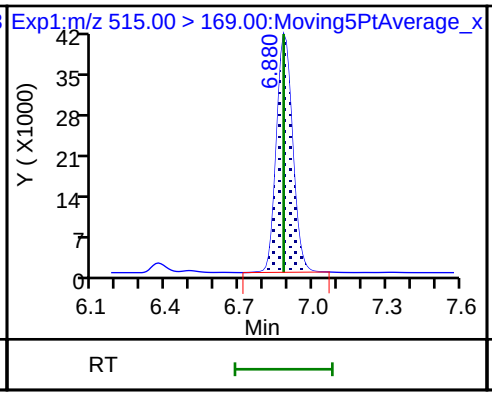
75 10:2 FTS



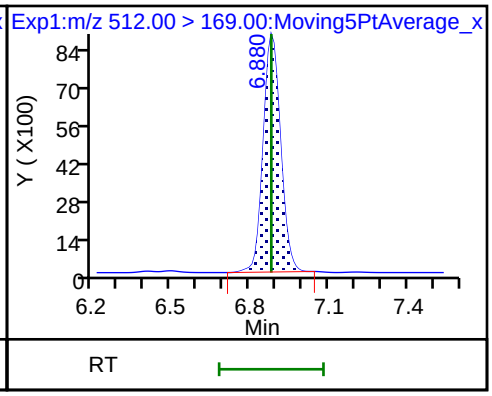
77 N-MeFOSE-M



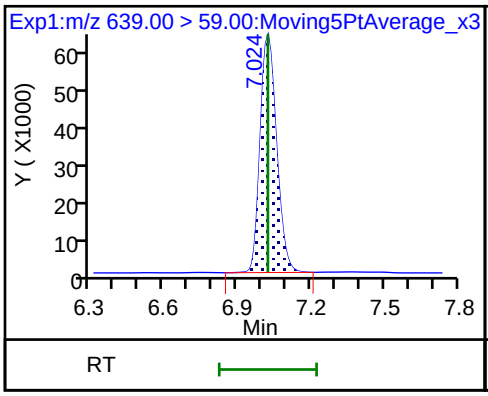
D 79 d3-NMePFOSA



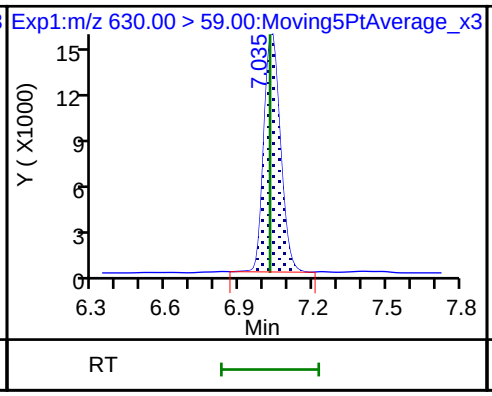
78 NMeFOSA



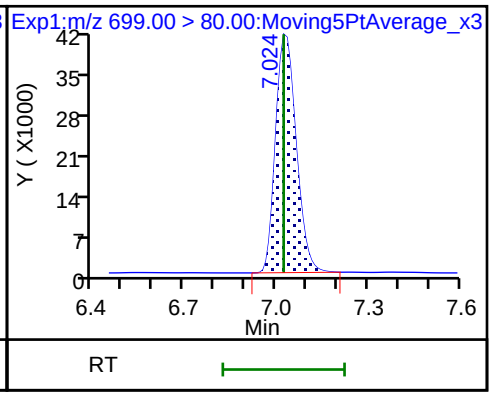
D 81 d9-N-EtFOSE-M



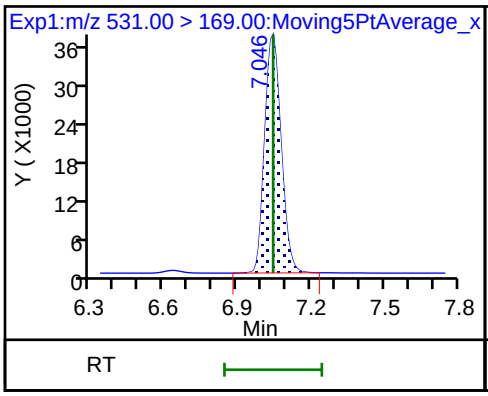
82 N-EtFOSE-M



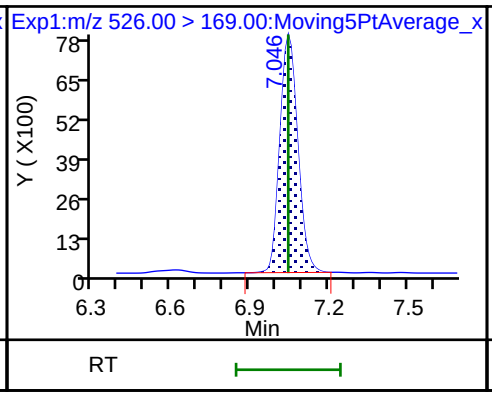
80 PFDoS



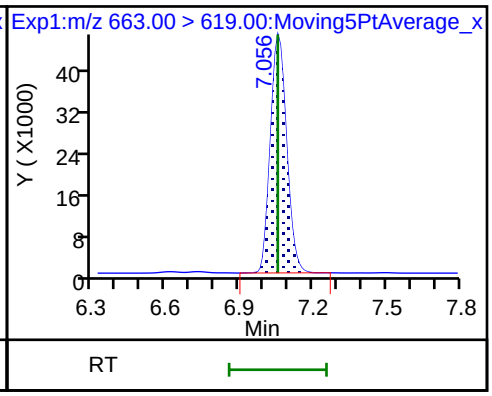
D 83 d5-NEtPFOSA



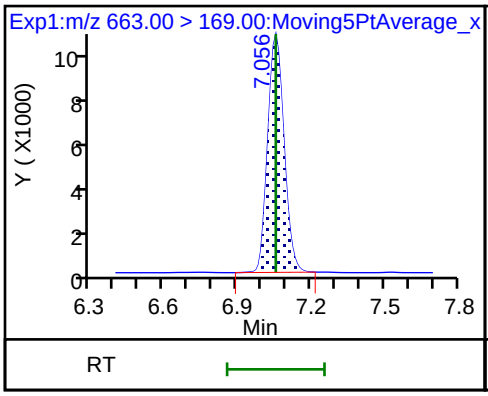
84 N-EtFOSA-M



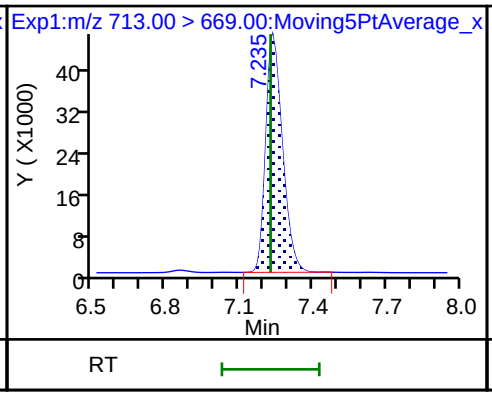
85 Perfluorotridecanoic acid



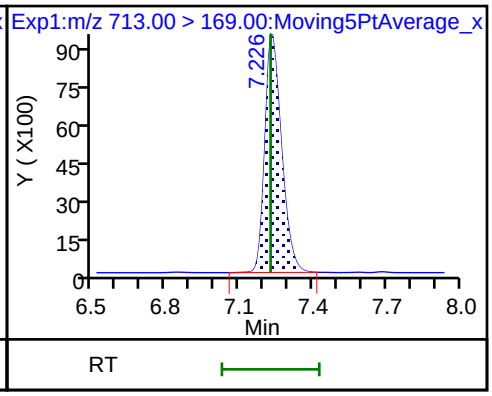
85 Perfluorotridecanoic acid



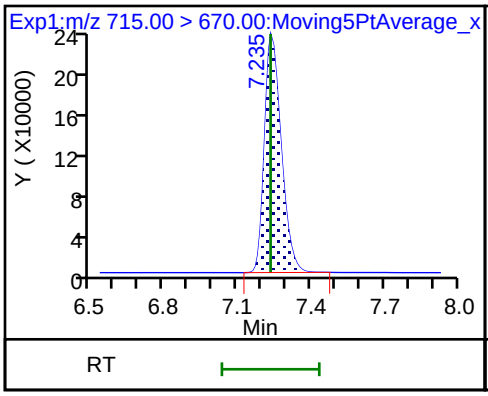
86 Perfluorotetradecanoic acid



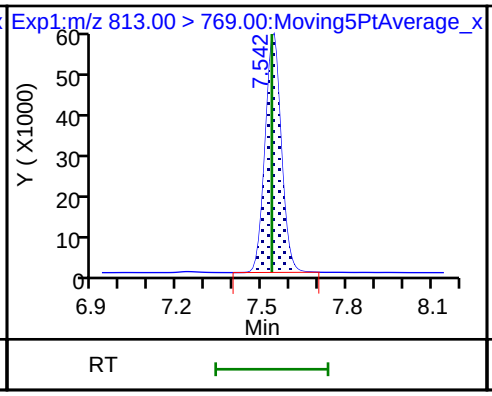
86 Perfluorotetradecanoic acid



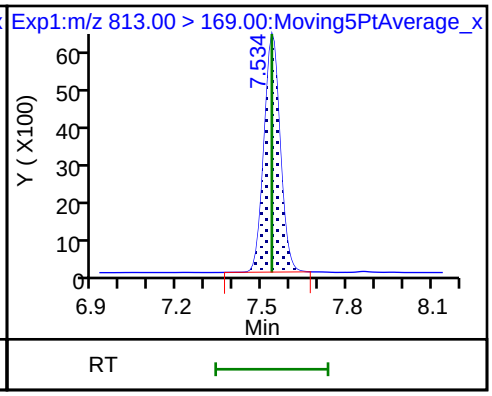
D 87 13C2 PFTeDA



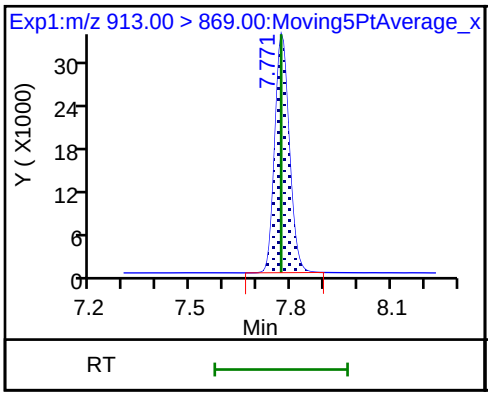
88 Perfluorohexadecanoic acid



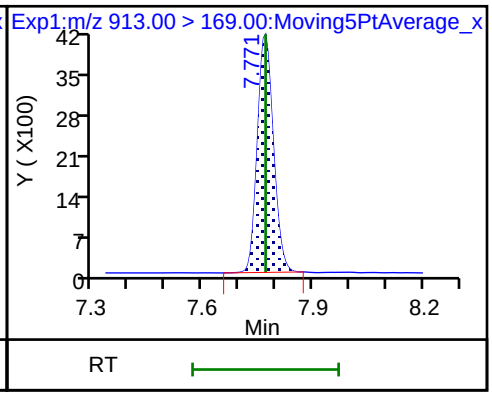
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

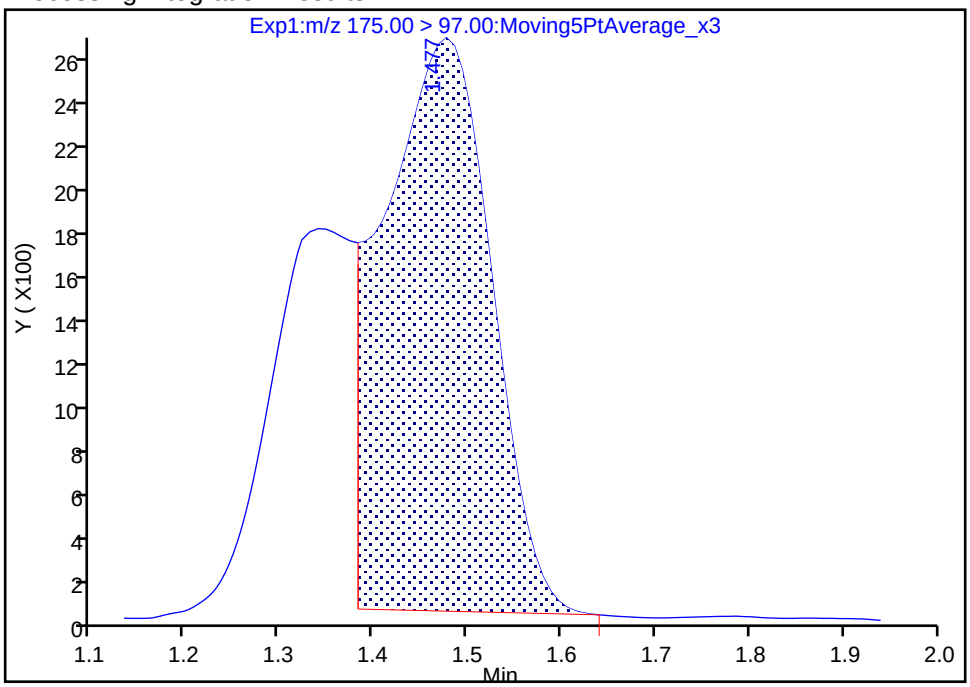
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-09.d				
Injection Date:	22-Feb-2022 16:40:49	Instrument ID:	30733		
Lims ID:	ICV				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20009	Worklist Smp#:	9
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

107 MTP, CAS: 93449-21-9

Signal: 1

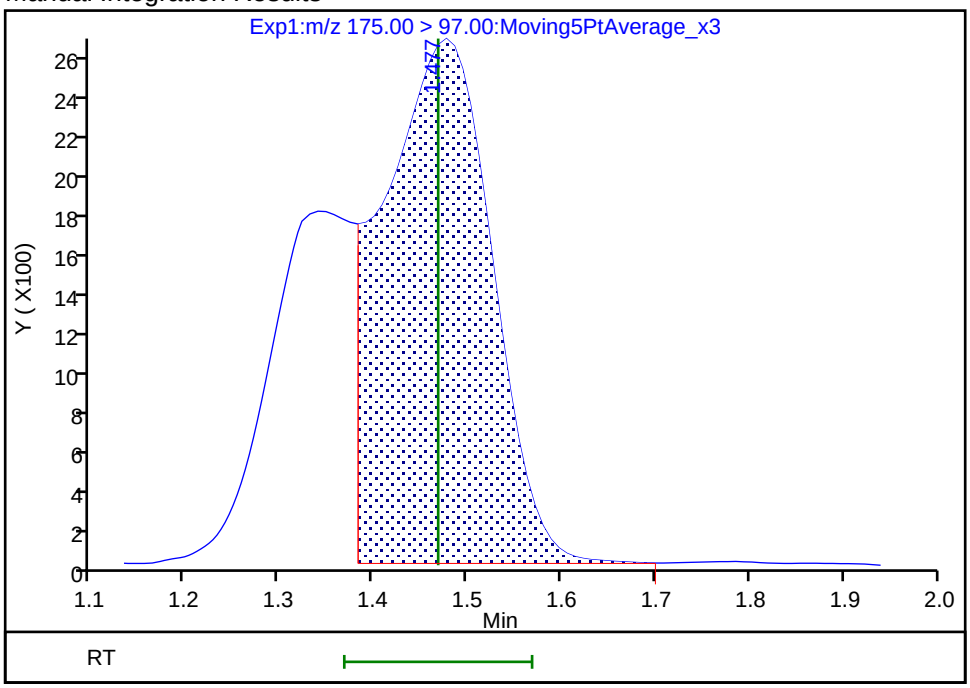
Processing Integration Results

RT: 1.48
Area: 20456
Amount: 0
Amount Units: ng/ml



Manual Integration Results

RT: 1.48
Area: 20930
Amount: 2.090524
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 21:11:44

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

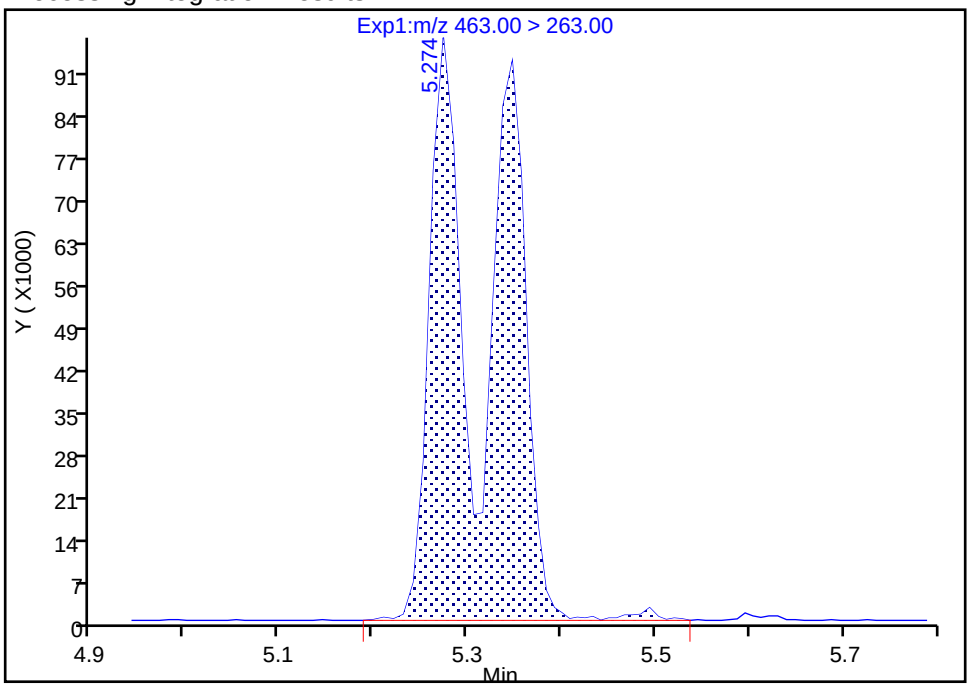
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-09.d				
Injection Date:	22-Feb-2022 16:40:49	Instrument ID:	30733		
Lims ID:	ICV				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20009	Worklist Smp#:	9
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

106 Hydro-PS Acid, CAS: 749836-20-2

Signal: 1

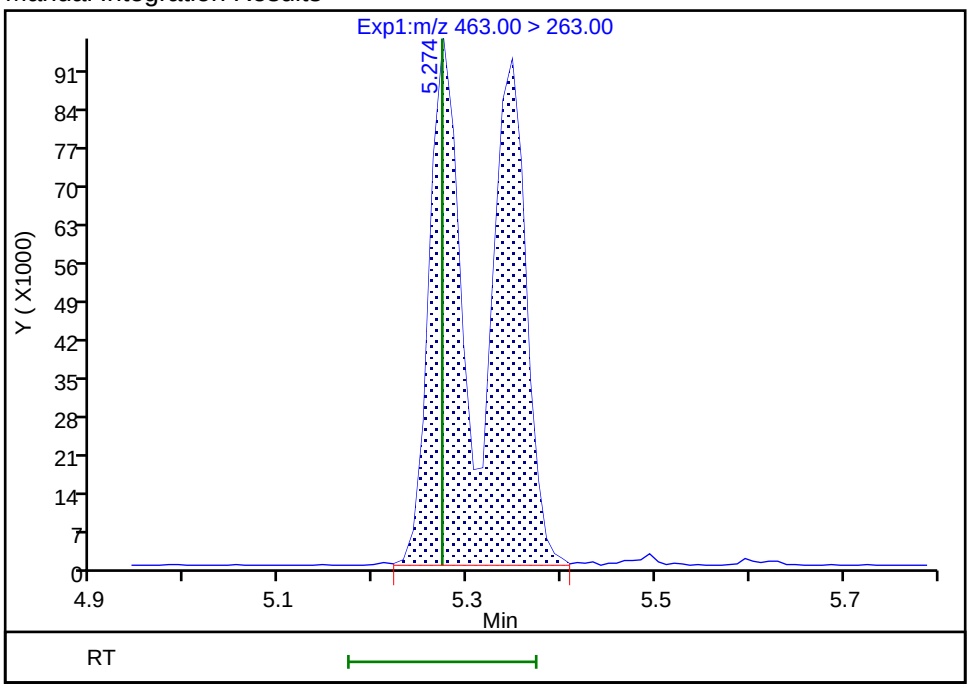
Processing Integration Results

RT: 5.27
Area: 444188
Amount: 0
Amount Units: ng/ml



Manual Integration Results

RT: 5.27
Area: 439242
Amount: 2.149153
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 21:12:05

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

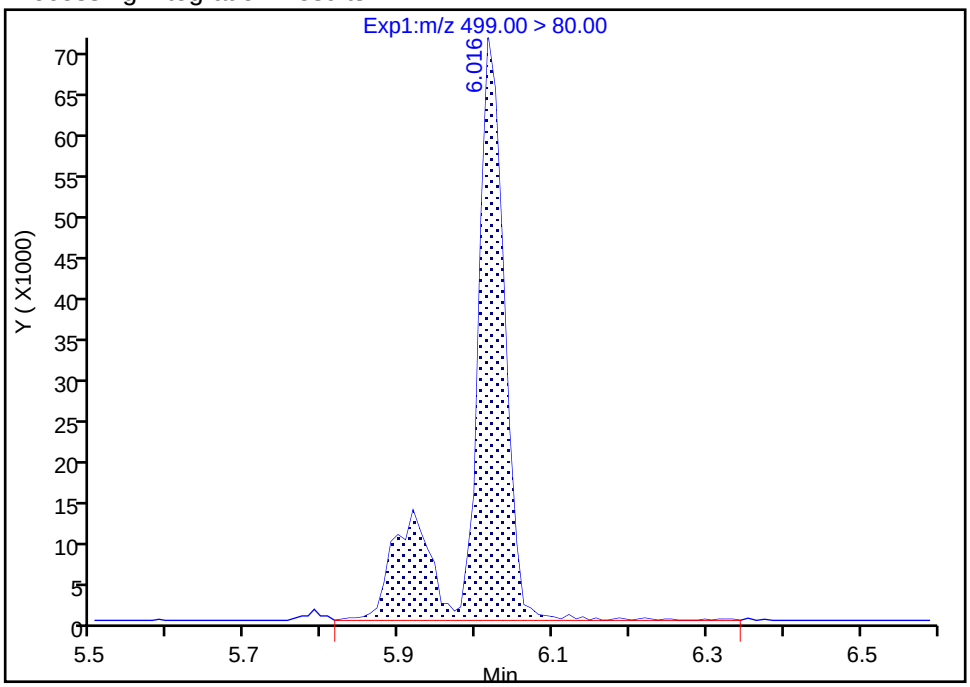
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-09.d				
Injection Date:	22-Feb-2022 16:40:49	Instrument ID:	30733		
Lims ID:	ICV				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20009	Worklist Smp#:	9
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

43 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

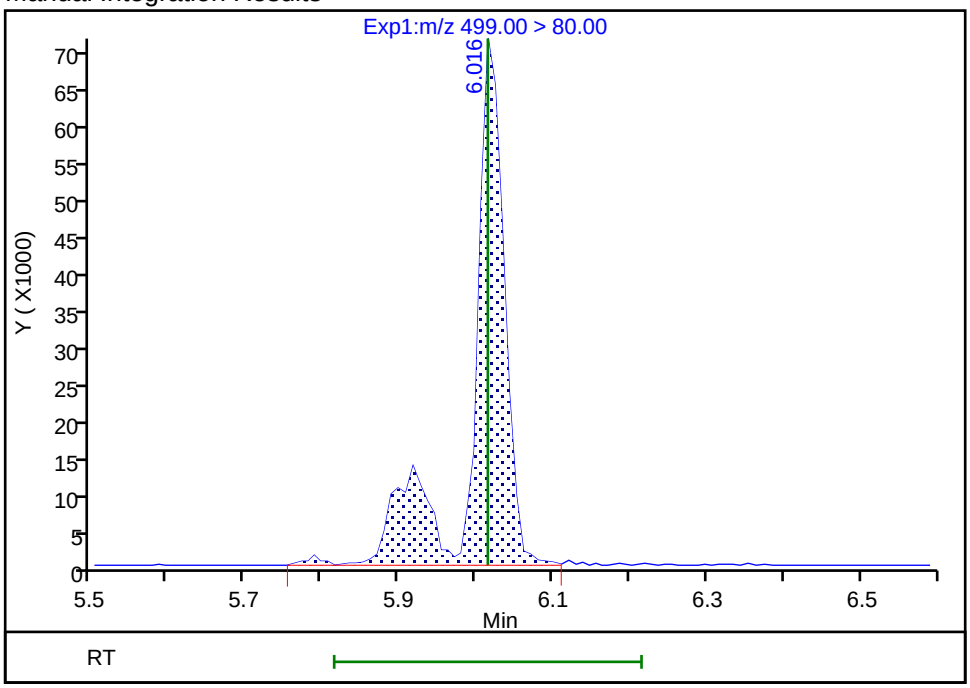
Processing Integration Results

RT: 6.02
Area: 210321
Amount: 1.850863
Amount Units: ng/ml



Manual Integration Results

RT: 6.02
Area: 210430
Amount: 1.894856
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 21:11:03

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

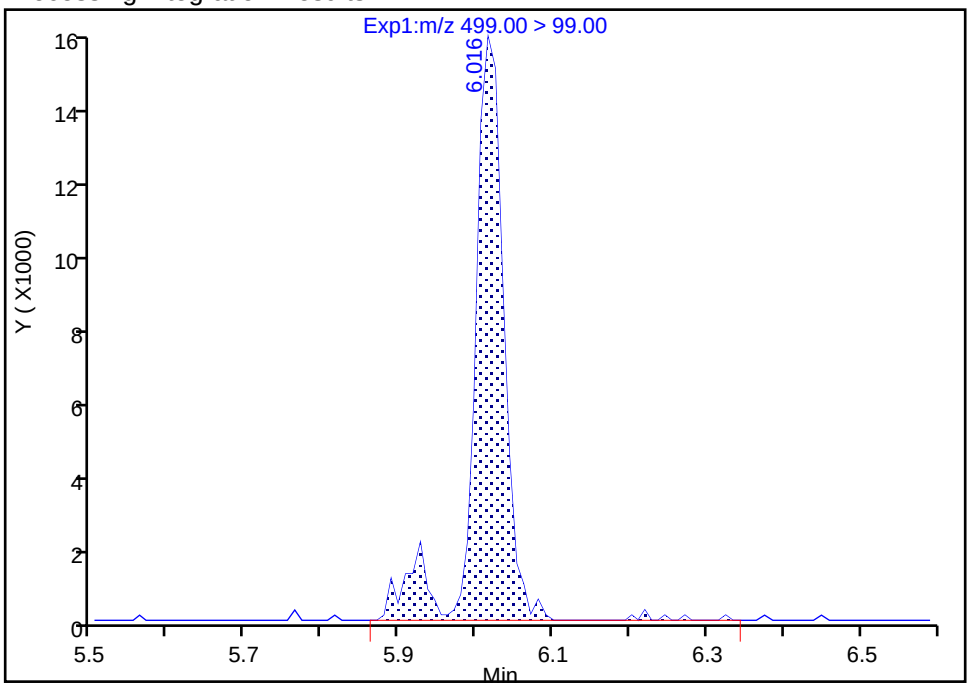
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-09.d				
Injection Date:	22-Feb-2022 16:40:49	Instrument ID:	30733		
Lims ID:	ICV				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20009	Worklist Smp#:	9
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

43 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

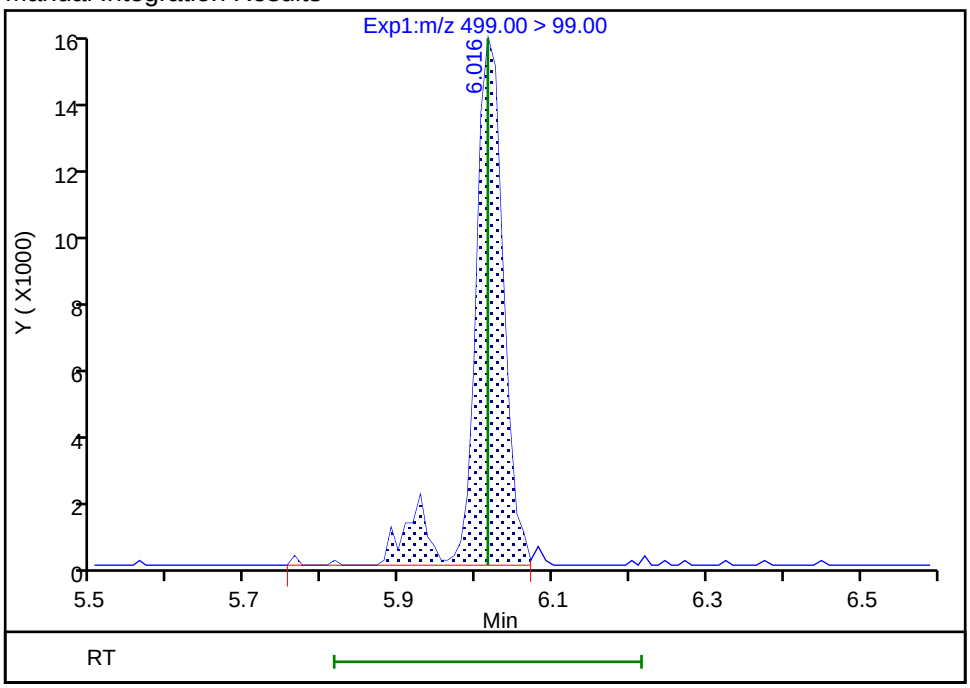
Processing Integration Results

RT: 6.02
Area: 43511
Amount: 1.850863
Amount Units: ng/ml



Manual Integration Results

RT: 6.02
Area: 42851
Amount: 1.894856
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 21:11:06

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

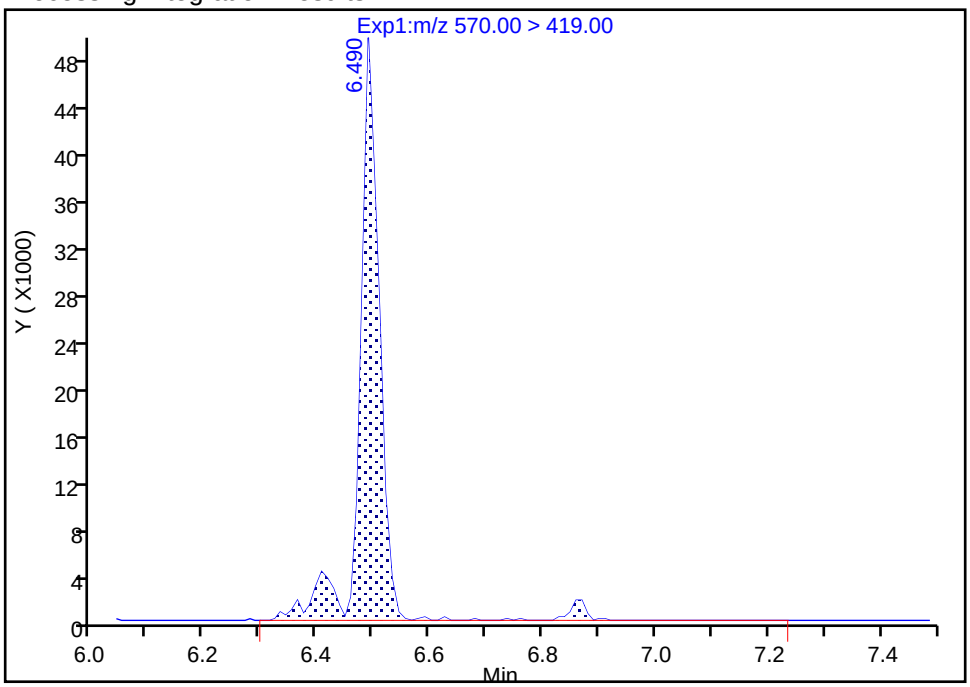
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-09.d				
Injection Date:	22-Feb-2022 16:40:49	Instrument ID:	30733		
Lims ID:	ICV				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20009	Worklist Smp#:	9
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

60 NMeFOSAA, CAS: 2355-31-9

Signal: 1

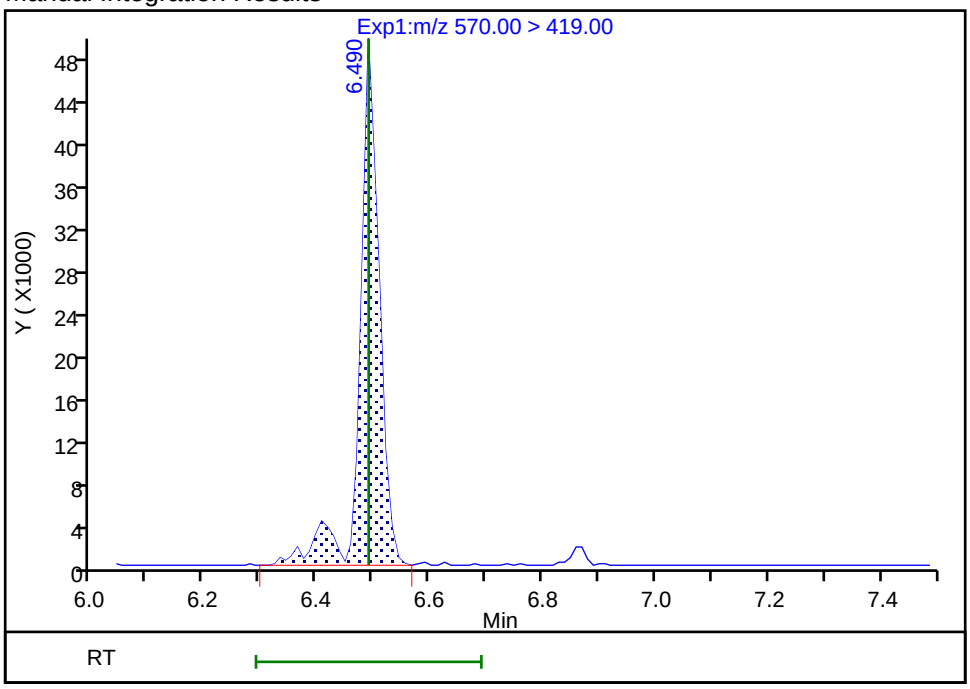
Processing Integration Results

RT: 6.49
Area: 122315
Amount: 2.356327
Amount Units: ng/ml



Manual Integration Results

RT: 6.49
Area: 118110
Amount: 2.332507
Amount Units: ng/ml



Reviewer: fellenbauma, 22-Feb-2022 21:12:33

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-226634/56 Calibration Date: 02/23/2022 08:40

Instrument ID: 30733 Calib Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 02/22/2022 16:18

Lab File ID: 22FEB22-60.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
MTP	AveID	0.0614	0.0577		1.88	2.00	-5.9	30.0
PPF Acid	AveID	0.4927	0.4701		1.91	2.00	-4.6	30.0
PFMOAA	AveID	0.3009	0.2752		1.83	2.00	-8.5	30.0
R-EVE	AveID	0.0771	0.0781		2.02	2.00	1.2	30.0
R-PSDA	AveID	0.0312	0.0318		2.04	2.00	2.1	30.0
Hydrolyzed PSDA	AveID	0.1569	0.1554		1.98	2.00	-1.0	30.0
Perfluorobutanoic acid	AveID	0.9428	0.9495		2.01	2.00	0.7	30.0
PMPA	AveID	0.4361	0.4237		1.94	2.00	-2.8	30.0
Perfluoropropanesulfonic acid	AveID	0.2294	0.2476		1.98	1.83	8.0	30.0
NVHOS	AveID	0.2865	0.2907		2.03	2.00	1.5	30.0
PFECA F	AveID	0.8975	1.037		2.31	2.00	15.5	30.0
PFO2HxA	AveID	0.3028	0.2910		1.92	2.00	-3.9	30.0
Perfluoropentanoic acid	AveID	1.038	1.082		2.09	2.00	4.3	30.0
3:3 FTCA	AveID	0.0670	0.0766		2.29	2.00	14.3	30.0
Perfluorobutanesulfonic acid	AveID	1.076	1.054		1.73	1.77	-2.0	30.0
PEPA	AveID	0.1836	0.1726		1.88	2.00	-6.0	30.0
PFECA A	AveID	0.9558	0.9482		1.98	2.00	-0.8	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	3.328	3.412		1.82	1.78	2.5	30.0
PFECA B	AveID	1.174	1.175		2.00	2.00	0.1	30.0
4:2 Fluorotelomer sulfonic acid	AveID	3.114	3.369		2.02	1.87	8.2	30.0
Perfluorohexanoic acid	AveID	0.8387	0.8392		2.00	2.00	0.0	30.0
Perfluoropentanesulfonic acid	AveID	0.9445	1.023		2.03	1.88	8.3	30.0
PFO3OA	AveID	0.2857	0.2653		1.86	2.00	-7.1	30.0
HFPODA	AveID	1.913	1.998		2.09	2.00	4.5	30.0
Hydro-EVE Acid	AveID	1.264	1.295		2.05	2.00	2.4	30.0
R-PSDCA	AveID	2.381	2.325		1.95	2.00	-2.3	30.0
Perfluoroheptanoic acid	AveID	1.010	1.084		2.15	2.00	7.3	30.0
Perfluorohexanesulfonic acid	AveID	1.087	1.117		1.88	1.82	2.8	30.0
Hydro-PS Acid	AveID	1.882	1.956		2.08	2.00	3.9	30.0
DONA	AveID	1.274	1.300		1.93	1.89	2.0	30.0
PFECA G	AveID	1.449	1.538		2.12	2.00	6.2	30.0
5:3 FTCA	AveID	0.2016	0.2185		2.17	2.00	8.4	30.0
6:2 FTUCA	AveID	1.359	1.513		2.23	2.00	11.3	30.0
6:2 FTCA	AveID	1.055	1.128		2.14	2.00	7.0	30.0
PFO4DA	AveID	0.3310	0.3342		2.02	2.00	1.0	30.0
PS Acid	AveID	0.5979	0.5821		1.95	2.00	-2.6	30.0
EVE Acid	AveID	0.9669	1.011		2.09	2.00	4.6	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.777	1.785		1.86	1.85	0.4	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-226634/56 Calibration Date: 02/23/2022 08:40

Instrument ID: 30733 Calib Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 02/22/2022 16:18

Lab File ID: 22FEB22-60.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
6:2 Fluorotelomer sulfonic acid	AveID	4.509	4.781		2.01	1.90	6.0	30.0
Perfluoroheptanesulfonic acid	AveID	1.015	1.075		2.02	1.90	5.9	30.0
Perfluorooctanoic acid	AveID	0.7647	0.8372		2.19	2.00	9.5	30.0
TAF	AveID	0.2952	0.3020		2.05	2.00	2.3	30.0
Perfluorooctanesulfonic acid	AveID	1.066	1.118		1.94	1.85	4.9	30.0
Perfluorononanoic acid	AveID	0.9259	0.9733		2.10	2.00	5.1	30.0
7:3 FTCA	AveID	3.296	3.450		2.09	2.00	4.7	30.0
8:2 FTUCA	AveID	1.066	1.105		2.07	2.00	3.7	30.0
8:2 FTCA	AveID	0.9382	0.9756		2.08	2.00	4.0	30.0
9Cl-PF3ONS	AveID	1.819	1.958		2.00	1.86	7.7	30.0
Perfluorononanesulfonic acid	AveID	0.999	1.157		2.22	1.92	15.8	30.0
8:2 Fluorotelomer sulfonic acid	AveID	7.728	7.823		1.94	1.92	1.2	30.0
Perfluorodecanoic acid	AveID	0.9790	1.029		2.10	2.00	5.1	30.0
Perfluorooctanesulfonamide	AveID	1.005	1.021		2.03	2.00	1.7	30.0
NMeFOSAA	AveID	0.8244	0.8116		1.97	2.00	-1.6	30.0
Perfluorodecanesulfonic acid	AveID	1.038	1.110		2.06	1.93	6.9	30.0
Perfluoroundecanoic acid	AveID	0.8828	0.9754		2.21	2.00	10.5	30.0
NEtFOSAA	AveID	0.8916	1.064		2.39	2.00	19.4	30.0
10:2 FTUCA	AveID	1.022	1.103		2.16	2.00	7.9	30.0
11Cl-PF3OUdS	AveID	1.333	1.498		2.09	1.86	12.4	30.0
10:2 FTCA	L1ID		1.030		2.16	2.00	7.8	30.0
Perfluorododecanoic acid	AveID	1.018	1.019		2.00	2.00	0.1	30.0
10:2 FTS	AveID	5.124	5.199		1.96	1.93	1.5	30.0
NMeFOSE	AveID	1.069	1.126		2.11	2.00	5.4	30.0
NMeFOSA	AveID	1.122	1.084		1.93	2.00	-3.4	30.0
NEtFOSE	AveID	1.041	1.090		2.09	2.00	4.7	30.0
Perfluorododecanesulfonic acid	AveID	0.9567	1.026		2.08	1.94	7.2	30.0
NEtFOSA	AveID	1.059	1.134		2.14	2.00	7.1	30.0
Perfluorotridecanoic acid	AveID	0.7467	0.8120		2.17	2.00	8.7	30.0
Perfluorotetradecanoic acid	AveID	0.9176	1.056		2.30	2.00	15.1	30.0
Perfluorohexadecanoic acid	AveID	1.027	1.125		2.19	2.00	9.6	30.0
Perfluorooctadecanoic acid	AveID	0.4272	0.4745		2.22	2.00	11.1	30.0
13C4 PFBA	Ave	1.113	1.163		10.4	10.0	4.5	30.0
13C5 PFPeA	Ave	0.9609	0.9836		10.2	10.0	2.4	30.0
13C3 PFBS	Ave	0.7607	0.8302		10.2	9.30	9.1	30.0
M2-4:2 FTS	Ave	0.1389	0.1410		9.49	9.34	1.6	30.0
13C5 PFHxA	Ave	1.080	1.085		10.0	10.0	0.5	30.0
13C3 HFPO-DA	Ave	0.1589	0.1527		9.61	10.0	-3.9	30.0
13C3 PFHxS	Ave	0.6680	0.6969		9.87	9.46	4.3	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-226634/56 Calibration Date: 02/23/2022 08:40

Instrument ID: 30733 Calib Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 02/22/2022 16:18

Lab File ID: 22FEB22-60.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFHpA	Ave	1.203	1.279		10.6	10.0	6.3	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	1.039	1.083		10.4	10.0	4.2	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.0954	0.0966		10.1	10.0	1.2	30.0
M2-6:2 FTS	Ave	0.0574	0.0583		9.65	9.50	1.5	30.0
13C8 PFOA	Ave	1.325	1.342		10.1	10.0	1.3	30.0
13C8 PFOS	Ave	1.009	1.017		9.64	9.56	0.9	30.0
13C9 PFNA	Ave	1.679	1.780		10.6	10.0	6.0	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	1.103	1.133		10.3	10.0	2.8	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.0739	0.0756		10.2	10.0	2.3	30.0
13C6 PFDA	Ave	0.996	1.017		10.2	10.0	2.1	30.0
M2-8:2 FTS	Ave	0.0271	0.0284		10.0	9.58	4.8	30.0
13C8 FOSA	Ave	0.9410	0.9734		10.3	10.0	3.4	30.0
d3-NMeFOSAA	Ave	0.3357	0.3494		10.4	10.0	4.1	30.0
13C7 PFUnA	Ave	0.9671	0.9472		9.79	10.0	-2.1	30.0
d5-NEtFOSAA	Ave	0.2349	0.2372		10.1	10.0	1.0	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.8336	0.8392		10.1	10.0	0.7	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0412	0.0429		10.4	10.0	4.1	30.0
13C2-PFDoDA	Ave	0.7173	0.7024		9.79	10.0	-2.1	30.0
d7-N-MeFOSE-M	Ave	0.1491	0.1484		9.95	10.0	-0.5	30.0
d3-NMePFOSA	Ave	0.0959	0.0979		10.2	10.0	2.1	30.0
d9-N-EtFOSE-M	Ave	0.1704	0.1688		9.91	10.0	-0.9	30.0
d5-NEtPFOSA	Ave	0.0915	0.0951		10.4	10.0	4.0	30.0
13C2 PFTeDA	Ave	0.6058	0.5627		9.29	10.0	-7.1	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-60.d
Lims ID: CCV 8_CAL3
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2022 08:40:08 ALS Bottle#: 20004 Worklist Smp#: 56
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: CCV 8_CAL3
Misc. Info.: Plate: 3 Rack: 1 410-0050963-056
Operator ID: US19_USR_INS20260 Instrument ID: 30733
Sublist: chrom-PFAS_30733_XList_2*sub5

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 11:52:21 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1671

First Level Reviewer: kruelleh Date: 23-Feb-2022 10:32:07
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										
175.00 > 97.00	1.469	1.469	0.0	0.369	18595	1.88		94.1	198	
1 PPF Acid										
163.00 > 119.00	1.820	1.837	-0.017	0.457	151418	1.91		95.4	795	
96 PFMOAA										
179.00 > 85.00	2.929	2.942	-0.013	0.736	88654	1.83		91.5	217	
100 R-PSDA										
441.00 > 241.00	3.955	3.947	0.008	0.863	7324	2.04		102	512	
99 R-EVE										
405.00 > 217.00	3.955	3.947	0.008	0.994	25153	2.02		101	1338	
105 Hydrolyzed PSDA										
439.00 > 343.00	3.972	3.963	0.009	0.867	35736	1.98		99.0	2271	
D 3 13C4 PFBA										
217.00 > 172.00	3.980	3.972	0.008	1.000	1610552	10.4		104	90125	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.980	3.972	0.008	1.000	305831	2.01		101	4531	
* 4 13C3-PFBA										
216.00 > 172.00	3.980	3.972	0.008		692615	5.00			2276	
102 PMPA										
229.00 > 185.00	4.108	4.098	0.010	1.032	136488	1.94		97.2	2639	
5 PFPrS										
249.00 > 99.00	4.170	4.159	0.011	1.048	73067	1.98		108	5112	
103 NVHOS										
297.00 > 135.00	4.202	4.191	0.011	0.917	66853	2.03		101	4676	
6 PFECA F										
229.00 > 85.00	4.223	4.223	0.0	1.061	334018	2.31		116	20860	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 PFO2HxA										
245.00 > 85.00	4.413	4.402	0.011	1.109	93743	1.92		96.1	4939	
7 Perfluoropentanoic acid										
263.00 > 219.00	4.524	4.514	0.010	1.000	294811	2.09		104	7383	
D 8 13C5 PFPeA										
268.00 > 223.00	4.524	4.524	0.0	1.137	1362534	10.2		102	75648	
9 3:3 FTCA										
241.00 > 177.00	4.534	4.524	0.010	1.002	20871	2.29		114	1542	
D 11 13C3 PFBS										
302.00 > 80.00	4.582	4.572	0.010	1.151	1069533	10.2		109	82296	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.582	4.572	0.010	1.000	214626	1.73	Target=3.22	98.0	16318	
299.00 > 99.00	4.573	4.572	0.001	0.998	67321		3.19(1.61-4.83)		5113	
91 PEPA										
279.00 > 235.00	4.637	4.628	0.009	1.165	55592	1.88		94.0	2193	
12 PFECA A										
279.00 > 85.00	4.654	4.653	0.001	1.016	218083	1.98		99.2	17652	
13 PES										
315.00 > 135.00	4.748	4.740	0.008	1.036	698483	1.82		103	57646	
14 PFECA B										
201.00 > 85.00	4.880	4.870	0.010	1.065	270312	2.00	Target=1.44	100	3886	
295.00 > 201.00	4.880	4.870	0.010	1.065	177655		1.52(0.72-2.15)		12904	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.909	4.899	0.010	0.860	205686	9.49		102	14865	
15 4:2 FTS										
327.00 > 307.00	4.909	4.899	0.010	1.000	138573	2.02	Target=1.53	108	10144	
327.00 > 81.00	4.909	4.899	0.010	1.000	76815		1.80(0.77-2.30)		5505	
$ 18 13C2 PFHxA										
315.00 > 270.00	4.951	4.940	0.011	0.868	1336553	NC			96392	
D 19 13C5 PFHxA										
318.00 > 273.00	4.951	4.940	0.011	0.868	1694954	10.0		100	91740	
17 Perfluorohexanoic acid										
313.00 > 269.00	4.941	4.940	0.001	0.998	284472	2.00	Target=16.07	100	5040	
313.00 > 119.00	4.941	4.940	0.001	0.998	19393		14.67(8.04-24.11)		1372	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.961	4.960	0.001	1.083	220712	2.03	Target=3.46	108	16291	
349.00 > 99.00	4.961	4.960	0.001	1.083	61469		3.59(1.73-5.19)		4490	
93 PFO3OA										
311.00 > 85.00	5.000	4.999	0.001	1.256	85449	1.86		92.9	6529	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.080	5.070	0.010	0.890	238495	9.61		96.1	18081	
21 HFPO-DA										
329.00 > 285.00	5.071	5.070	0.001	0.998	95302	2.09		104	5468	
106 Hydro-PS Acid										
463.00 > 263.00	5.347	5.273	0.074	1.167	449803	2.08		104	639	
97 Hydro-EVE Acid										
427.00 > 283.00	5.284	5.284	0.0	1.328	417102	2.05		102	709	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
94 R-PSDCA										
397.00 > 217.00	5.284	5.284	0.0	1.153	534783	1.95		97.7	37381	
D 25 13C3 PFHxS										
402.00 > 80.00	5.337	5.326	0.011	0.935	1029449	9.87		104	74914	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.337	5.326	0.011	1.000	221812	1.88	Target=3.59	103	704	
399.00 > 99.00	5.337	5.326	0.011	1.000	61859		3.59(1.79-5.38)		24846	
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.337	5.326	0.011	1.000	432761	2.15	Target=3.65	107	13326	
363.00 > 169.00	5.337	5.326	0.011	1.000	107083		4.04(1.82-5.47)		7658	
D 24 13C4 PFHpA										
367.00 > 322.00	5.337	5.337	0.0	0.935	1996547	10.6		106	145191	
27 DONA										
377.00 > 251.00	5.383	5.374	0.009	1.009	490445	1.93		102	29126	
98 PFECA G										
379.00 > 185.00	5.400	5.391	0.009	1.357	495428	2.12		106	39855	
28 5:3 FTCA										
341.00 > 237.00	5.417	5.407	0.010	1.015	87235	2.17	Target=50.84	108	7076	
339.00 > 295.00	5.450	5.407	0.043	1.021	1580		55.21(25.42-76.26)		33.3	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.442	5.432	0.010	0.954	1691302	10.4		104	80780	
29 6:2 FTUCA										
357.00 > 293.00	5.433	5.432	0.001	0.998	511635	2.23		111	30490	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.459	5.449	0.010	0.957	150790	10.1		101	11992	
32 6:2 FTCA										
377.00 > 293.00	5.459	5.449	0.010	1.000	34019	2.14		107	2681	
95 PFO4DA										
377.00 > 85.00	5.512	5.502	0.010	1.385	107654	2.02		101	587	
104 PS Acid										
443.00 > 147.00	5.554	5.544	0.010	1.212	133895	1.95		97.4	10935	
90 EVE Acid										
407.00 > 263.00	5.570	5.569	0.001	1.399	325745	2.09		105	25905	
33 PFECHS										
461.00 > 381.00	5.640	5.629	0.011	1.057	359001	1.86	Target=1.94	100	26699	
461.00 > 99.00	5.640	5.629	0.011	1.057	188917		1.90(0.97-2.91)		14043	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.688	5.677	0.011	0.997	86448	9.65		102	6270	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.688	5.677	0.011	1.066	222695	2.02	Target=3.50	106	16631	
449.00 > 99.00	5.688	5.677	0.011	1.066	59853		3.72(1.75-5.24)		4417	
34 6:2 FTS										
427.00 > 407.00	5.688	5.677	0.011	1.000	82492	2.01	Target=1.31	106	6084	
427.00 > 81.00	5.688	5.677	0.011	1.000	61986		1.33(0.65-1.96)		4538	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.707	5.696	0.011	1.000	350826	2.19	Target=2.48	109	30651	
413.00 > 169.00	5.697	5.696	0.001	0.998	131283		2.67(1.24-3.72)		328	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 37 13C8 PFOA										
421.00 > 376.00	5.707	5.696	0.011	1.000	2095327	10.1		101	152816	
$ 39 13C4 PFOA										
417.00 > 372.00	5.707	5.696	0.011	1.000	2010513	NC			147526	
* 38 13C2 PFOA										
415.00 > 370.00	5.707	5.696	0.011		780735	5.00			43186	
101 TAF										
443.00 > 85.00	5.946	5.945	0.001	1.494	97266	2.05		102	7662	
D 41 13C8 PFOS										
507.00 > 80.00	6.025	6.015	0.010	1.000	938898	9.64		101	30454	
43 Perfluorooctanesulfonic acid										M
499.00 > 80.00	6.025	6.015	0.010	1.000	203179	1.94	Target=4.38	105	409	M
499.00 > 99.00	6.025	6.015	0.010	1.000	42753		4.75(2.19-6.57)		111	
* 42 13C4 PFOS										
503.00 > 80.00	6.025	6.015	0.010		461663	4.78			34817	
D 45 13C9 PFNA										
472.00 > 427.00	6.044	6.033	0.011	1.003	1717886	10.6		106	129243	
44 Perfluorononanoic acid										
463.00 > 419.00	6.044	6.033	0.011	1.000	334388	2.10	Target=4.84	105	12585	
463.00 > 169.00	6.034	6.033	0.001	0.998	72254		4.63(2.42-7.25)		5520	
46 7:3 FTCA										
441.00 > 337.00	6.148	6.139	0.009	1.126	104047	2.09		105	8075	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.157	6.148	0.008	0.970	2227237	10.3		103	133573	
47 8:2 FTUCA										
457.00 > 393.00	6.148	6.148	0.0	0.999	492144	2.07		104	38839	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.172	6.164	0.008	0.973	148570	10.2		102	11999	
49 8:2 FTCA										
477.00 > 393.00	6.164	6.164	0.0	0.999	28988	2.08		104	2369	
51 9ClFOS										
531.00 > 351.00	6.195	6.187	0.008	1.028	357678	2.00		108	22182	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.316	6.316	0.0	1.048	218095	2.22	Target=4.28	116	16188	
549.00 > 99.00	6.316	6.316	0.0	1.048	48972		4.45(2.14-6.42)		3715	
D 54 13C6 PFDA										
519.00 > 474.00	6.344	6.344	0.0	1.000	1997958	10.2		102	143119	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.344	6.344	0.0	1.000	411151	2.10	Target=10.44	105	15017	
513.00 > 169.00	6.344	6.344	0.0	1.000	36162		11.37(5.22-15.66)		2607	
* 55 13C2 PFDA										
515.00 > 470.00	6.344	6.344	0.0		982647	5.00			70162	
56 8:2 FTS										
527.00 > 507.00	6.344	6.344	0.0	0.998	83756	1.94	Target=1.54	101	6060	
527.00 > 81.00	6.344	6.344	0.0	0.998	55703		1.50(0.77-2.31)		4083	
D 57 M2-8:2 FTS										
529.00 > 81.00	6.355	6.354	0.001	1.002	53531	10.0		105	3777	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 59 13C8 FOSA										
506.00 > 78.00	6.429	6.419	0.010	1.013	1912998	10.3		103	100433	
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.429	6.419	0.010	1.000	390808	2.03		102	26913	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.491	6.491	0.0	1.023	686612	10.4		104	35044	
60 NMeFOSAA										
570.00 > 419.00	6.491	6.491	0.0	1.000	111452	1.97	Target=1.64	98.4	36.2	
570.00 > 483.00	6.491	6.491	0.0	1.000	63624		1.75(0.82-2.46)		166	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.591	6.580	0.011	1.094	210120	2.06	Target=4.07	107	13586	
599.00 > 99.00	6.580	6.580	0.0	1.092	58661		3.58(2.03-6.10)		3774	
D 65 13C7 PFUnA										
570.00 > 525.00	6.626	6.615	0.011	1.044	1861579	9.79		97.9	122612	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.615	6.615	0.0	0.998	363156	2.21	Target=8.63	110	11801	
563.00 > 169.00	6.615	6.615	0.0	0.998	42701		8.50(4.31-12.94)		2824	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.626	6.615	0.011	1.161	1652323	NC			65151	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.638	6.626	0.012	1.046	466251	10.1		101	30737	
67 NEtFOSAA										
584.00 > 419.00	6.638	6.638	0.0	1.000	99237	2.39	Target=1.31	119	186	
584.00 > 526.00	6.638	6.638	0.0	1.000	58609		1.69(0.66-1.97)		124	
68 10:2 FTUCA										
557.00 > 493.00	6.725	6.713	0.012	1.000	363787	2.16		108	23457	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.725	6.725	0.0	1.060	1649251	10.1		101	63692	
69 11ClFOS										
631.00 > 451.00	6.725	6.725	0.0	1.116	273661	2.09		112	17758	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.737	6.737	0.0	1.062	84372	10.4		104	5394	
71 10:2 FTCA										
577.00 > 493.00	6.737	6.737	0.0	1.000	17384	2.16		108	1105	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.860	6.850	0.010	1.000	281417	2.00	Target=5.13	100	14824	
613.00 > 169.00	6.850	6.850	0.0	0.999	53070		5.30(2.56-7.69)		3803	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.860	6.850	0.010	1.081	1380464	9.79		97.9	59867	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.870	6.860	0.010	1.083	291575	9.95		99.5	12674	
77 N-MeFOSE-M										
616.00 > 59.00	6.870	6.870	0.0	1.000	65674	2.11		105	3573	
75 10:2 FTS										
627.00 > 607.00	6.870	6.870	0.0	1.081	56010	1.96	Target=0.83	101	4018	
627.00 > 81.00	6.870	6.870	0.0	1.081	64336		0.87(0.42-1.25)		4729	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 79 d3-NMePFOSA										
515.00 > 169.00	6.890	6.880	0.010	1.086	192480	10.2		102	4674	
78 NMeFOSA										
512.00 > 169.00	6.890	6.880	0.010	1.000	41736	1.93		96.6	2963	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.024	7.013	0.011	1.107	331791	9.91		99.1	11969	
82 N-EtFOSE-M										
630.00 > 59.00	7.035	7.024	0.011	1.002	72313	2.09		105	3871	
80 PFDoS										
699.00 > 80.00	7.035	7.024	0.011	1.168	195014	2.08		107	13857	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.045	7.035	0.010	1.111	186947	10.4		104	10070	
84 N-EtFOSA-M										
526.00 > 169.00	7.045	7.045	0.0	1.000	42381	2.14		107	3025	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.056	7.056	0.0	1.029	224181	2.17	Target=4.34	109	11971	
663.00 > 169.00	7.056	7.056	0.0	1.029	48405		4.63(2.17-6.51)		3513	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.235	7.226	0.009	1.000	233583	2.30	Target=5.08	115	9866	
713.00 > 169.00	7.235	7.226	0.009	1.000	42500		5.50(2.54-7.61)		3001	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.235	7.234	0.001	1.140	1105793	9.29		92.9	57823	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.542	7.534	0.008	1.042	248727	2.19	Target=9.01	110	15919	
813.00 > 169.00	7.534	7.534	0.0	1.041	28460		8.74(4.50-13.51)		2396	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.771	7.770	0.001	1.074	104939	2.22	Target=7.79	111	11743	
913.00 > 169.00	7.765	7.770	-0.005	1.073	13878		7.56(3.89-11.68)		1536	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD3_00015 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 11:52:27 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-60.d

Injection Date: 23-Feb-2022 08:40:08 Instrument ID: 30733

Lims ID: CCV 8_CAL3

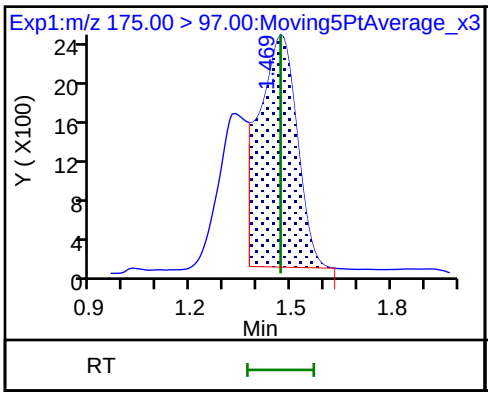
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20004 Worklist Smp#: 56

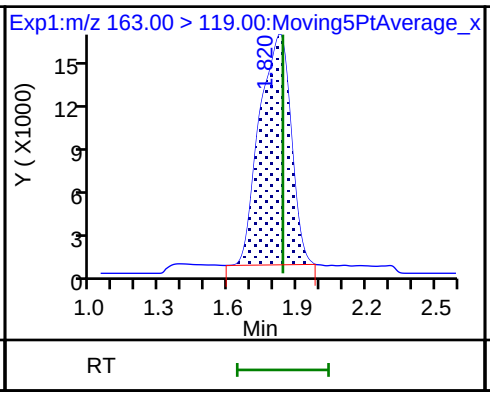
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

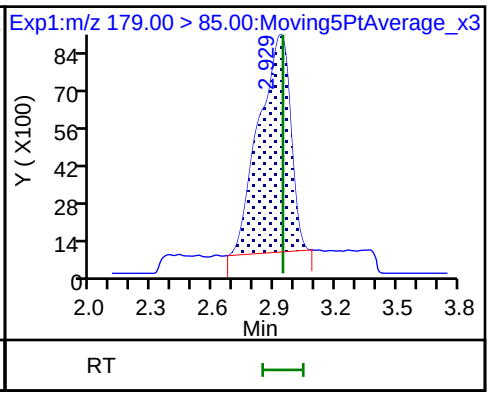
107 MTP



1 PPF Acid



96 PFMOAA



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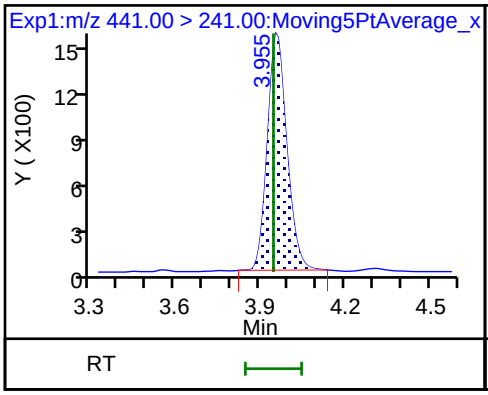
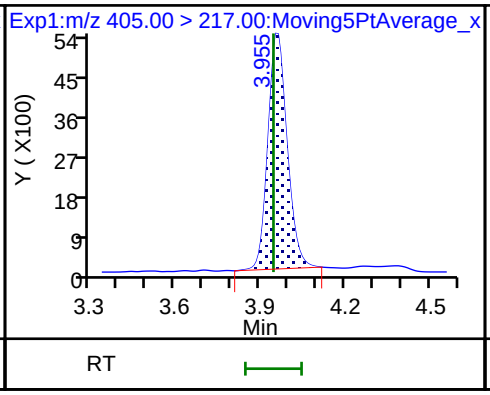
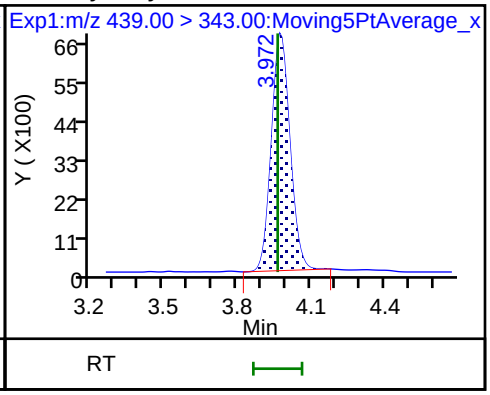


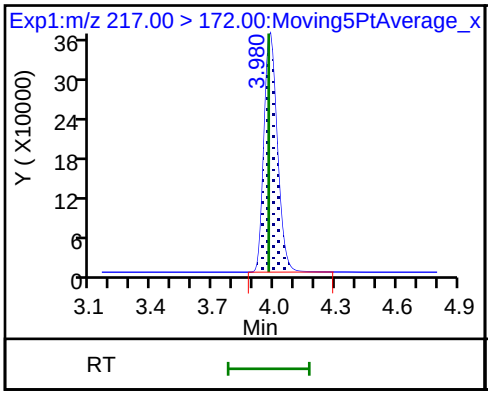
99 R-EVE



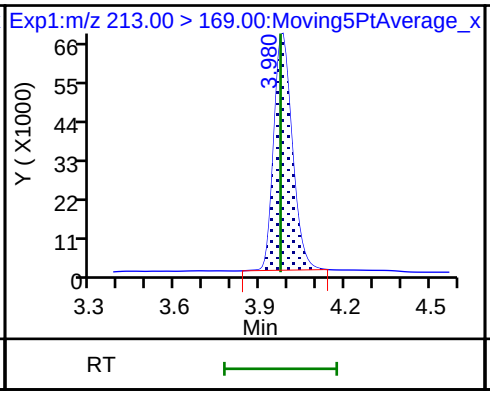
105 Hydrolyzed PSDA



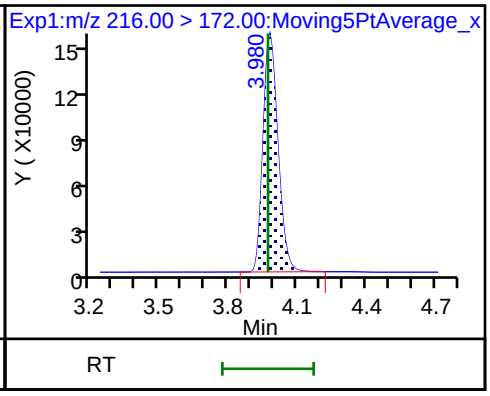
D 3 13C4 PFBA



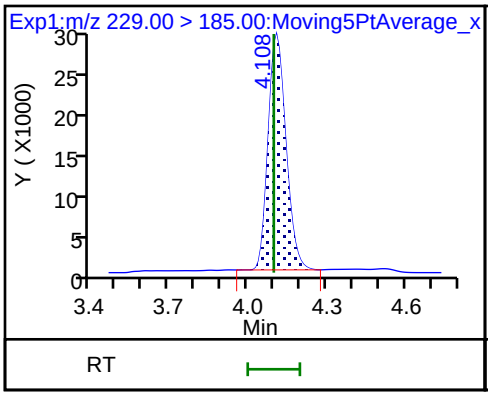
2 Perfluorobutanoic acid



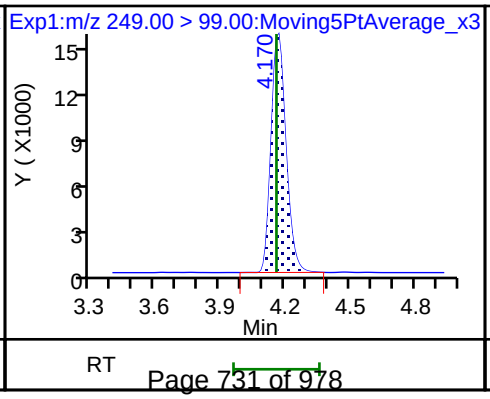
* 4 13C3-PFBA



102 PMPA



5 PFPrS



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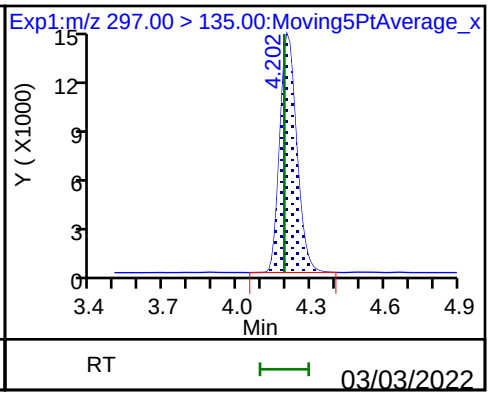
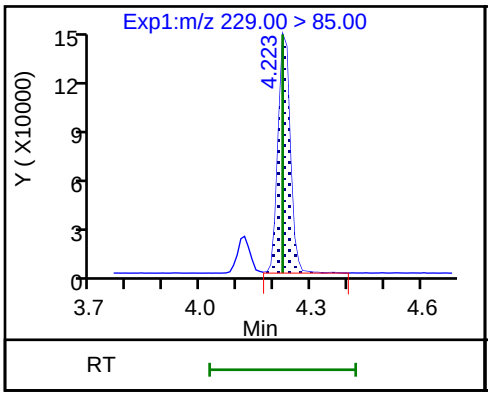
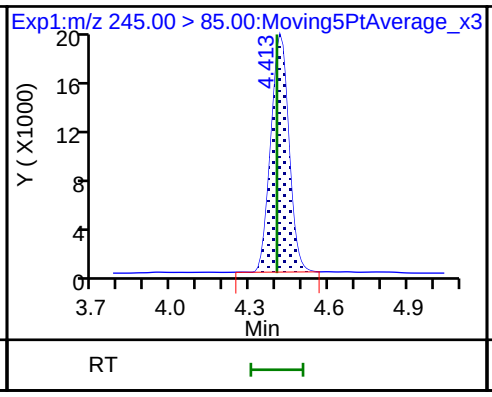


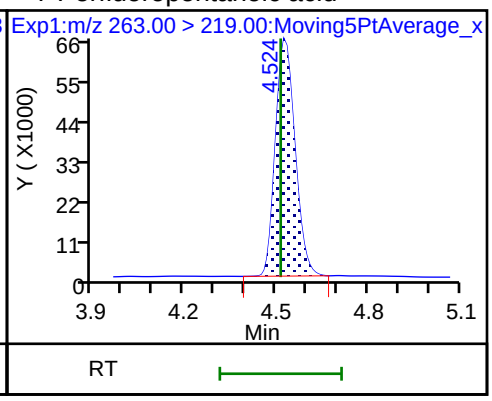
6 PFECA F



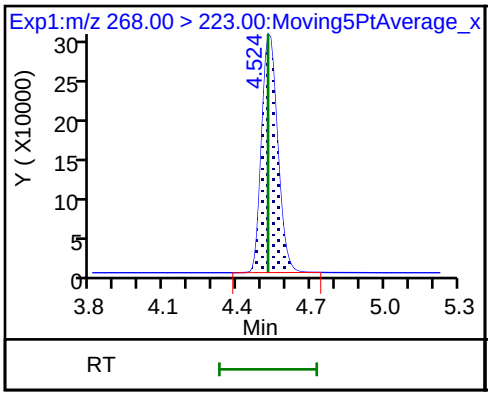
92 PFO2HxA



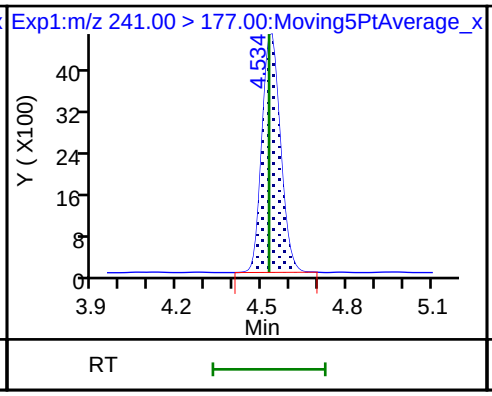
7 Perfluoropentanoic acid



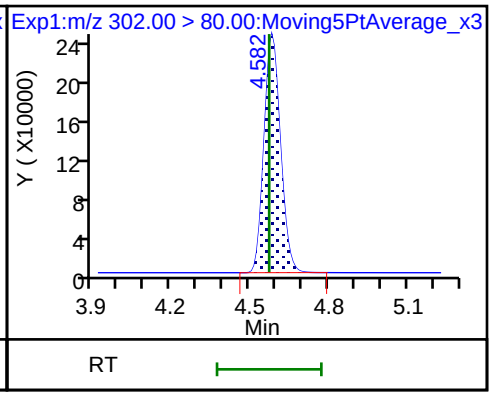
D 8 13C5 PFPeA



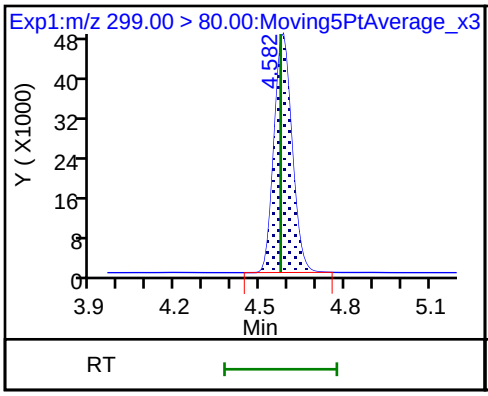
9 3:3 FTCA



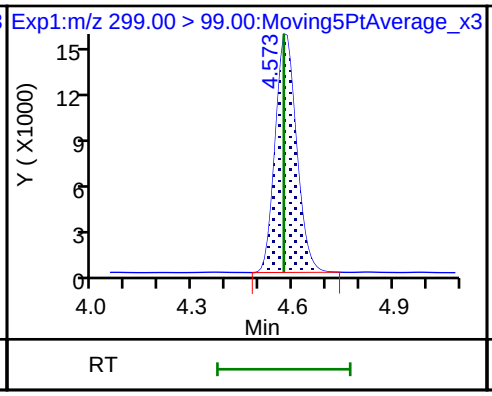
D 11 13C3 PFBS



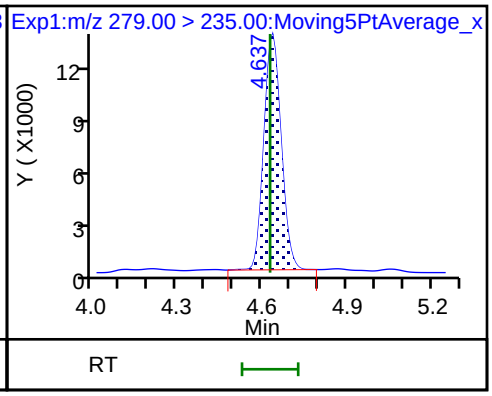
10 Perfluorobutanesulfonic acid



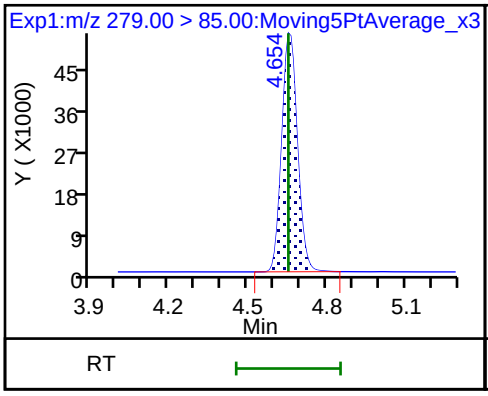
10 Perfluorobutanesulfonic acid



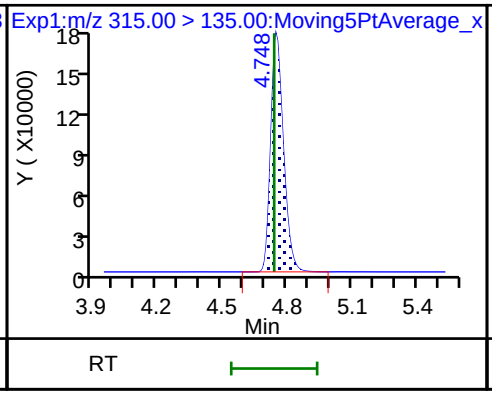
91 PEPA



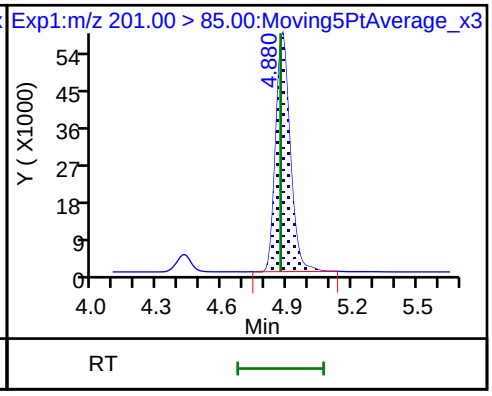
12 PFECA A



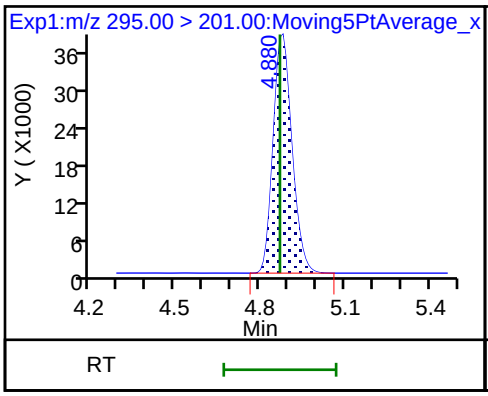
13 PES



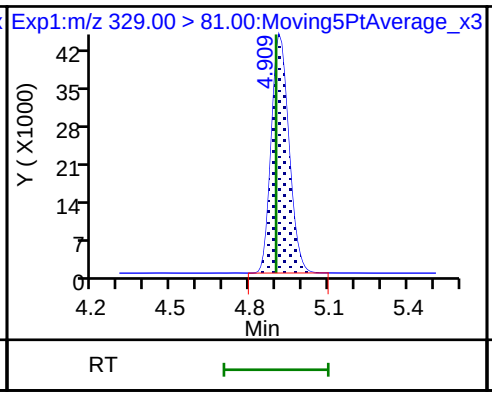
14 PFECA B



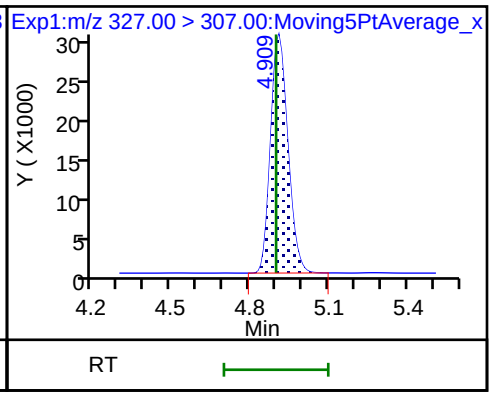
14 PFECA B



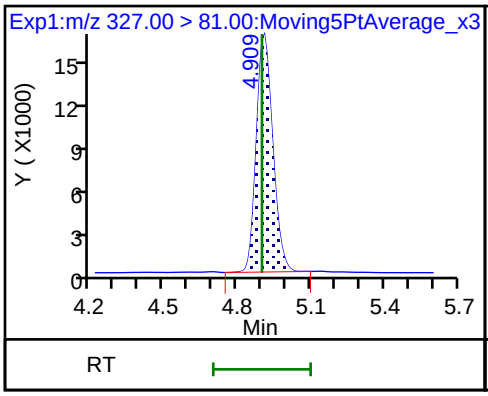
D 16 M2-4:2 FTS



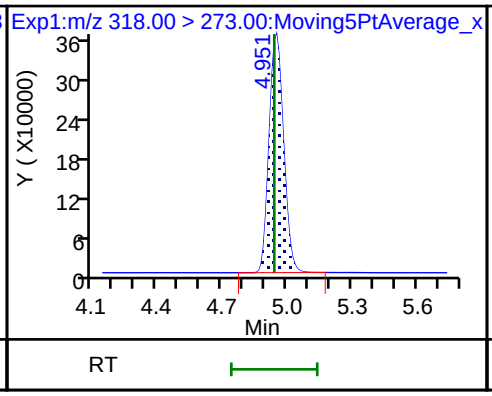
15 4:2 FTS



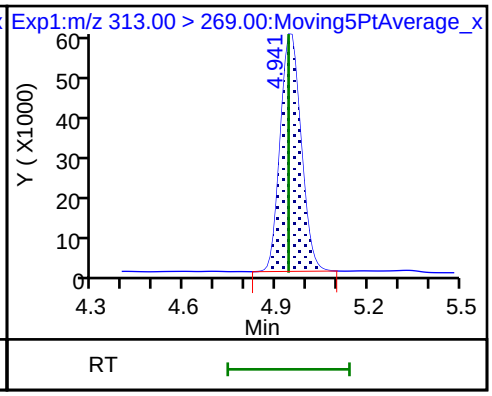
15 4:2 FTS



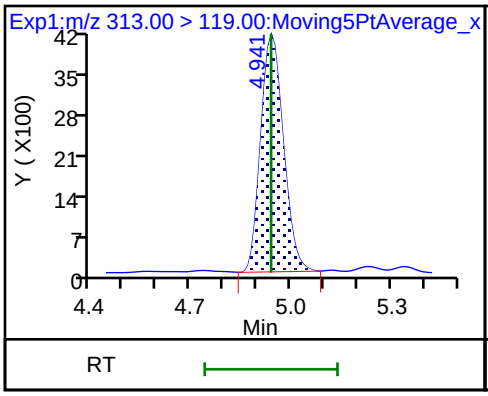
D 19 13C5 PFHxA



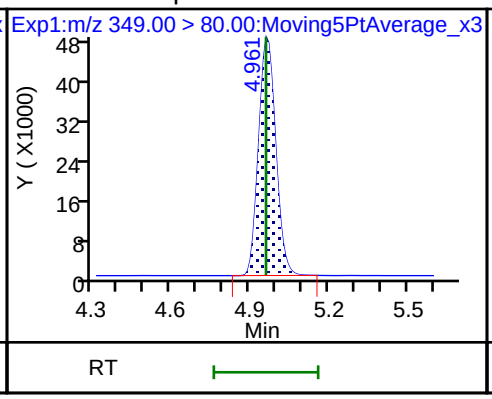
17 Perfluorohexanoic acid



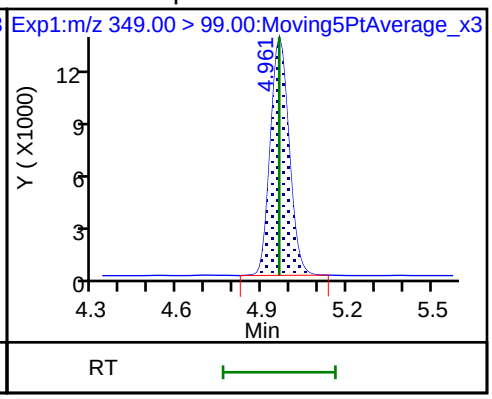
17 Perfluorohexanoic acid



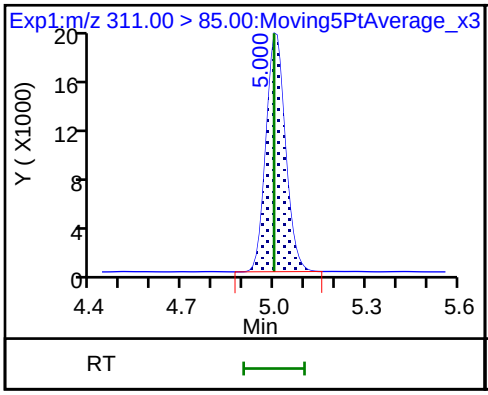
20 Perfluoropentanesulfonic acid



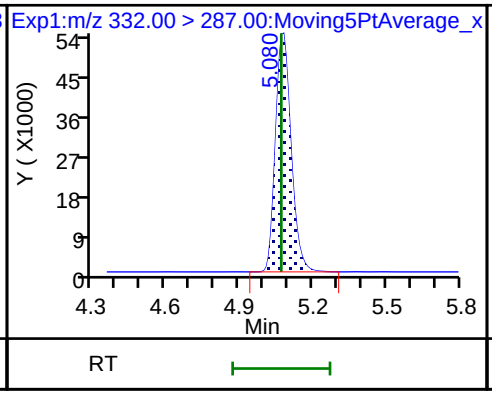
20 Perfluoropentanesulfonic acid



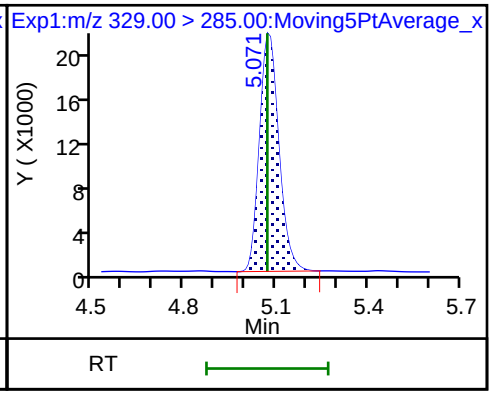
93 PFO3OA



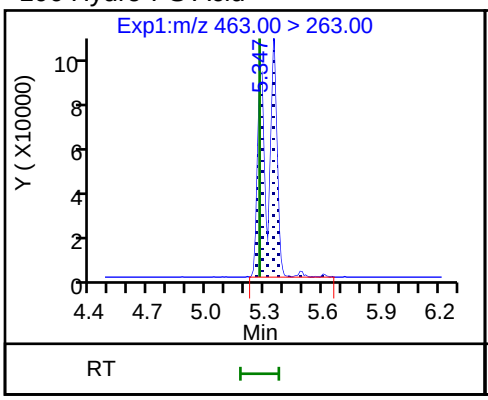
D 22 13C3 HFPO-DA



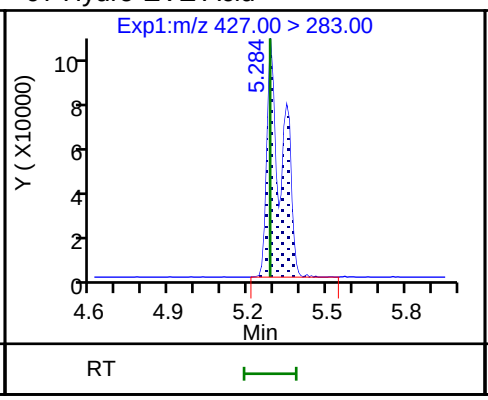
21 HFPO-DA



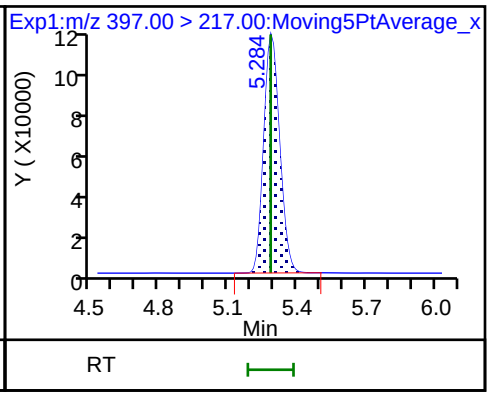
106 Hydro-PS Acid



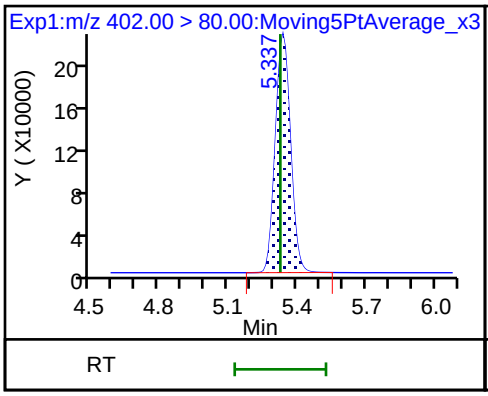
97 Hydro-EVE Acid



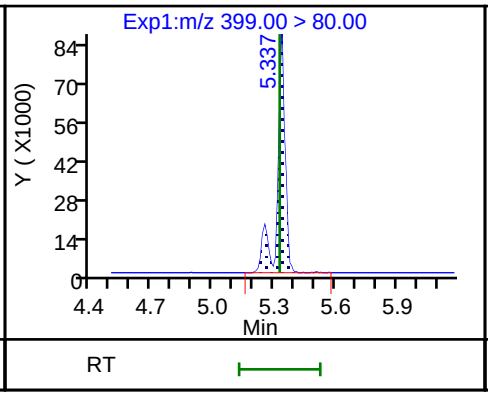
94 R-PSDCA



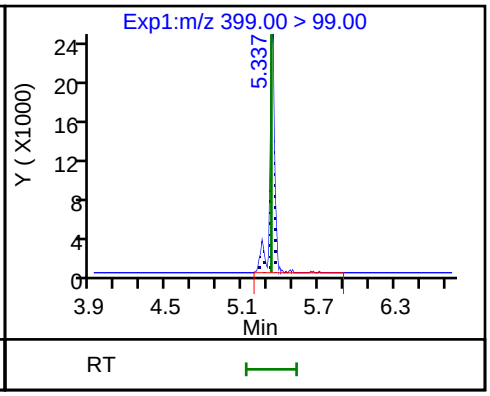
D 25 13C3 PFHxS



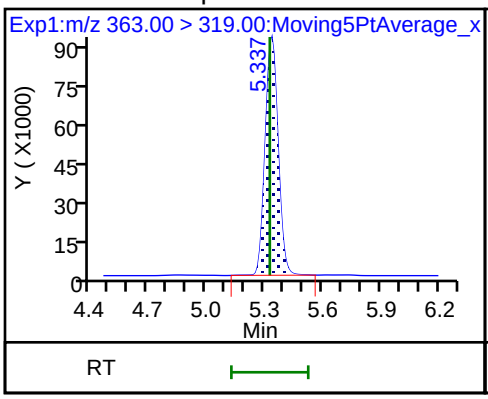
26 Perfluorohexanesulfonic acid



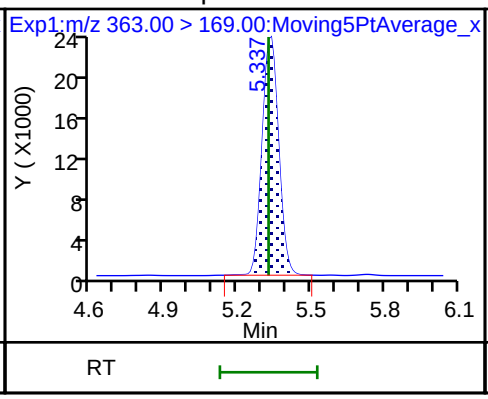
26 Perfluorohexanesulfonic acid



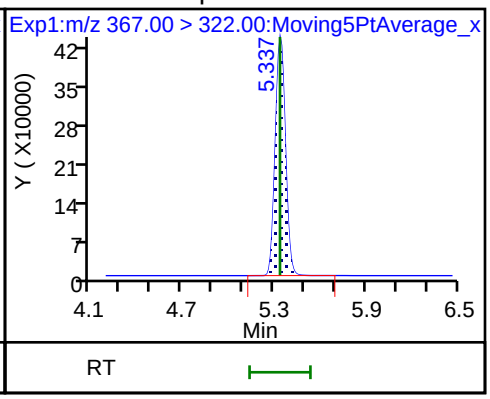
23 Perfluoroheptanoic acid



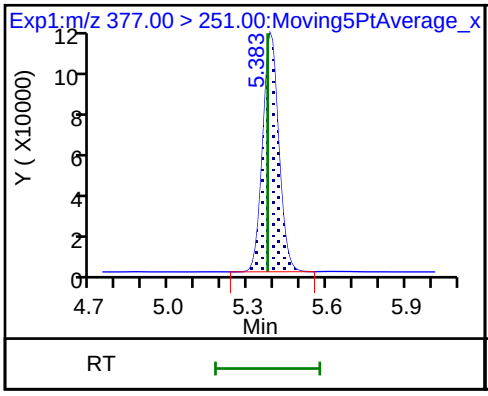
23 Perfluoroheptanoic acid



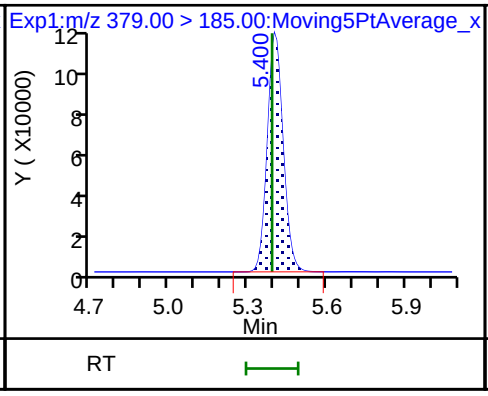
D 24 13C4 PFHpA



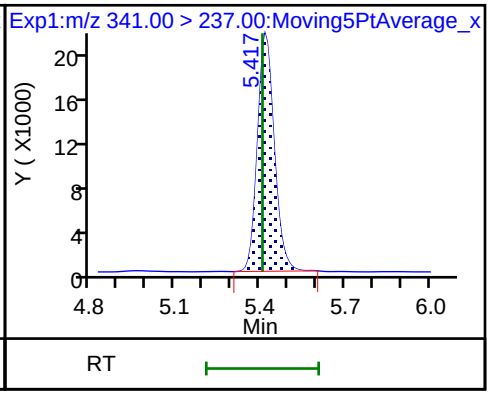
27 DONA



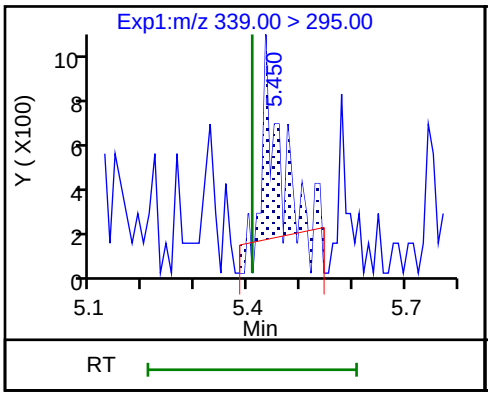
98 PFECA G



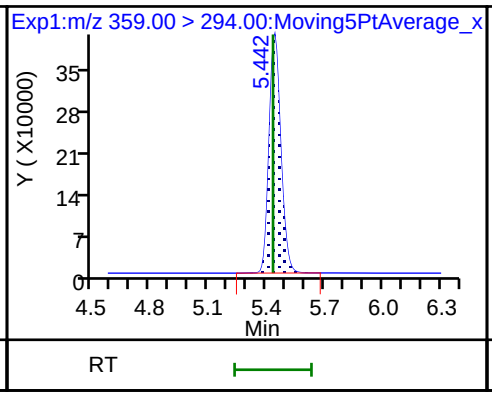
28 5:3 FTCA



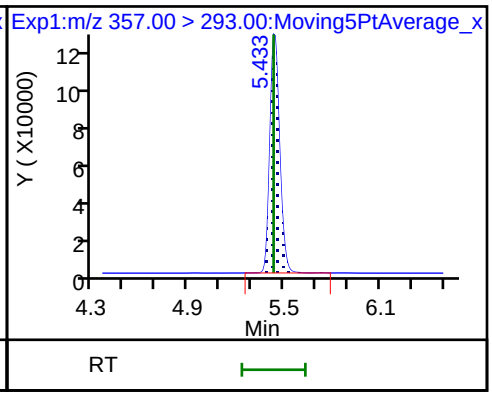
28 5:3 FTCA



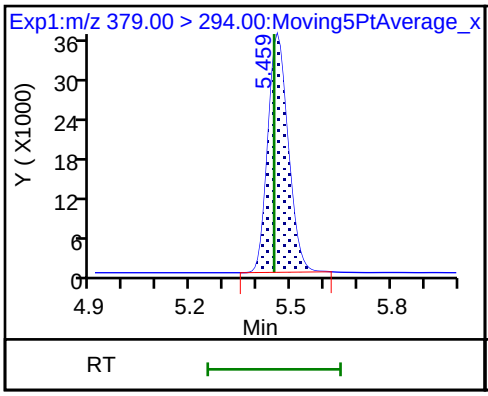
D 30 13C-6:2 FTUCA



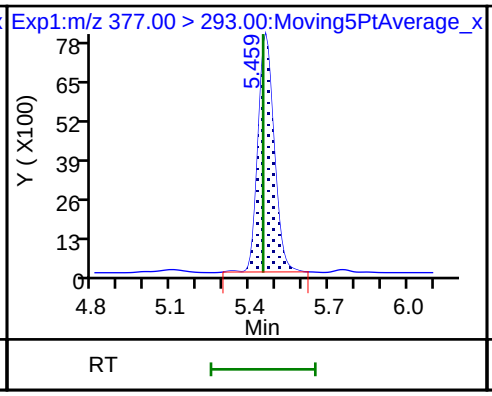
29 6:2 FTUCA



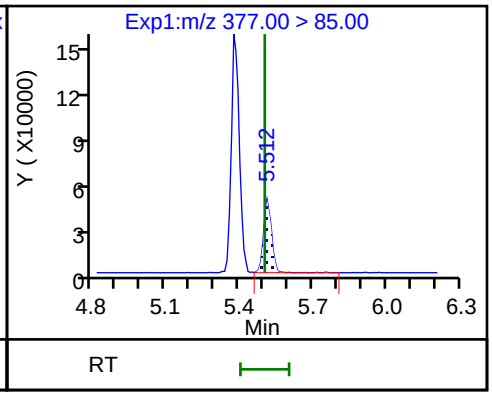
D 31 13C-6:2 FTCA



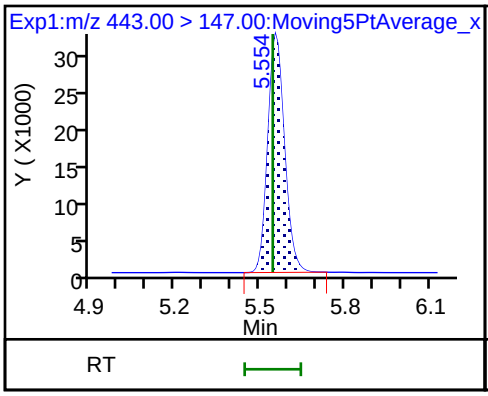
32 6:2 FTCA



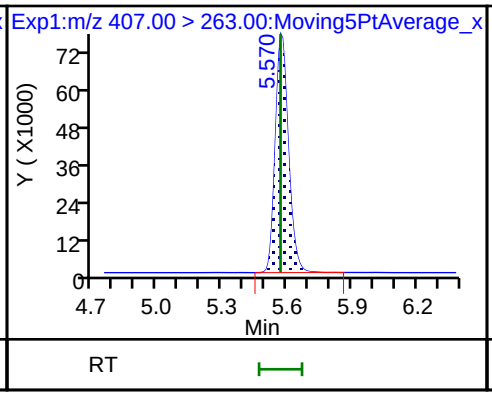
95 PFO4DA



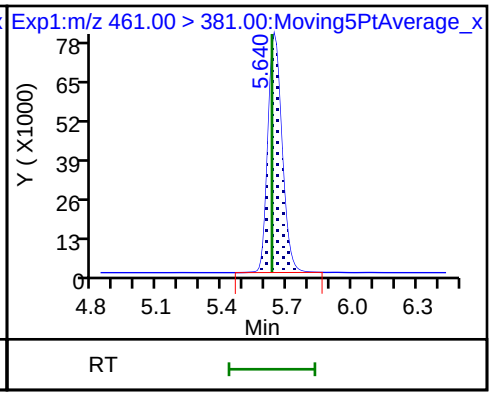
104 PS Acid



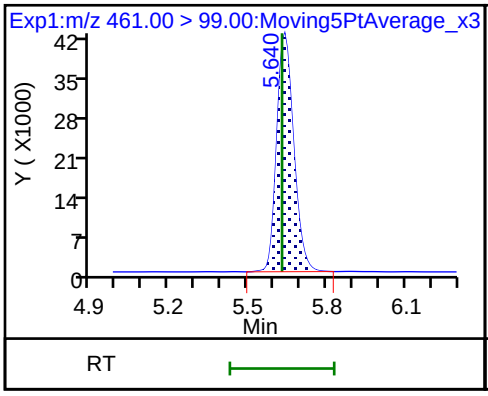
90 EVE Acid



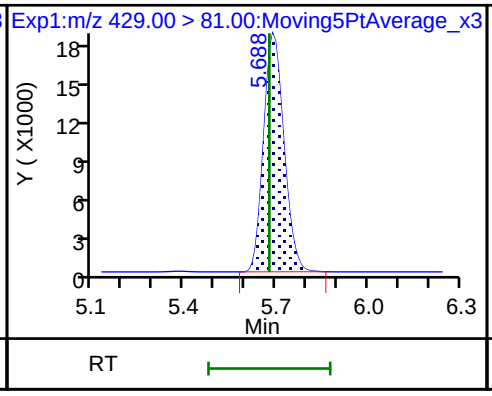
33 PFECHS



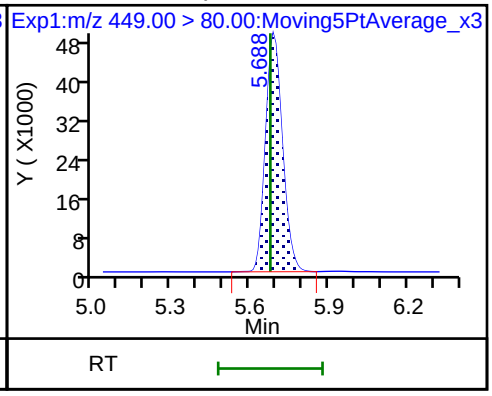
33 PFECHS



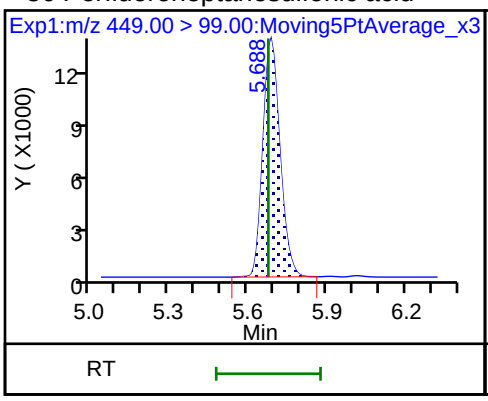
D 35 M2-6:2 FTS



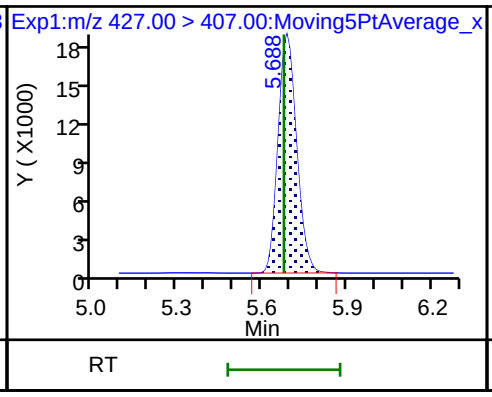
36 Perfluoroheptanesulfonic acid



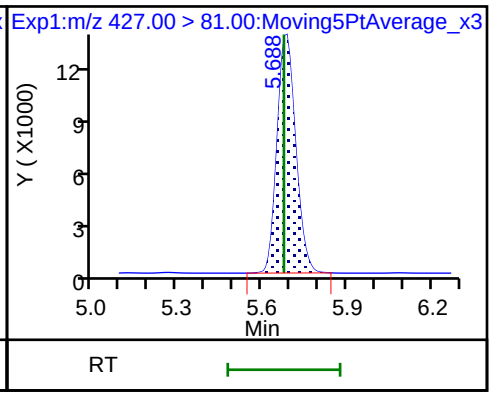
36 Perfluoroheptanesulfonic acid



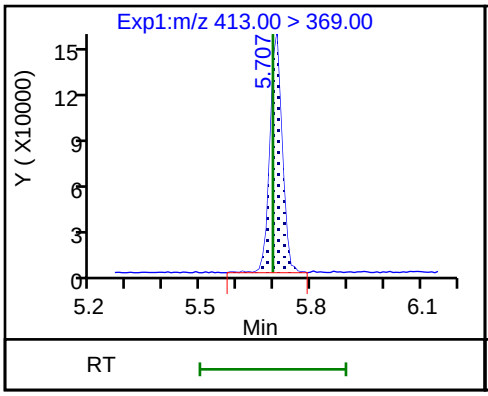
34 6:2 FTS



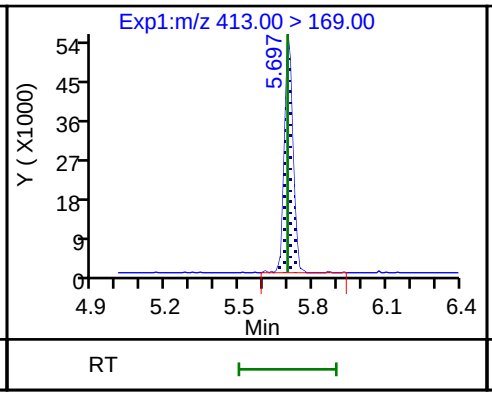
34 6:2 FTS



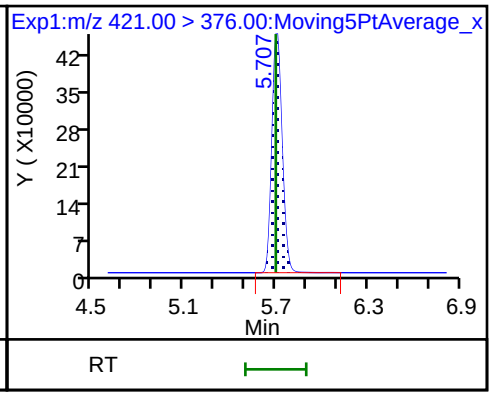
40 Perfluorooctanoic acid



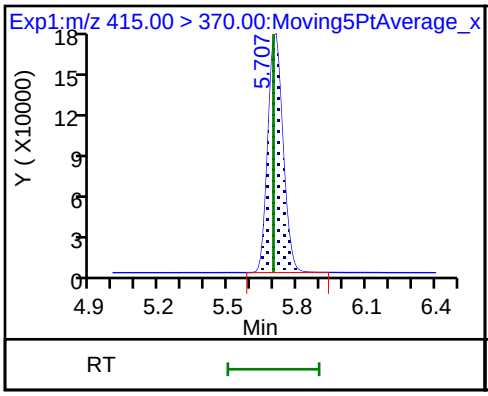
40 Perfluorooctanoic acid



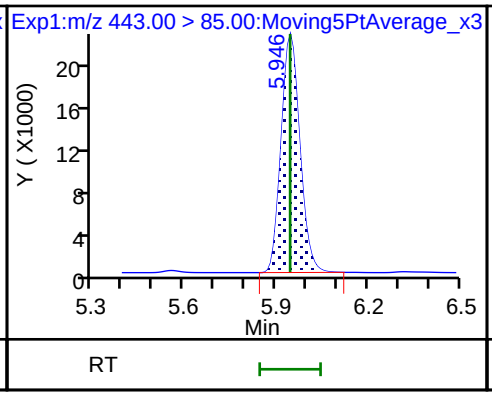
D 37 13C8 PFOA



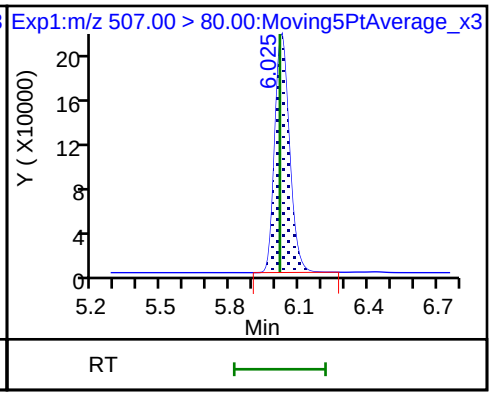
* 38 13C2 PFOA



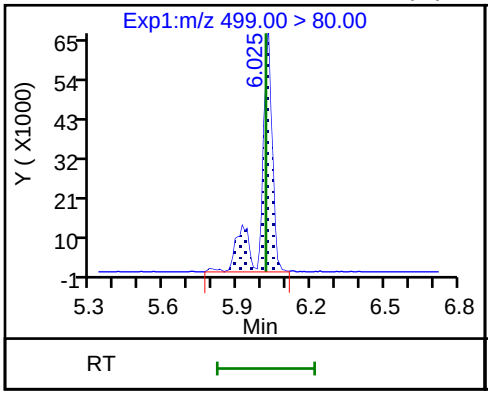
101 TAF



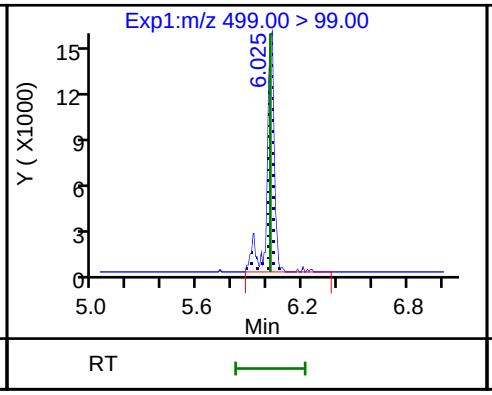
D 41 13C8 PFOS



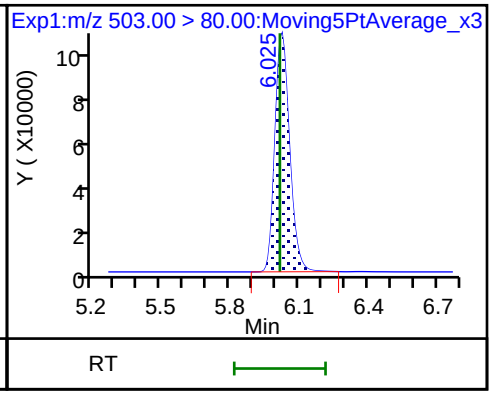
43 Perfluorooctanesulfonic acid (M)



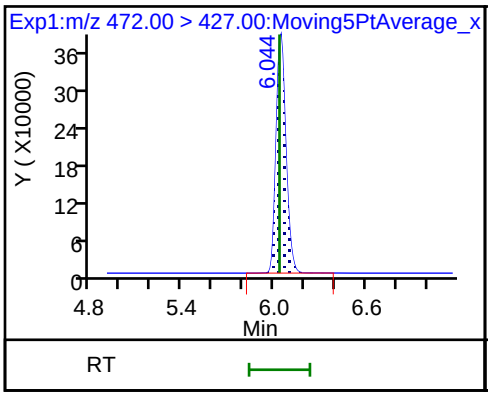
43 Perfluorooctanesulfonic acid



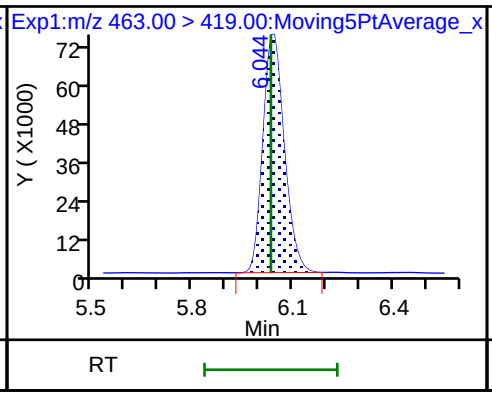
* 42 13C4 PFOS



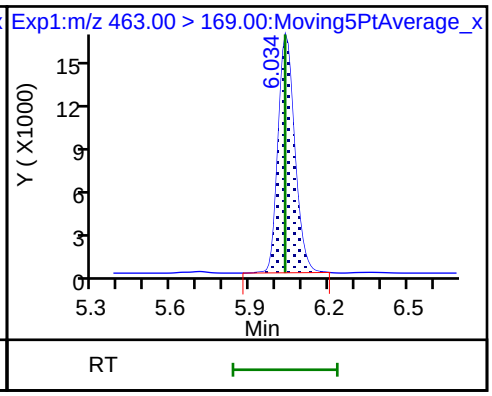
D 45 13C9 PFNA



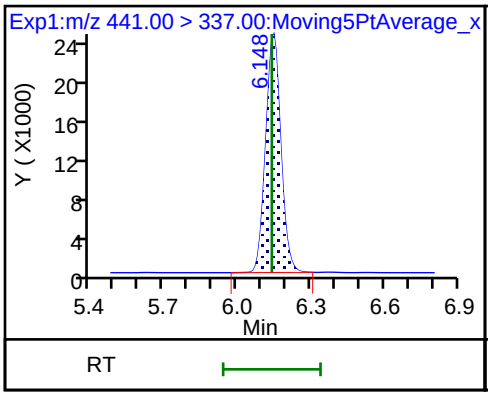
44 Perfluorononanoic acid



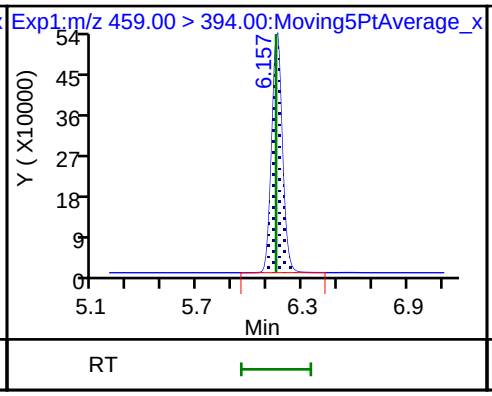
44 Perfluorononanoic acid



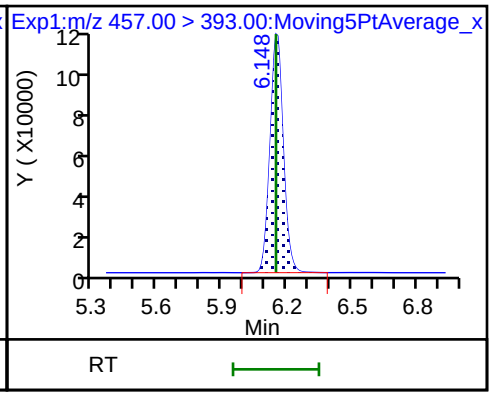
46 7:3 FTCA



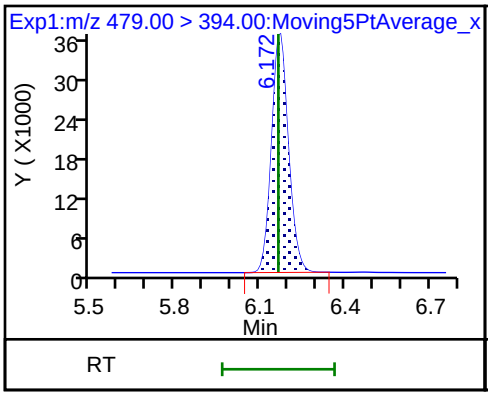
D 48 13C-8:2 FTUCA



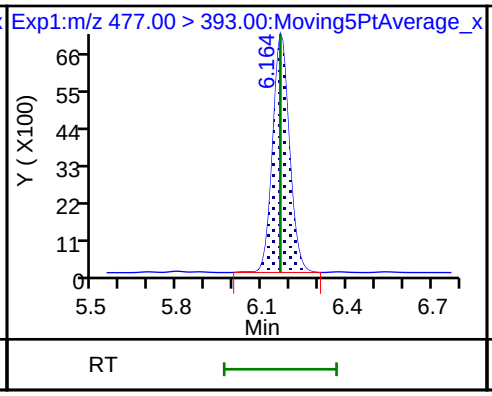
47 8:2 FTUCA



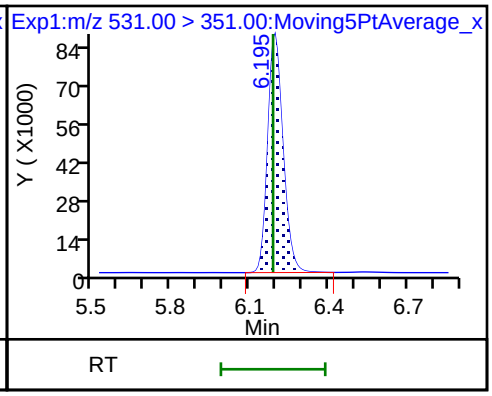
D 50 13C-8:2 FTCA



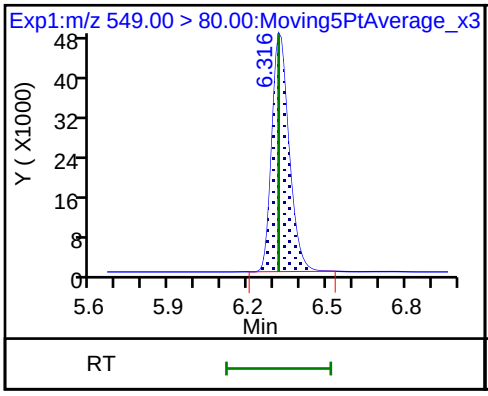
49 8:2 FTCA



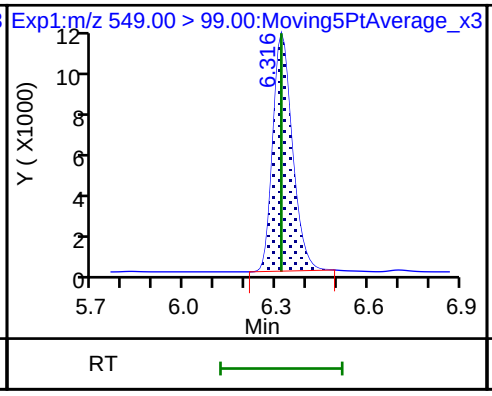
51 9ClFOS



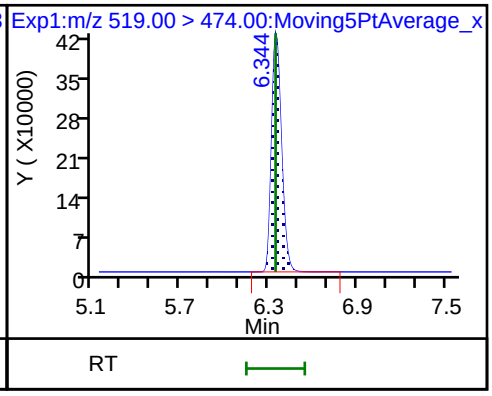
52 Perfluorononanesulfonic acid



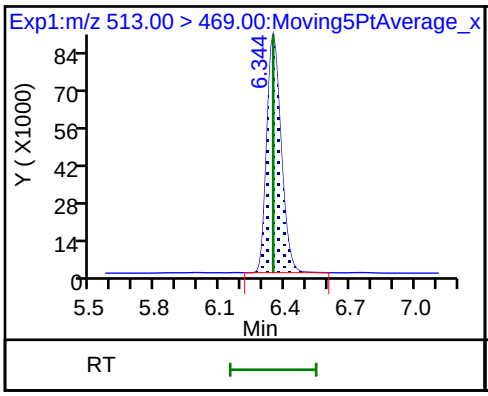
52 Perfluorononanesulfonic acid



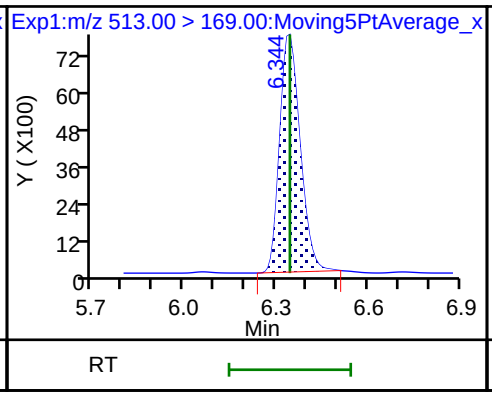
D 54 13C6 PFDA



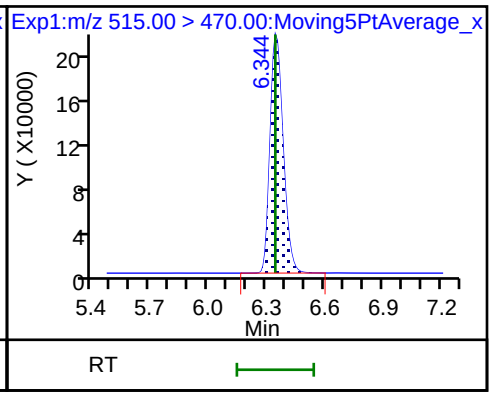
53 Perfluorodecanoic acid



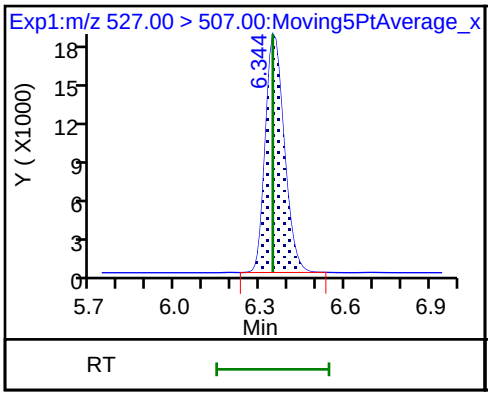
53 Perfluorodecanoic acid



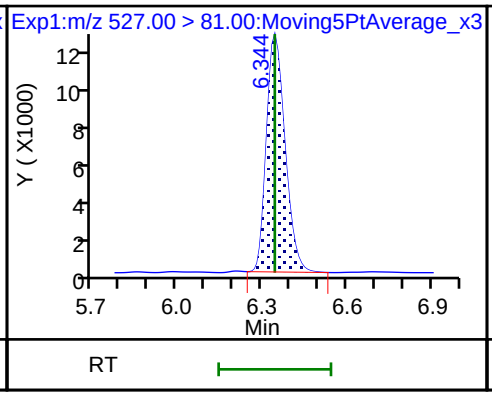
* 55 13C2 PFDA



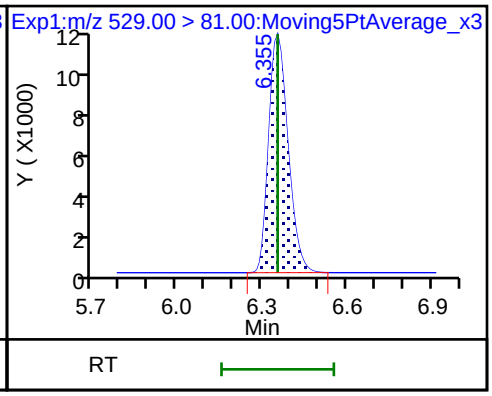
56 8:2 FTS



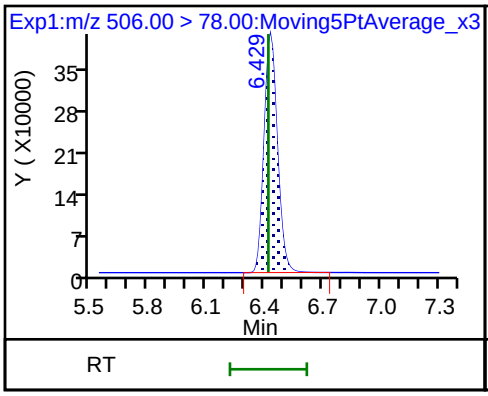
56 8:2 FTS



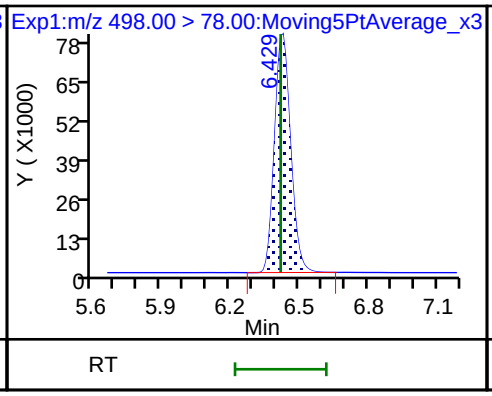
D 57 M2-8:2 FTS



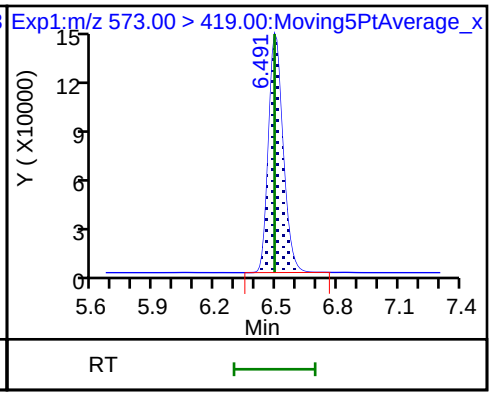
D 59 13C8 FOSA



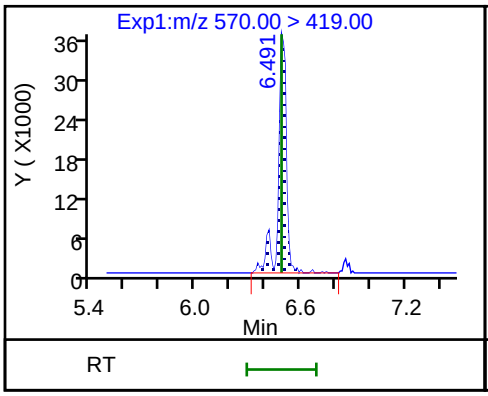
58 Perfluorooctanesulfonamide



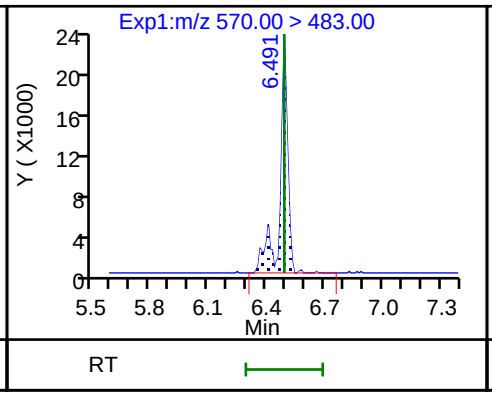
D 61 d3-NMeFOSAA



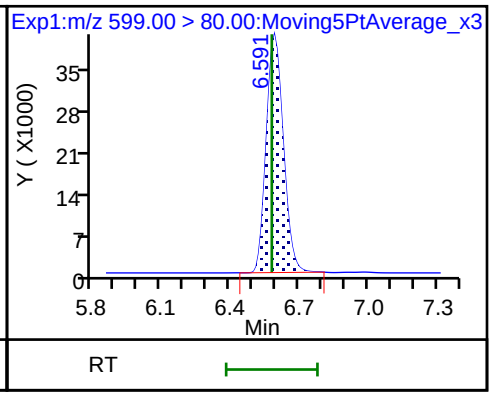
60 NMeFOSAA



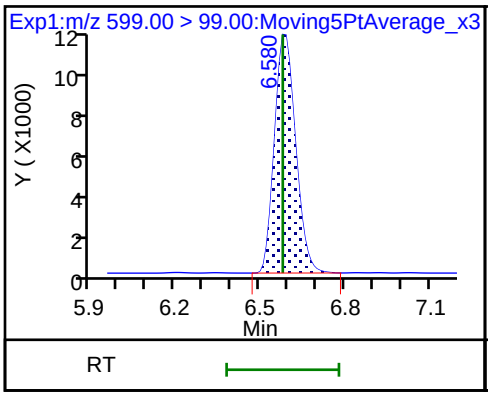
60 NMeFOSAA



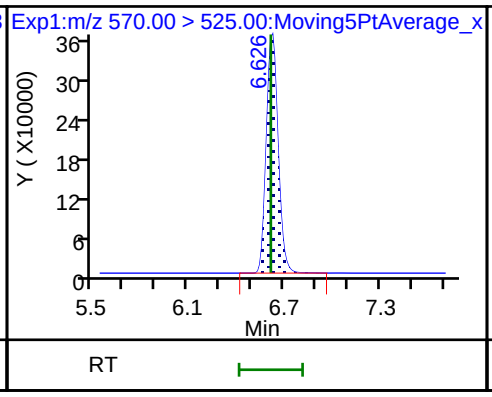
62 Perfluorodecanesulfonic acid



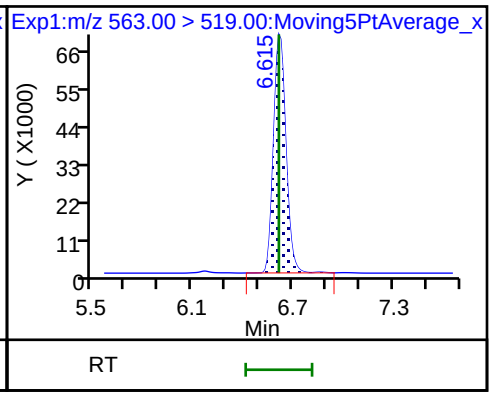
62 Perfluorodecanesulfonic acid



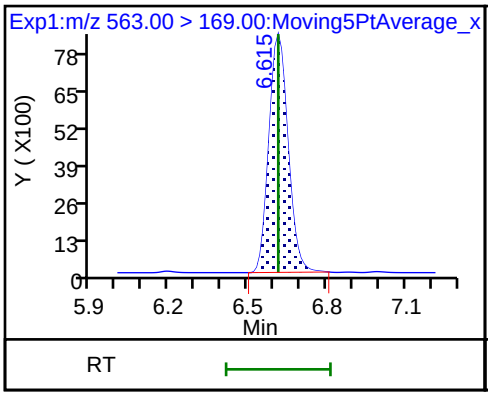
D 65 13C7 PFUnA



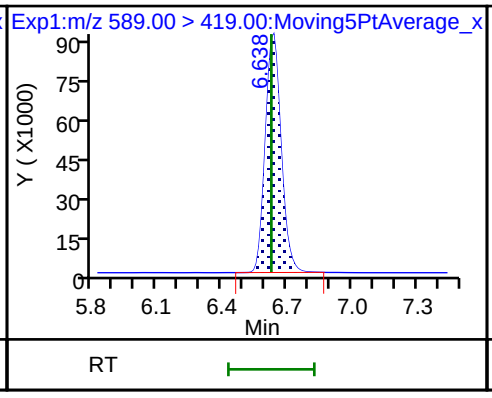
63 Perfluoroundecanoic acid



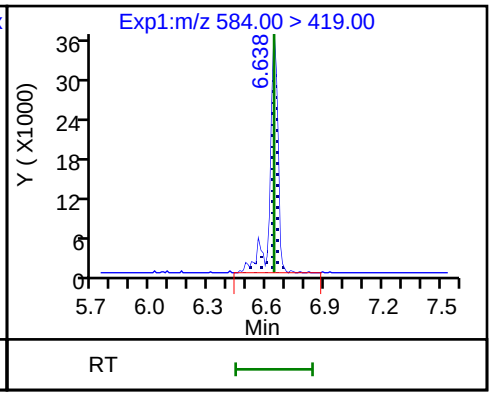
63 Perfluoroundecanoic acid



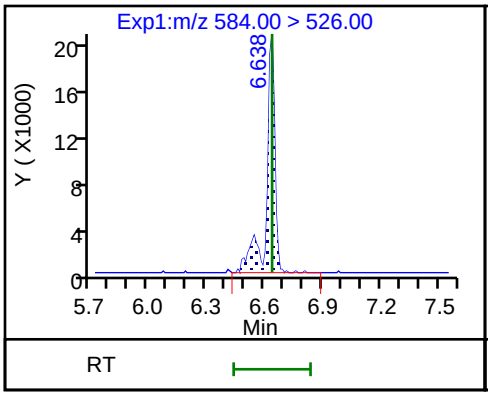
D 66 d5-NEtFOSAA



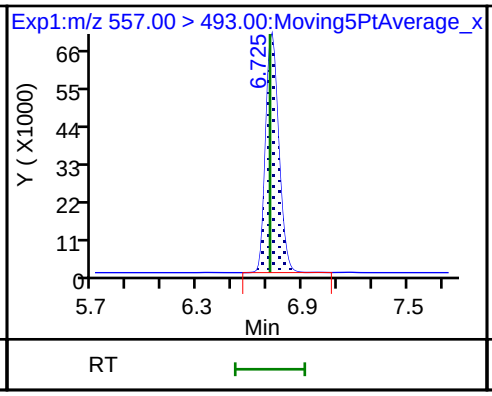
67 NEtFOSAA



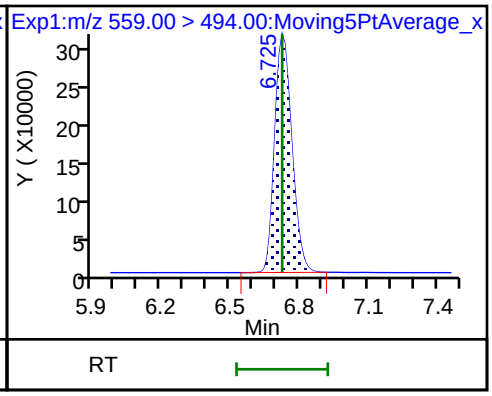
67 NEtFOSAA



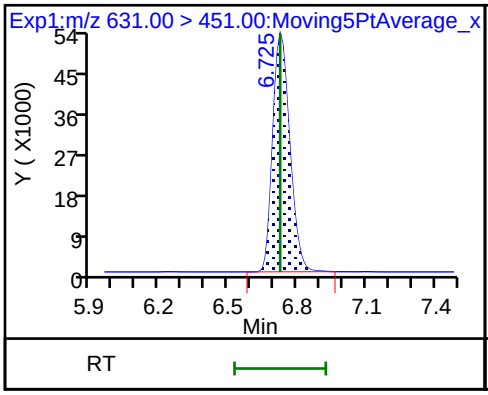
68 10:2 FTUCA



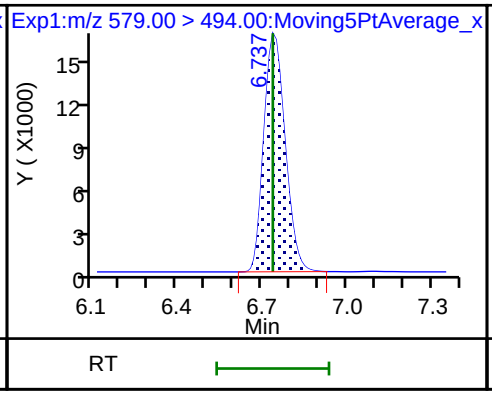
D 70 13C-10:2 FTUCA



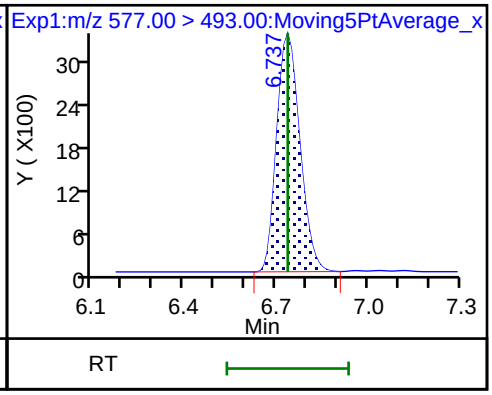
69 11ClFOS



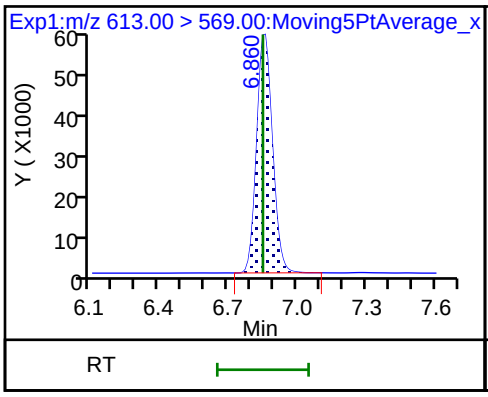
D 72 13C-10:2 FTCA



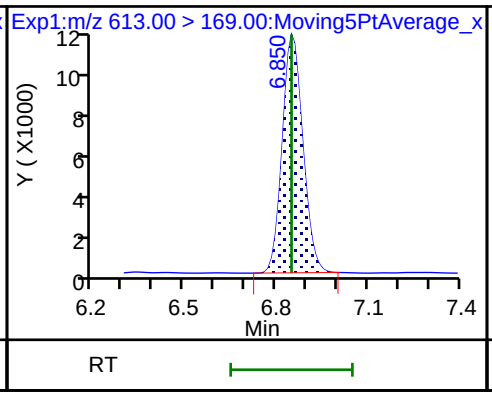
71 10:2 FTCA



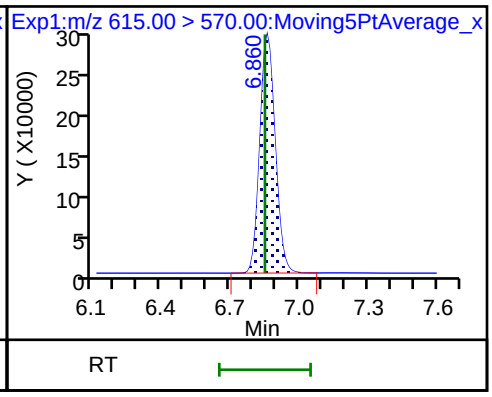
73 Perfluorododecanoic acid



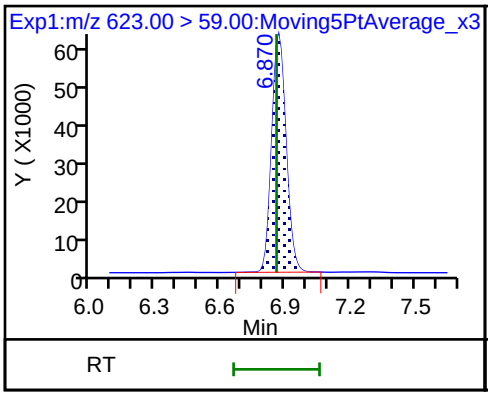
73 Perfluorododecanoic acid



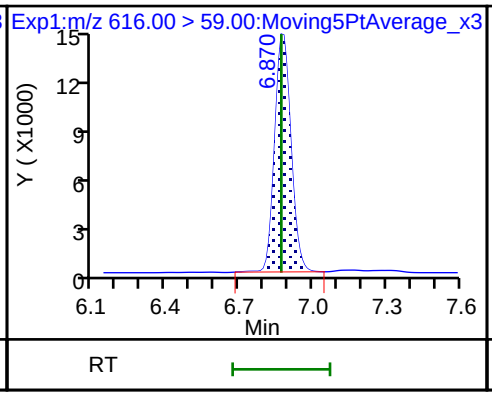
D 74 13C2-PFDoDA



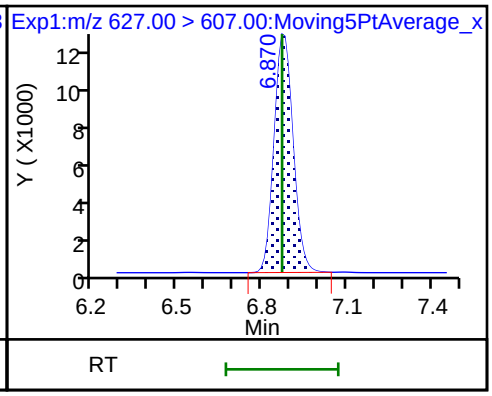
D 76 d7-N-MeFOSE-M



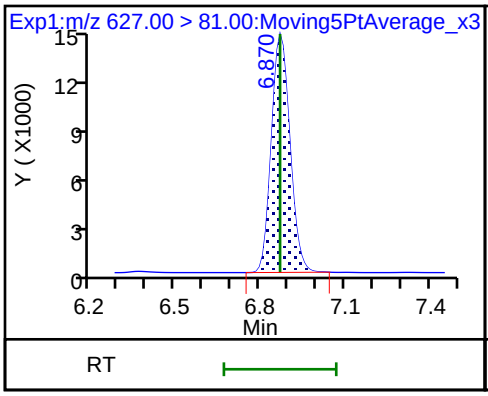
77 N-MeFOSE-M



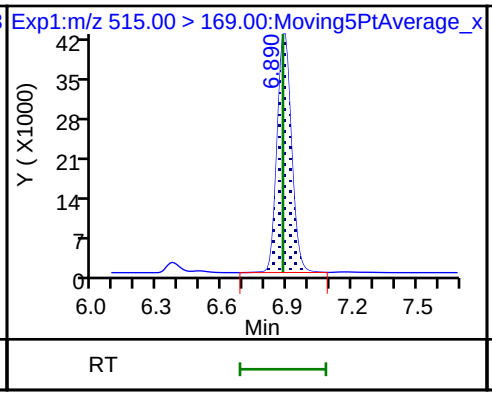
75 10:2 FTS



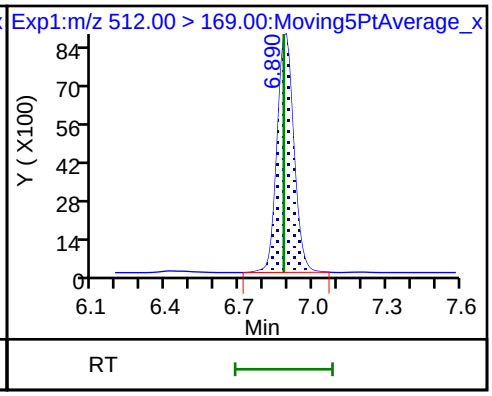
75 10:2 FTS



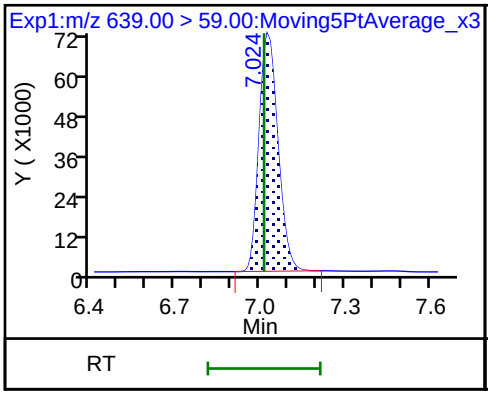
D 79 d3-NMePFOSA



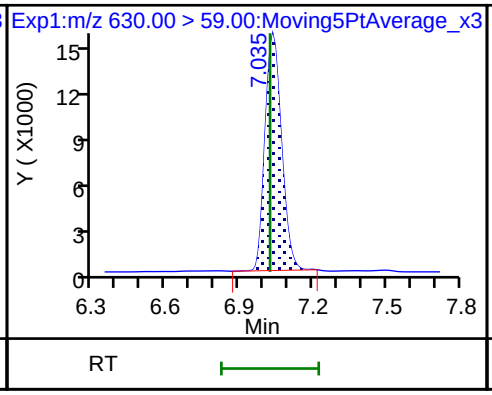
78 NMeFOSA



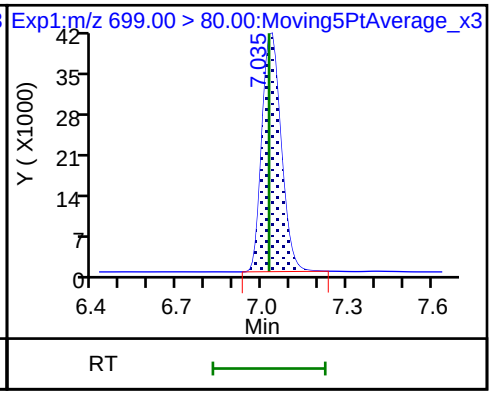
D 81 d9-N-EtFOSE-M



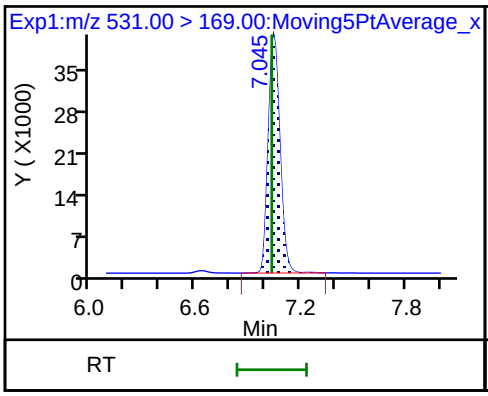
82 N-EtFOSE-M



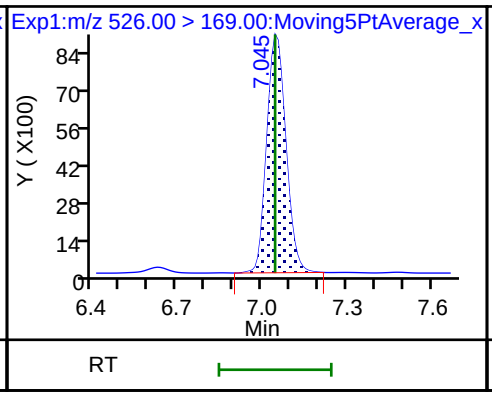
80 PFDoS



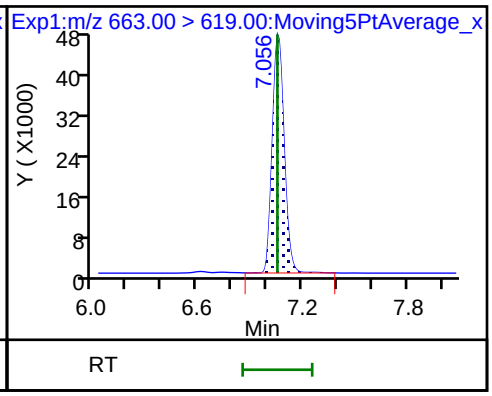
D 83 d5-NEtPFOSA



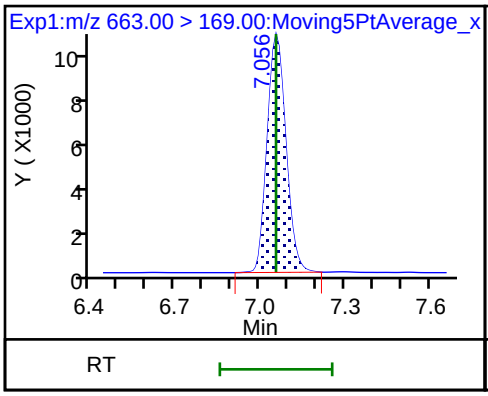
84 N-EtFOSA-M



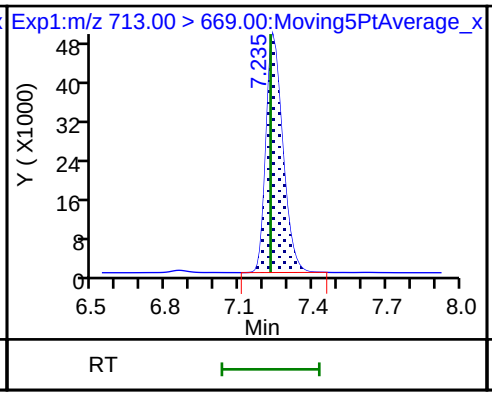
85 Perfluorotridecanoic acid



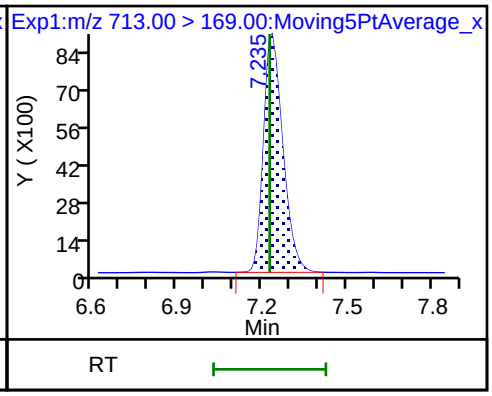
85 Perfluorotridecanoic acid



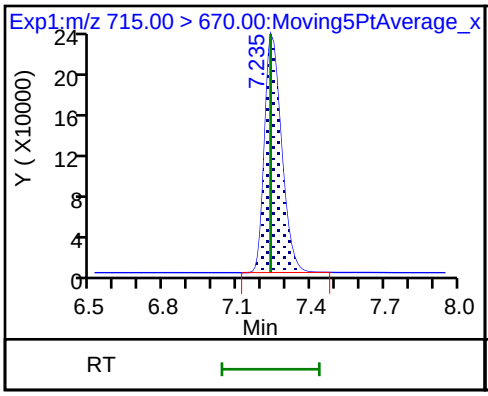
86 Perfluorotetradecanoic acid



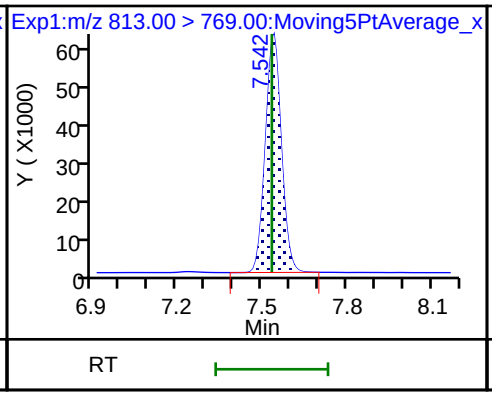
86 Perfluorotetradecanoic acid



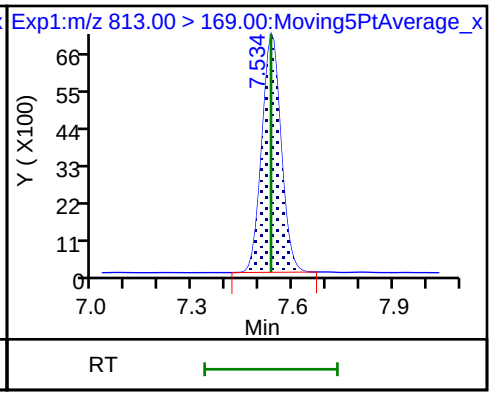
D 87 13C2 PFTeDA



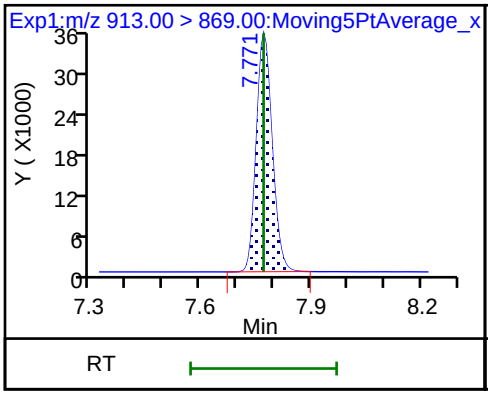
88 Perfluorohexadecanoic acid



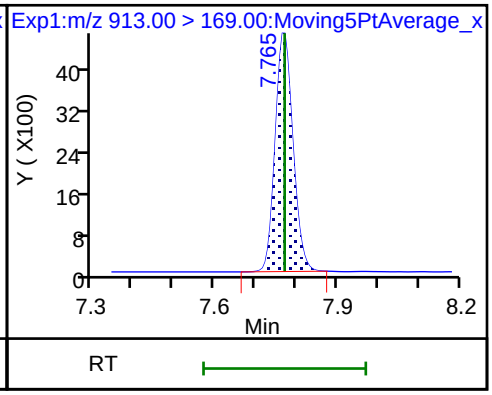
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

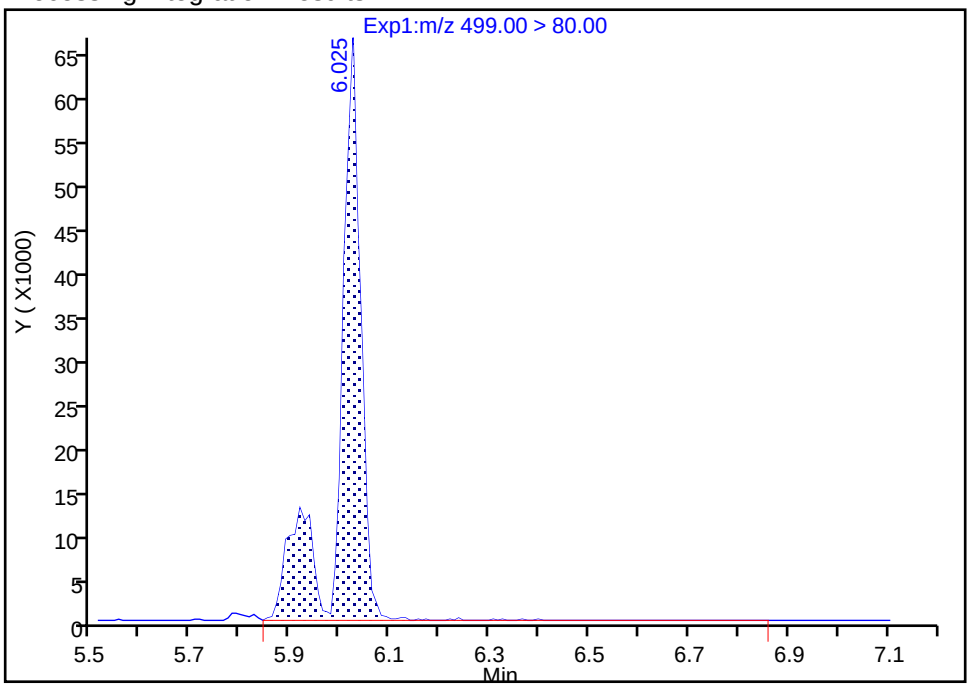
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-60.d				
Injection Date:	23-Feb-2022 08:40:08	Instrument ID:	30733		
Lims ID:	CCV 8_CAL3				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20004	Worklist Smp#:	56
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

43 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

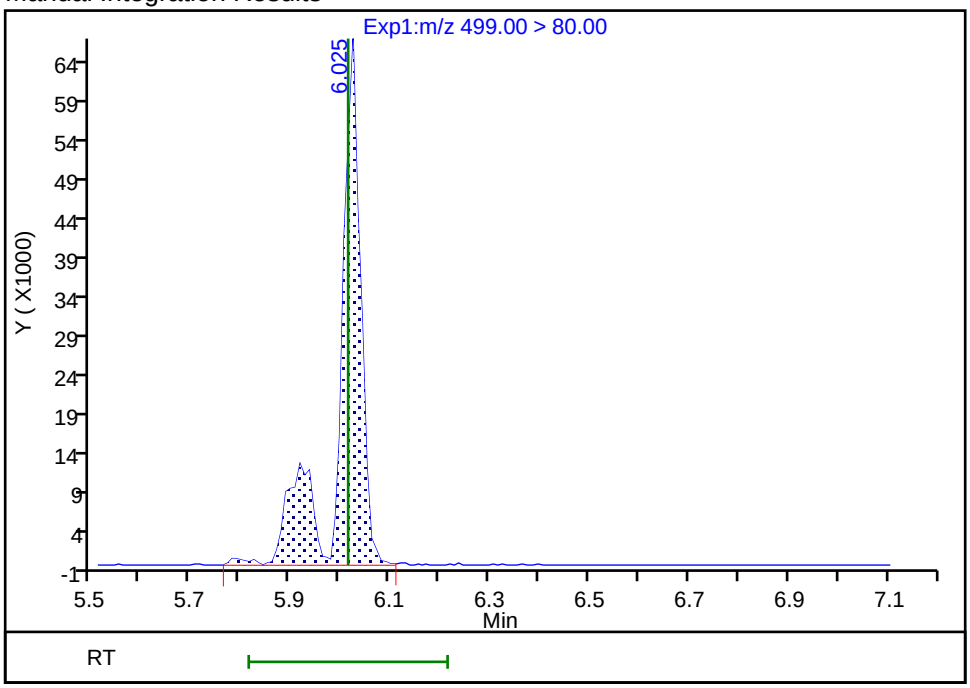
Processing Integration Results

RT: 6.03
Area: 201363
Amount: 1.923784
Amount Units: ng/ml



Manual Integration Results

RT: 6.03
Area: 203179
Amount: 1.941133
Amount Units: ng/ml



Reviewer: kruelleh, 23-Feb-2022 10:31:42

Audit Action: Manually Integrated Audit Reason: Isomers

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-226634/69 Calibration Date: 02/23/2022 11:05

Instrument ID: 30733 Calib Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 02/22/2022 16:18

Lab File ID: 22FEB22-73.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
MTP	AveID	0.0614	0.0560		7.30	8.00	-8.7	30.0
PPF Acid	AveID	0.4927	0.4604		7.47	8.00	-6.6	30.0
PFMOAA	AveID	0.3009	0.2691		7.15	8.00	-10.6	30.0
R-PSDA	AveID	0.0312	0.0316		8.12	8.00	1.4	30.0
R-EVE	AveID	0.0771	0.0732		7.59	8.00	-5.1	30.0
Hydrolyzed PSDA	AveID	0.1569	0.1551		7.91	8.00	-1.1	30.0
Perfluorobutanoic acid	AveID	0.9428	0.8504		7.22	8.00	-9.8	30.0
PMPA	AveID	0.4361	0.4087		7.50	8.00	-6.3	30.0
Perfluoropropanesulfonic acid	AveID	0.2294	0.2179		6.96	7.33	-5.0	30.0
NVHOS	AveID	0.2865	0.2673		7.46	8.00	-6.7	30.0
PFECA F	AveID	0.8975	0.8654		7.71	8.00	-3.6	30.0
PFO2HxA	AveID	0.3028	0.2853		7.54	8.00	-5.8	30.0
3:3 FTCA	AveID	0.0670	0.0616		7.35	8.00	-8.1	30.0
Perfluoropentanoic acid	AveID	1.038	0.9437		7.28	8.00	-9.1	30.0
Perfluorobutanesulfonic acid	AveID	1.076	0.9919		6.53	7.08	-7.8	30.0
PEPA	AveID	0.1836	0.1757		7.66	8.00	-4.3	30.0
PFECA A	AveID	0.9558	0.9355		7.83	8.00	-2.1	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	3.328	3.228		6.91	7.12	-3.0	30.0
PFECA B	AveID	1.174	1.146		7.81	8.00	-2.3	30.0
4:2 Fluorotelomer sulfonic acid	AveID	3.114	3.066		7.36	7.47	-1.5	30.0
Perfluorohexanoic acid	AveID	0.8387	0.6972		6.65	8.00	-16.9	30.0
Perfluoropentanesulfonic acid	AveID	0.9445	0.8997		7.15	7.50	-4.7	30.0
PFO3OA	AveID	0.2857	0.2819		7.90	8.00	-1.3	30.0
HFPODA	AveID	1.913	1.750		7.32	8.00	-8.5	30.0
Hydro-PS Acid	AveID	1.882	1.829		7.77	8.00	-2.8	30.0
Hydro-EVE Acid	AveID	1.264	1.246		7.88	8.00	-1.5	30.0
R-PSDCA	AveID	2.381	2.394		8.04	8.00	0.6	30.0
Perfluoroheptanoic acid	AveID	1.010	0.8906		7.05	8.00	-11.9	30.0
Perfluorohexanesulfonic acid	AveID	1.087	0.9790		6.57	7.30	-9.9	30.0
DONA	AveID	1.274	1.180		7.00	7.56	-7.4	30.0
PFECA G	AveID	1.449	1.378		7.61	8.00	-4.9	30.0
5:3 FTCA	AveID	0.2016	0.1968		7.81	8.00	-2.4	30.0
6:2 FTUCA	AveID	1.359	1.304		7.68	8.00	-4.0	30.0
6:2 FTCA	AveID	1.055	1.113		8.44	8.00	5.5	30.0
PFO4DA	AveID	0.3310	0.3171		7.66	8.00	-4.2	30.0
PS Acid	AveID	0.5979	0.5946		7.96	8.00	-0.6	30.0
EVE Acid	AveID	0.9669	0.998		8.25	8.00	3.2	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.777	1.678		6.98	7.39	-5.6	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-226634/69 Calibration Date: 02/23/2022 11:05

Instrument ID: 30733 Calib Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 02/22/2022 16:18

Lab File ID: 22FEB22-73.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
6:2 Fluorotelomer sulfonic acid	AveID	4.509	4.649		7.82	7.58	3.1	30.0
Perfluoroheptanesulfonic acid	AveID	1.015	0.9377		7.03	7.62	-7.6	30.0
Perfluorooctanoic acid	AveID	0.7647	0.7263		7.60	8.00	-5.0	30.0
TAF	AveID	0.2952	0.2809		7.61	8.00	-4.9	30.0
Perfluorooctanesulfonic acid	AveID	1.066	1.017		7.07	7.40	-4.6	30.0
Perfluorononanoic acid	AveID	0.9259	0.9208		7.96	8.00	-0.6	30.0
7:3 FTCA	AveID	3.296	3.404		8.26	8.00	3.3	30.0
8:2 FTUCA	AveID	1.066	1.019		7.65	8.00	-4.4	30.0
8:2 FTCA	AveID	0.9382	0.8392		7.16	8.00	-10.6	30.0
9Cl-PF3ONS	AveID	1.819	1.768		7.23	7.44	-2.8	30.0
Perfluorononanesulfonic acid	AveID	0.999	1.017		7.81	7.68	1.8	30.0
8:2 Fluorotelomer sulfonic acid	AveID	7.728	8.209		8.14	7.66	6.2	30.0
Perfluorodecanoic acid	AveID	0.9790	0.9760		7.98	8.00	-0.3	30.0
Perfluorooctanesulfonamide	AveID	1.005	0.9584		7.63	8.00	-4.6	30.0
NMeFOSAA	AveID	0.8244	0.7676		7.45	8.00	-6.9	30.0
Perfluorodecanesulfonic acid	AveID	1.038	1.041		7.73	7.71	0.3	30.0
Perfluoroundecanoic acid	AveID	0.8828	0.8261		7.49	8.00	-6.4	30.0
NEtFOSAA	AveID	0.8916	0.9713		8.72	8.00	8.9	30.0
10:2 FTUCA	AveID	1.022	1.009		7.90	8.00	-1.3	30.0
11Cl-PF3OUdS	AveID	1.333	1.404		7.83	7.44	5.3	30.0
10:2 FTCA	L1ID		0.9570		8.58	8.00	7.2	30.0
Perfluorododecanoic acid	AveID	1.018	1.047		8.23	8.00	2.8	30.0
10:2 FTS	AveID	5.124	5.003		7.53	7.71	-2.4	30.0
NMeFOSE	AveID	1.069	1.006		7.53	8.00	-5.9	30.0
NMeFOSA	AveID	1.122	0.9750		6.95	8.00	-13.1	30.0
Perfluorododecanesulfonic acid	AveID	0.9567	0.8745		7.08	7.74	-8.6	30.0
NEtFOSE	AveID	1.041	1.039		7.99	8.00	-0.1	30.0
NEtFOSA	AveID	1.059	1.019		7.70	8.00	-3.8	30.0
Perfluorotridecanoic acid	AveID	0.7467	0.7798		8.36	8.00	4.4	30.0
Perfluorotetradecanoic acid	AveID	0.9176	0.8909		7.77	8.00	-2.9	30.0
Perfluorohexadecanoic acid	AveID	1.027	0.8959		6.98	8.00	-12.7	30.0
Perfluorooctadecanoic acid	AveID	0.4272	0.4025		7.54	8.00	-5.8	30.0
13C4 PFBA	Ave	1.113	1.082		9.72	10.0	-2.8	30.0
13C5 PFPeA	Ave	0.9609	0.9531		9.92	10.0	-0.8	30.0
13C3 PFBS	Ave	0.7607	0.7420		9.07	9.30	-2.5	30.0
M2-4:2 FTS	Ave	0.1389	0.1338		9.00	9.34	-3.6	30.0
13C5 PFHxA	Ave	1.080	1.185		11.0	10.0	9.7	30.0
13C3 HFPO-DA	Ave	0.1589	0.1590		10.0	10.0	0.0	30.0
13C3 PFHxS	Ave	0.6680	0.7258		10.3	9.46	8.7	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Lab Sample ID: CCV 410-226634/69 Calibration Date: 02/23/2022 11:05

Instrument ID: 30733 Calib Start Date: 02/22/2022 15:12

GC Column: Gemini C18 50mm ID: 3.00(mm) Calib End Date: 02/22/2022 16:18

Lab File ID: 22FEB22-73.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFHpA	Ave	1.203	1.313		10.9	10.0	9.2	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	1.039	1.136		10.9	10.0	9.4	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.0954	0.0948		9.93	10.0	-0.7	30.0
M2-6:2 FTS	Ave	0.0574	0.0525		8.69	9.50	-8.5	30.0
13C8 PFOA	Ave	1.325	1.318		9.95	10.0	-0.5	30.0
13C8 PFOS	Ave	1.009	1.017		9.64	9.56	0.8	30.0
13C9 PFNA	Ave	1.679	1.623		9.67	10.0	-3.3	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	1.103	1.098		9.96	10.0	-0.4	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.0739	0.0754		10.2	10.0	2.1	30.0
13C6 PFDA	Ave	0.996	0.9853		9.90	10.0	-1.0	30.0
M2-8:2 FTS	Ave	0.0271	0.0265		9.34	9.58	-2.5	30.0
13C8 FOSA	Ave	0.9410	0.9511		10.1	10.0	1.1	30.0
d3-NMeFOSAA	Ave	0.3357	0.3372		10.0	10.0	0.4	30.0
13C7 PFUnA	Ave	0.9671	1.003		10.4	10.0	3.7	30.0
d5-NEtFOSAA	Ave	0.2349	0.2329		9.92	10.0	-0.8	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.8336	0.9126		10.9	10.0	9.5	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0412	0.0430		10.4	10.0	4.3	30.0
13C2-PFDoDA	Ave	0.7173	0.6820		9.51	10.0	-4.9	30.0
d7-N-MeFOSE-M	Ave	0.1491	0.1470		9.86	10.0	-1.4	30.0
d3-NMePFOSA	Ave	0.0959	0.1001		10.4	10.0	4.3	30.0
d9-N-EtFOSE-M	Ave	0.1704	0.1639		9.62	10.0	-3.8	30.0
d5-NEtPFOSA	Ave	0.0915	0.0949		10.4	10.0	3.7	30.0
13C2 PFTeDA	Ave	0.6058	0.6129		10.1	10.0	1.2	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-73.d
Lims ID: CCV 9_CAL4
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2022 11:05:36 ALS Bottle#: 20005 Worklist Smp#: 69
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: CCV 9_CAL4
Misc. Info.: Plate: 2 Rack: 1 410-0050963-069
Operator ID: US19_USR_INS20260 Instrument ID: 30733
Sublist: chrom-PFAS_30733_XList_2*sub5

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 11:53:51 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1671

First Level Reviewer: kruelleh Date: 23-Feb-2022 11:42:03
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										
175.00 > 97.00	1.475	1.469	0.006	0.371	69701	7.30		91.3	282	
1 PPF Acid										
163.00 > 119.00	1.826	1.837	-0.011	0.459	573003	7.47		93.4	3983	
96 PFMOAA										
179.00 > 85.00	2.936	2.942	-0.006	0.739	334882	7.15		89.4	1349	
100 R-PSDA										
441.00 > 241.00	3.949	3.947	0.002	0.863	27001	8.12		101	1857	
99 R-EVE										
405.00 > 217.00	3.958	3.947	0.011	0.996	91110	7.59		94.9	4792	
105 Hydrolyzed PSDA										
439.00 > 343.00	3.975	3.963	0.012	0.869	132411	7.91		98.9	8068	
D 3 13C4 PFBA										
217.00 > 172.00	3.975	3.972	0.003	1.000	1555840	9.72		97.2	87137	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.975	3.972	0.003	1.000	1058486	7.22		90.2	17135	
* 4 13C3-PFBA										
216.00 > 172.00	3.975	3.972	0.003		718859	5.00			3134	
102 PMPA										
229.00 > 185.00	4.101	4.098	0.003	1.032	508747	7.50		93.7	9807	
5 PFPrS										
249.00 > 99.00	4.163	4.159	0.004	1.047	248464	6.96		95.0	17449	
103 NVHOS										
297.00 > 135.00	4.205	4.191	0.014	0.919	228139	7.46		93.3	15689	
6 PFECA F										
229.00 > 85.00	4.226	4.223	0.003	1.063	1077114	7.71		96.4	18154	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 PFO2HxA										
245.00 > 85.00	4.405	4.402	0.003	1.108	355068	7.54		94.2	18177	
7 Perfluoropentanoic acid										
263.00 > 219.00	4.527	4.514	0.013	1.000	1034493	7.28		90.9	22985	
D 8 13C5 PFPeA										
268.00 > 223.00	4.527	4.524	0.003	1.139	1370286	9.92		99.2	77123	
9 3:3 FTCA										
241.00 > 177.00	4.527	4.524	0.003	1.000	67514	7.35		91.9	4996	
D 11 13C3 PFBS										
302.00 > 80.00	4.576	4.572	0.004	1.151	992127	9.07		97.5	75547	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.576	4.572	0.004	1.000	749144	6.53	Target=3.22	92.2	43106	
299.00 > 99.00	4.576	4.572	0.004	1.000	232898		3.22(1.61-4.83)		17782	
91 PEPA										
279.00 > 235.00	4.631	4.628	0.003	1.165	218736	7.66		95.7	8728	
12 PFECA A										
279.00 > 85.00	4.656	4.653	0.003	1.018	798373	7.83		97.9	65078	
13 PES										
315.00 > 135.00	4.750	4.740	0.010	1.038	2451901	6.91		97.0	150487	
14 PFECA B										
201.00 > 85.00	4.873	4.870	0.003	1.065	978211	7.81	Target=1.44	97.7	4343	
295.00 > 201.00	4.873	4.870	0.003	1.065	650703		1.50(0.72-2.15)		47288	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.912	4.899	0.013	0.861	184742	9.00		96.4	13151	
15 4:2 FTS										
327.00 > 307.00	4.902	4.899	0.003	0.998	453126	7.36	Target=1.53	98.5	32849	
327.00 > 81.00	4.902	4.899	0.003	0.998	279232		1.62(0.77-2.30)		19968	
D 19 13C5 PFHxA										
318.00 > 273.00	4.944	4.940	0.004	0.866	1751646	11.0		110	95031	
17 Perfluorohexanoic acid										
313.00 > 269.00	4.944	4.940	0.004	1.000	977059	6.65	Target=16.07	83.1	23268	
313.00 > 119.00	4.944	4.940	0.004	1.000	73325		13.33(8.04-24.11)		5251	
$ 18 13C2 PFHxA										
315.00 > 270.00	4.944	4.940	0.004	0.866	1346779	NC			97222	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.964	4.960	0.004	1.085	720235	7.15	Target=3.46	95.3	52253	
349.00 > 99.00	4.954	4.960	-0.006	1.083	213325		3.38(1.73-5.19)		15333	
93 PFO3OA										
311.00 > 85.00	5.003	4.999	0.004	1.259	350927	7.90		98.7	26684	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.074	5.070	0.004	0.889	234955	10.0		100	18226	
21 HFPO-DA										
329.00 > 285.00	5.074	5.070	0.004	1.000	328876	7.32		91.5	19197	
106 Hydro-PS Acid										
463.00 > 263.00	5.276	5.273	0.003	1.153	1560791	7.77		97.2	114693	
97 Hydro-EVE Acid										
427.00 > 283.00	5.287	5.284	0.003	1.330	1550713	7.88		98.5	2363	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
94 R-PSDCA										
397.00 > 217.00	5.287	5.284	0.003	1.155	2043466	8.04		101	142360	
D 25 13C3 PFHxS										
402.00 > 80.00	5.340	5.326	0.014	0.935	1014822	10.3		109	73476	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.340	5.326	0.014	1.000	766223	6.57	Target=3.59	90.1	1060	
399.00 > 99.00	5.340	5.326	0.014	1.000	211499		3.62(1.79-5.38)		616	
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.340	5.326	0.014	1.000	1382734	7.05	Target=3.65	88.1	33065	
363.00 > 169.00	5.329	5.326	0.003	0.998	376281		3.67(1.82-5.47)		20182	
D 24 13C4 PFHpA										
367.00 > 322.00	5.340	5.337	0.003	0.935	1940805	10.9		109	105256	
27 DONA										
377.00 > 251.00	5.386	5.374	0.012	1.009	1731831	7.00		92.6	82240	
98 PFECA G										
379.00 > 185.00	5.402	5.391	0.011	1.359	1714968	7.61		95.1	82213	
28 5:3 FTCA										
341.00 > 237.00	5.419	5.407	0.012	1.015	305506	7.81	Target=50.84	97.6	24067	
339.00 > 295.00	5.444	5.407	0.037	1.019	6968		43.84(25.42-76.26)		214	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.444	5.432	0.012	0.954	1679602	10.9		109	99734	
29 6:2 FTUCA										
357.00 > 293.00	5.435	5.432	0.003	0.998	1752542	7.68		96.0	104020	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.461	5.449	0.012	0.957	140052	9.93		99.3	11045	
32 6:2 FTCA										
377.00 > 293.00	5.461	5.449	0.012	1.000	124695	8.44		106	7429	
95 PFO4DA										
377.00 > 85.00	5.505	5.502	0.003	1.385	394644	7.66		95.8	494	
104 PS Acid										
443.00 > 147.00	5.556	5.544	0.012	1.214	507451	7.96		99.4	41058	
90 EVE Acid										
407.00 > 263.00	5.572	5.569	0.003	1.402	1241769	8.25		103	99278	
33 PFECHS										
461.00 > 381.00	5.642	5.629	0.013	1.057	1330674	6.98	Target=1.94	94.4	74388	
461.00 > 99.00	5.642	5.629	0.013	1.057	682076		1.95(0.97-2.91)		50467	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.689	5.677	0.012	0.997	73709	8.69		91.5	5353	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.689	5.677	0.012	1.065	766067	7.03	Target=3.50	92.4	56778	
449.00 > 99.00	5.689	5.677	0.012	1.065	221475		3.46(1.75-5.24)		16387	
34 6:2 FTS										
427.00 > 407.00	5.689	5.677	0.012	1.000	273581	7.82	Target=1.31	103	20144	
427.00 > 81.00	5.680	5.677	0.003	0.998	207078		1.32(0.65-1.96)		15084	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.699	5.696	0.003	0.998	1131793	7.60	Target=2.48	95.0	112718	
413.00 > 169.00	5.699	5.696	0.003	0.998	492064		2.30(1.24-3.72)		1144	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 37 13C8 PFOA										
421.00 > 376.00	5.709	5.696	0.013	1.000	1947807	9.95		99.5	107169	
$ 39 13C4 PFOA										
417.00 > 372.00	5.709	5.696	0.013	1.000	1832030	NC			134688	
* 38 13C2 PFOA										
415.00 > 370.00	5.709	5.696	0.013		738963	5.00			54423	
101 TAF										
443.00 > 85.00	5.949	5.945	0.004	1.497	349623	7.61		95.1	16520	
D 41 13C8 PFOS										
507.00 > 80.00	6.019	6.015	0.004	1.000	952698	9.64		101	27084	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00	6.019	6.015	0.004	1.000	750422	7.07	Target=4.38	95.4	1091	
499.00 > 99.00	6.019	6.015	0.004	1.000	164338		4.57(2.19-6.57)		438	
* 42 13C4 PFOS										
503.00 > 80.00	6.019	6.015	0.004		468463	4.78			26562	
D 45 13C9 PFNA										
472.00 > 427.00	6.047	6.033	0.014	1.005	1590253	9.67		96.7	89667	
44 Perfluorononanoic acid										
463.00 > 419.00	6.037	6.033	0.004	0.998	1171406	7.96	Target=4.84	99.4	44466	
463.00 > 169.00	6.037	6.033	0.004	0.998	227657		5.15(2.42-7.25)		17486	
46 7:3 FTCA										
441.00 > 337.00	6.142	6.139	0.003	1.125	381361	8.26		103	29897	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.151	6.148	0.003	0.969	2040967	9.96		99.6	98473	
47 8:2 FTUCA										
457.00 > 393.00	6.151	6.148	0.003	1.000	1664311	7.65		95.6	132047	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.166	6.164	0.002	0.972	140190	10.2		102	11475	
49 8:2 FTCA										
477.00 > 393.00	6.166	6.164	0.002	1.000	94116	7.16		89.4	7890	
51 9ClFOS										
531.00 > 351.00	6.197	6.187	0.010	1.029	1310524	7.23		97.2	65534	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.318	6.316	0.002	1.050	778103	7.81	Target=4.28	102	58053	
549.00 > 99.00	6.318	6.316	0.002	1.050	176945		4.40(2.14-6.42)		13426	
D 54 13C6 PFDA										
519.00 > 474.00	6.346	6.344	0.002	1.000	1830925	9.90		99.0	99341	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.346	6.344	0.002	1.000	1429587	7.98	Target=10.44	99.7	51885	
513.00 > 169.00	6.337	6.344	-0.007	0.998	122030		11.72(5.22-15.66)		8839	
* 55 13C2 PFDA										
515.00 > 470.00	6.346	6.344	0.002		929126	5.00			66871	
56 8:2 FTS										
527.00 > 507.00	6.346	6.344	0.002	1.000	309308	8.14	Target=1.54	106	22190	
527.00 > 81.00	6.346	6.344	0.002	1.000	174734		1.77(0.77-2.31)		12600	
D 57 M2-8:2 FTS										
529.00 > 81.00	6.346	6.354	-0.008	1.000	47101	9.34		97.5	3304	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 59 13C8 FOSA										
506.00 > 78.00	6.431	6.419	0.012	1.013	1767462	10.1		101	92305	
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.421	6.419	0.002	0.998	1355119	7.63		95.4	93255	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.493	6.491	0.002	1.023	626546	10.0		100	32320	
60 NMeFOSAA										M
570.00 > 419.00	6.502	6.491	0.011	1.001	384734	7.45	Target=1.64	93.1	127611	M
570.00 > 483.00	6.493	6.491	0.002	1.000	243223		1.58(0.82-2.46)		199	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.593	6.580	0.013	1.095	799930	7.73	Target=4.07	100	38635	
599.00 > 99.00	6.581	6.580	0.001	1.093	190638		4.20(2.03-6.10)		12415	
D 65 13C7 PFUnA										
570.00 > 525.00	6.616	6.615	0.001	1.043	1863337	10.4		104	121509	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.616	6.615	0.001	1.000	1231495	7.49	Target=8.63	93.6	34718	
563.00 > 169.00	6.616	6.615	0.001	1.000	136372		9.03(4.31-12.94)		8792	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.616	6.615	0.001	1.159	1608513	NC			105208	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.628	6.626	0.002	1.044	432860	9.92		99.2	21261	
67 NEtFOSAA										
584.00 > 419.00	6.639	6.638	0.001	1.002	336366	8.72	Target=1.31	109	389	
584.00 > 526.00	6.628	6.638	-0.010	1.000	215063		1.56(0.66-1.97)		348	
68 10:2 FTUCA										
557.00 > 493.00	6.715	6.713	0.002	0.998	1369255	7.90		98.7	65692	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.727	6.725	0.002	1.060	1695910	10.9		109	109326	
69 11ClFOS										
631.00 > 451.00	6.727	6.725	0.002	1.118	1040704	7.83		105	67265	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.739	6.737	0.002	1.062	79887	10.4		104	5164	
71 10:2 FTCA										
577.00 > 493.00	6.739	6.737	0.002	1.000	61162	8.58		107	3942	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.851	6.850	0.001	1.000	1061109	8.23	Target=5.13	103	46005	
613.00 > 169.00	6.851	6.850	0.001	1.000	199435		5.32(2.56-7.69)		14201	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.851	6.850	0.001	1.079	1267397	9.51		95.1	89961	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.871	6.860	0.011	1.083	273239	9.86		98.6	11755	
77 N-MeFOSE-M										
616.00 > 59.00	6.871	6.870	0.001	1.000	219903	7.53		94.1	9600	
75 10:2 FTS										
627.00 > 607.00	6.871	6.870	0.001	1.083	189691	7.53	Target=0.83	97.6	13741	
627.00 > 81.00	6.861	6.870	-0.009	1.081	239544		0.79(0.42-1.25)		17216	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 79 d3-NMePFOSA										
515.00 > 169.00	6.882	6.880	0.002	1.084	185927	10.4		104	5898	
78 NMeFOSA										
512.00 > 169.00	6.882	6.880	0.002	1.000	145028	6.95		86.9	10481	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.025	7.013	0.012	1.107	304479	9.62		96.2	9376	
82 N-EtFOSE-M										
630.00 > 59.00	7.036	7.024	0.012	1.002	253190	7.99		99.9	13454	
80 PFDoS										
699.00 > 80.00	7.025	7.024	0.001	1.167	674892	7.08		91.4	36168	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.047	7.035	0.012	1.110	176320	10.4		104	9481	
84 N-EtFOSA-M										
526.00 > 169.00	7.047	7.045	0.002	1.000	143713	7.70		96.2	7739	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.057	7.056	0.001	1.030	790659	8.36	Target=4.34	104	34438	
663.00 > 169.00	7.057	7.056	0.001	1.030	174288		4.54(2.17-6.51)		12376	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.227	7.226	0.001	0.999	811741	7.77	Target=5.08	97.1	28613	
713.00 > 169.00	7.227	7.226	0.001	0.999	154397		5.26(2.54-7.61)		11102	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.236	7.234	0.002	1.140	1138960	10.1		101	59999	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.535	7.534	0.001	1.041	816310	6.98	Target=9.01	87.3	34370	
813.00 > 169.00	7.535	7.534	0.001	1.041	92242		8.85(4.50-13.51)		7745	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.772	7.770	0.002	1.074	366743	7.54	Target=7.79	94.2	30455	
913.00 > 169.00	7.766	7.770	-0.004	1.073	48974		7.49(3.89-11.68)		5516	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

PFC_STD_XMOD4_00014 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 11:53:54 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-73.d

Injection Date: 23-Feb-2022 11:05:36 Instrument ID: 30733

Lims ID: CCV 9_CAL4

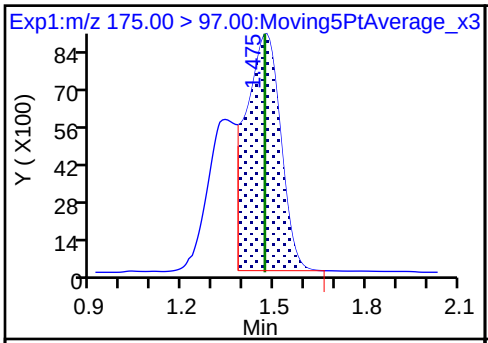
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20005 Worklist Smp#: 69

Injection Vol: 5.0 ul Dil. Factor: 1.0000

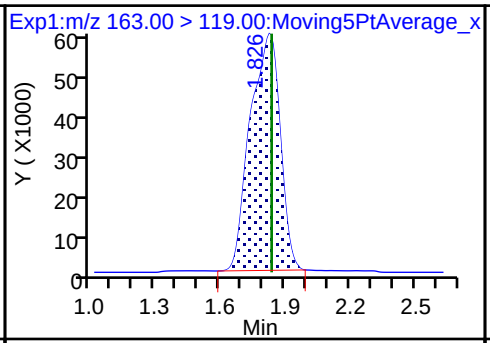
Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

107 MTP



RT

1 PPF Acid



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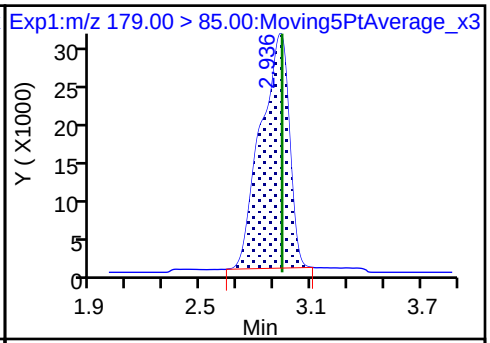
96 PFMOAA



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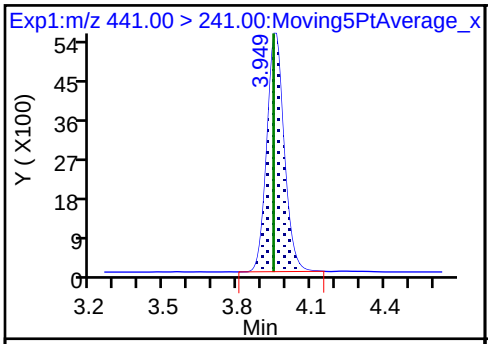
100 R-PSDA



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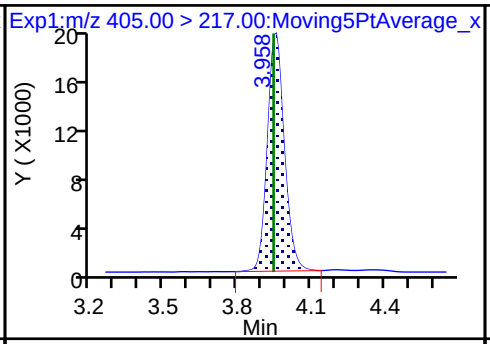
99 R-EVE



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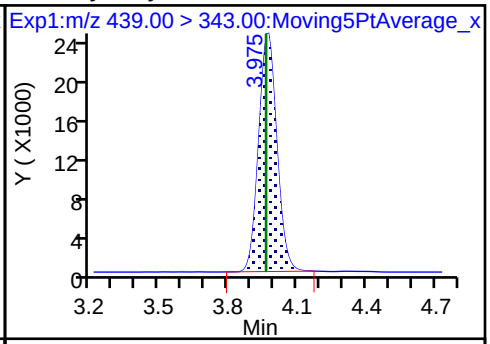
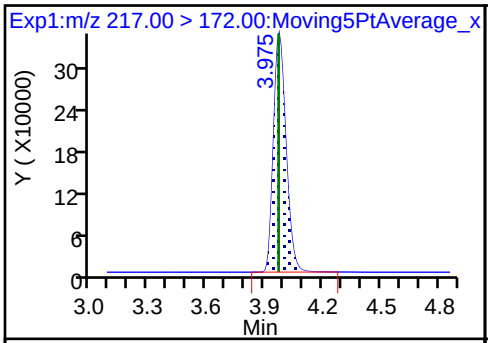
105 Hydrolyzed PSDA



RT

D 3 13C4 PFBA



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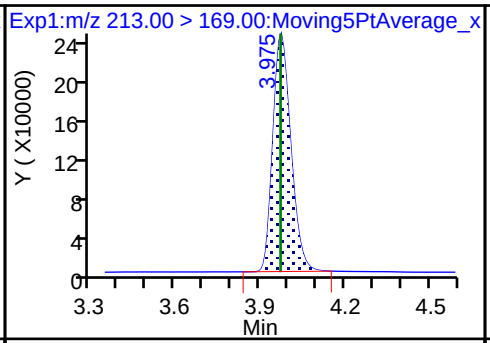
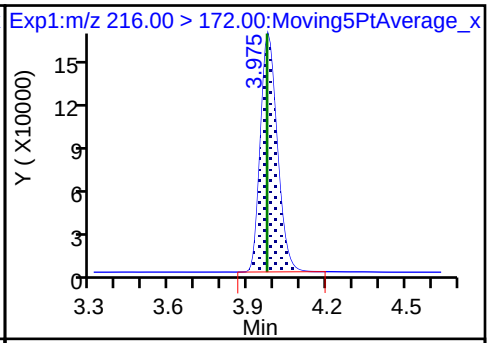
2 Perfluorobutanoic acid



RT

* 4 13C3-PFBA



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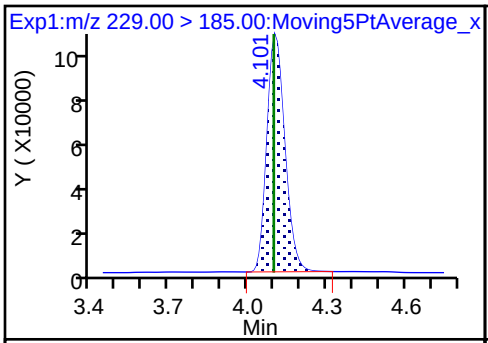
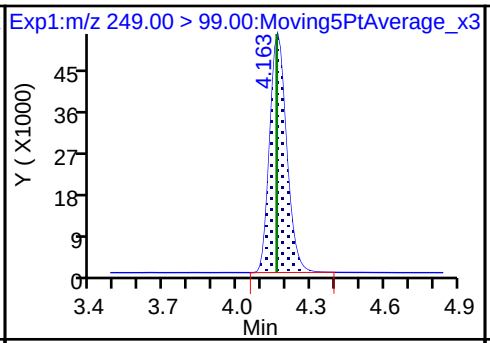
102 PMPA



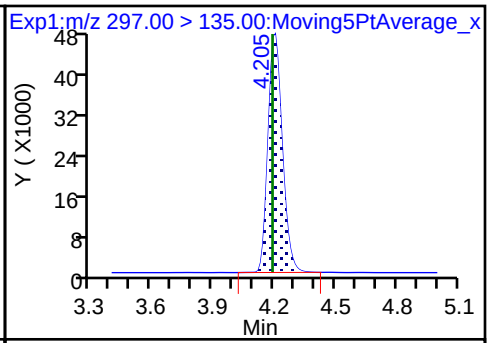
RT

5 PFPrS



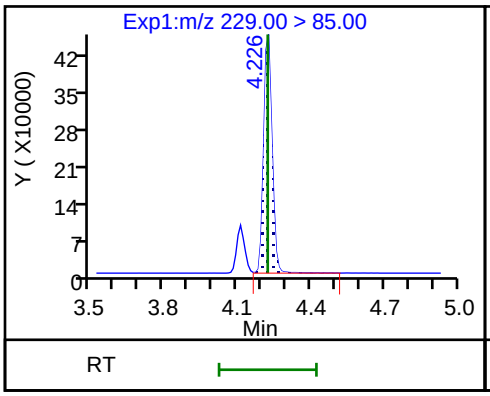
RT

103 NVHOS

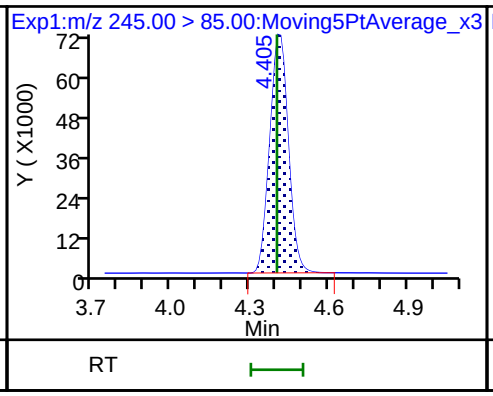


RT

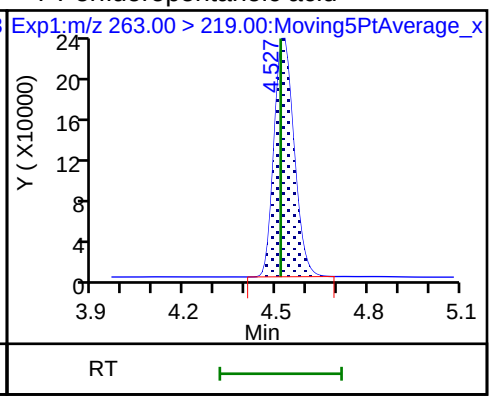
6 PFECA F



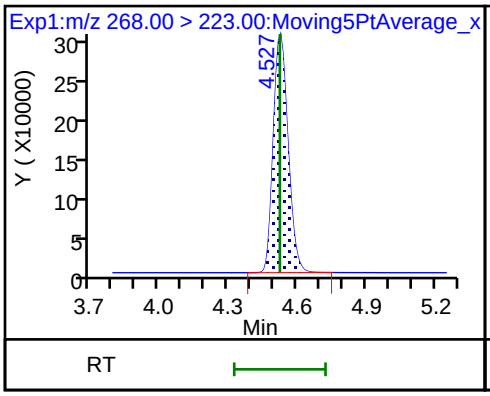
92 PFO2HxA



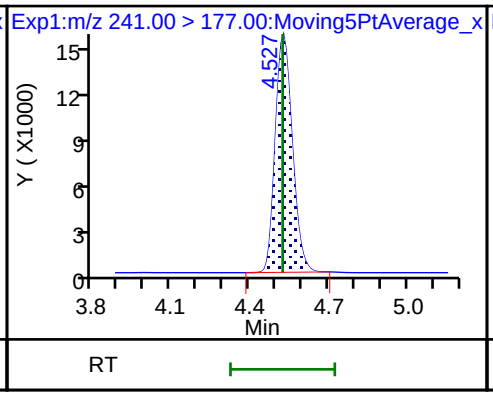
7 Perfluoropentanoic acid



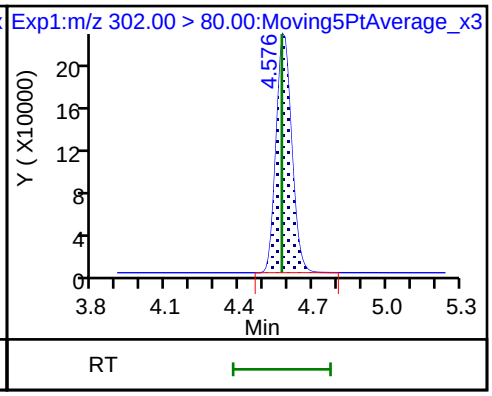
D 8 13C5 PFPeA



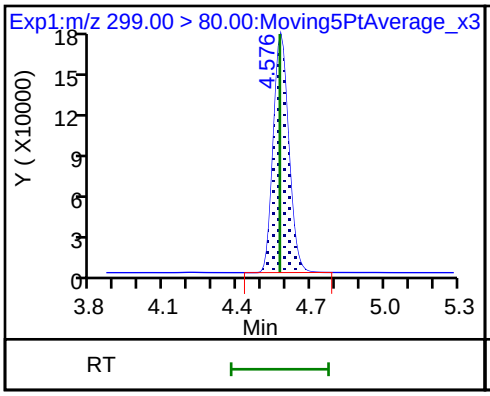
9 3:3 FTCA



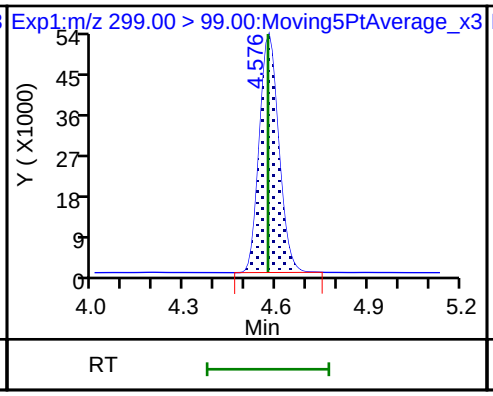
D 11 13C3 PFBS



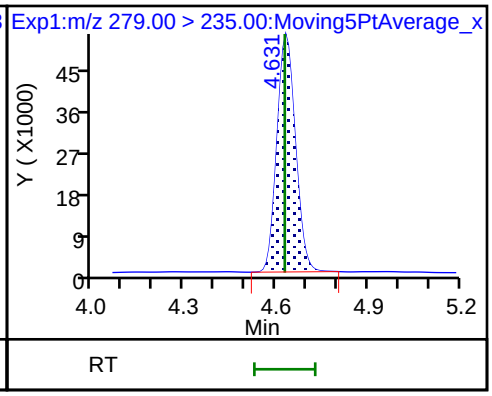
10 Perfluorobutanesulfonic acid



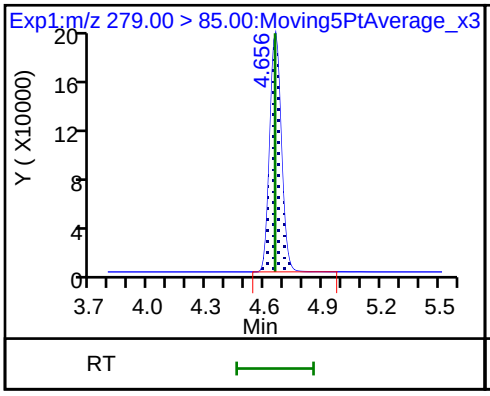
10 Perfluorobutanesulfonic acid



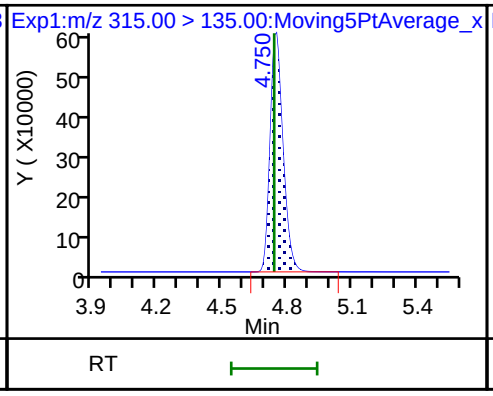
91 PEPA



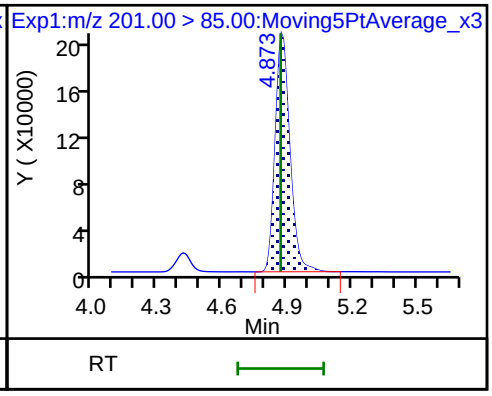
12 PFECA A



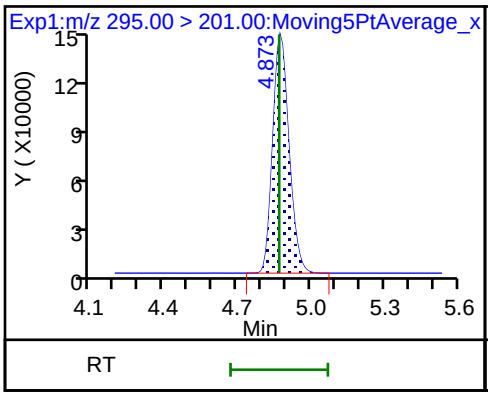
13 PES



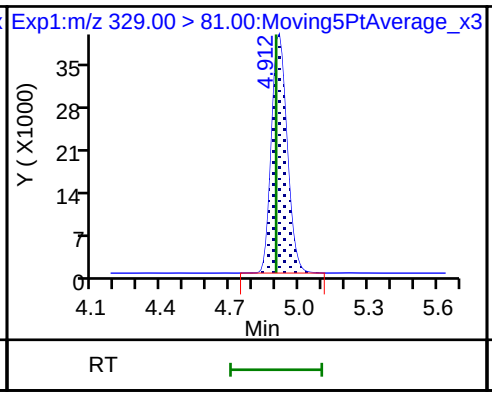
14 PFECA B



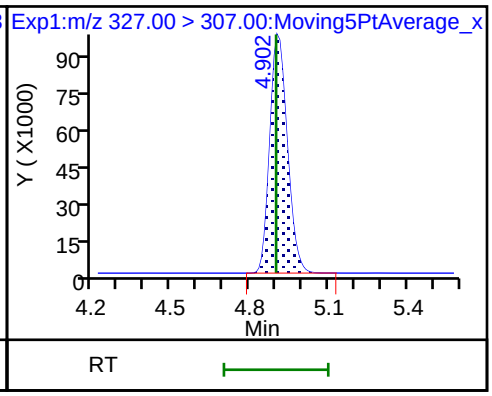
14 PFECA B



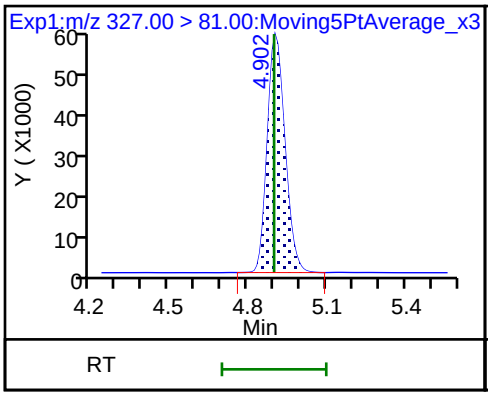
D 16 M2-4:2 FTS



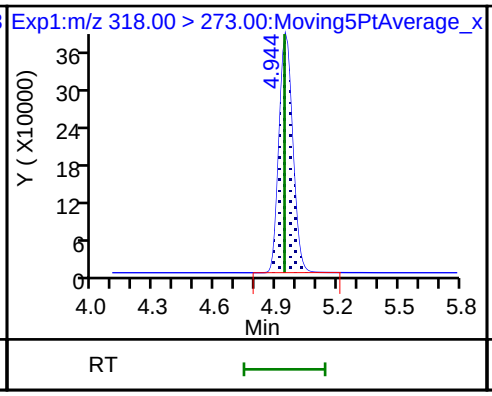
15 4:2 FTS



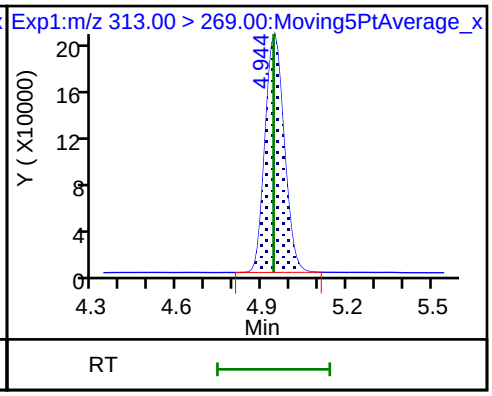
15 4:2 FTS



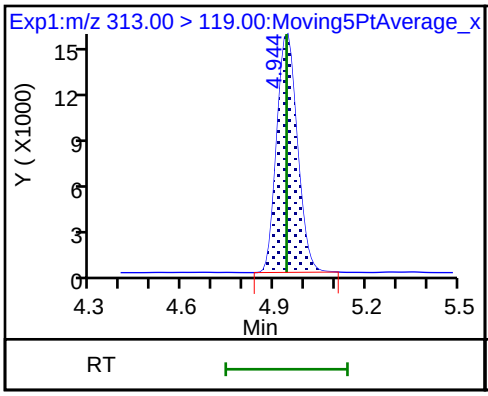
D 19 13C5 PFHxA



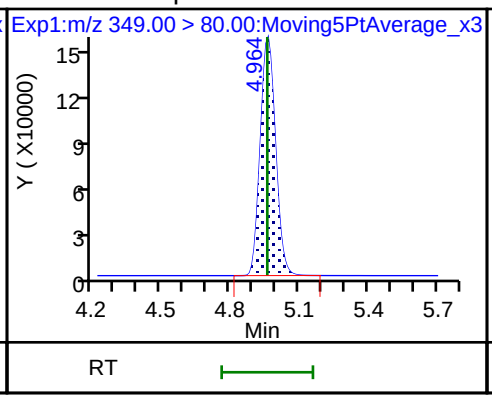
17 Perfluorohexanoic acid



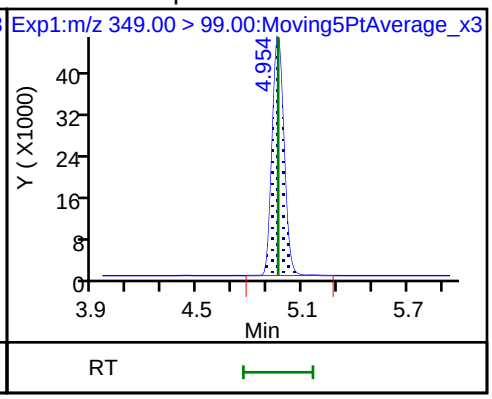
17 Perfluorohexanoic acid



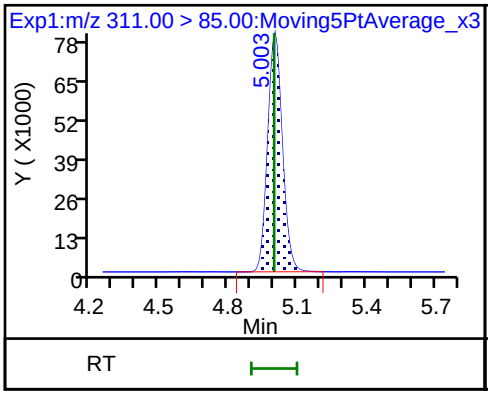
20 Perfluoropentanesulfonic acid



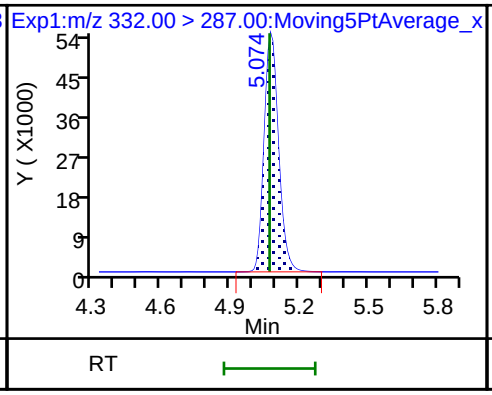
20 Perfluoropentanesulfonic acid



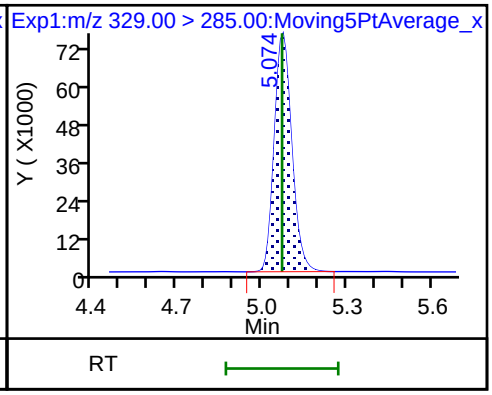
93 PFO3OA



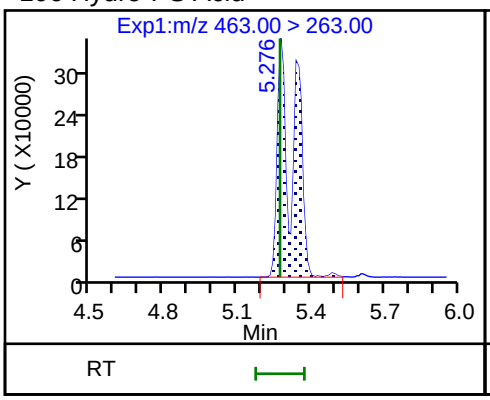
D 22 13C3 HFPO-DA



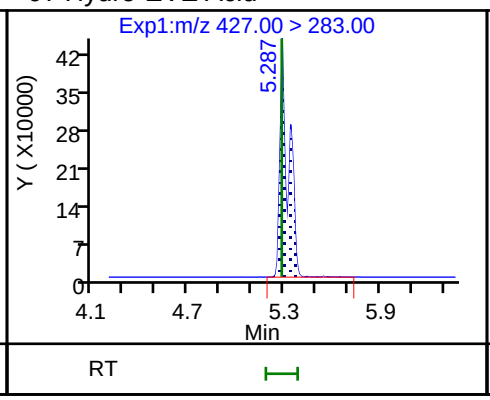
21 HFPO-DA



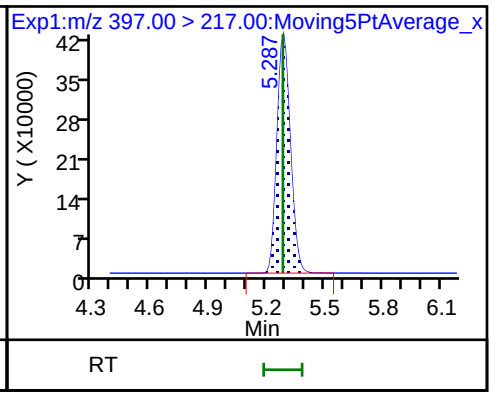
106 Hydro-PS Acid



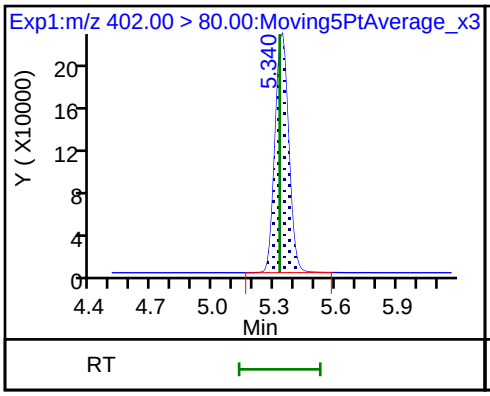
97 Hydro-EVE Acid



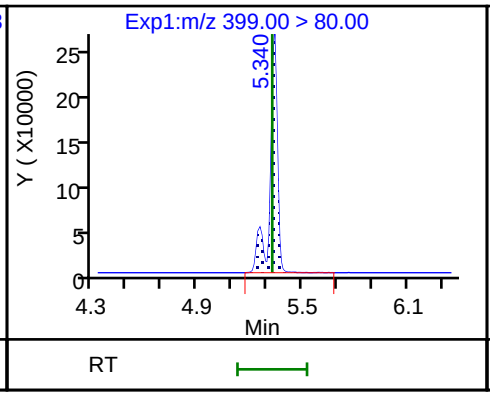
94 R-PSDCA



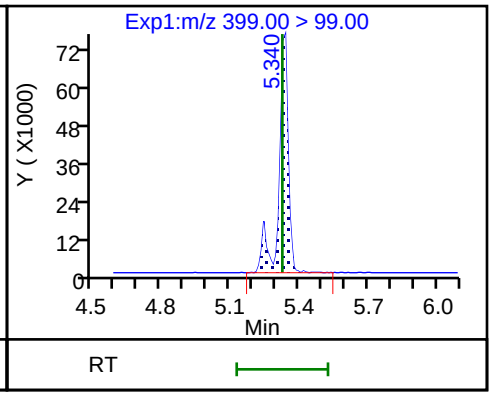
D 25 13C3 PFHxS



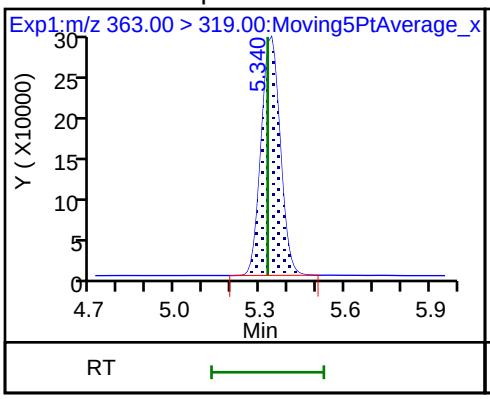
26 Perfluorohexanesulfonic acid



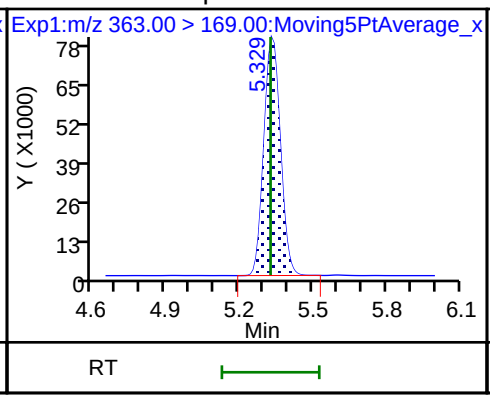
26 Perfluorohexanesulfonic acid



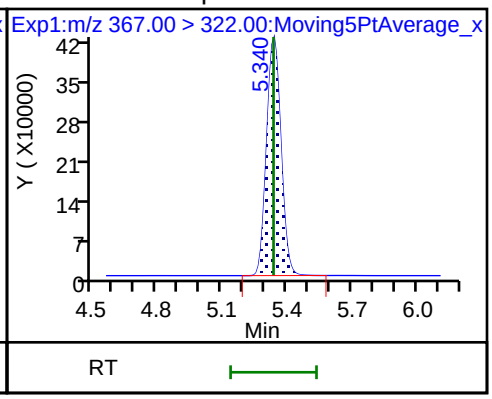
23 Perfluoroheptanoic acid



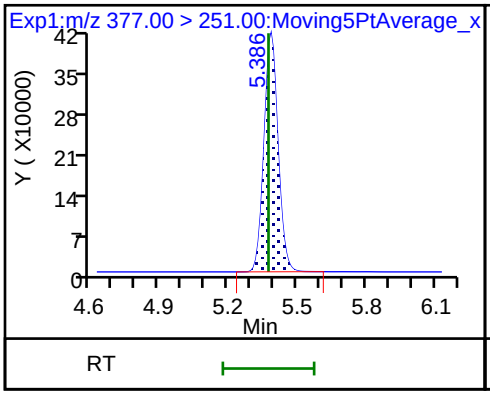
23 Perfluoroheptanoic acid



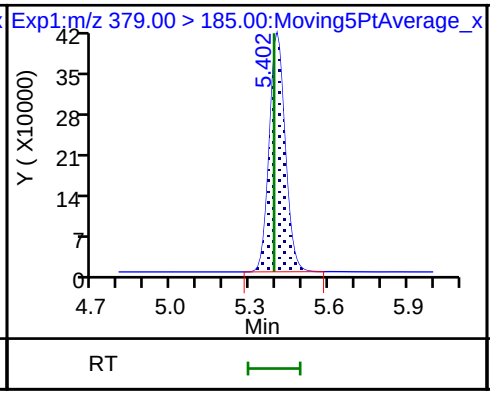
D 24 13C4 PFHpA



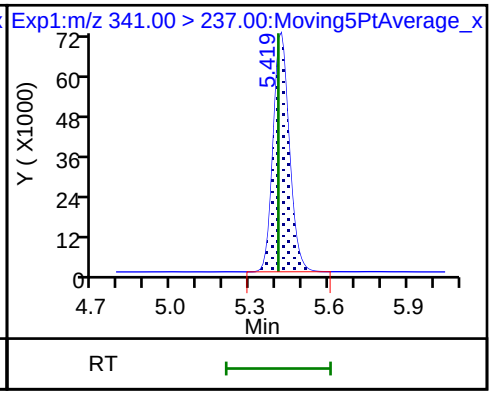
27 DONA



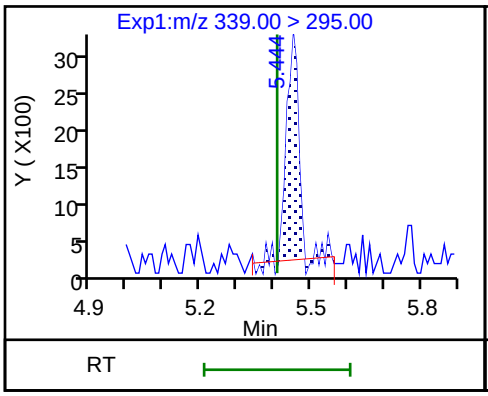
98 PFECA G



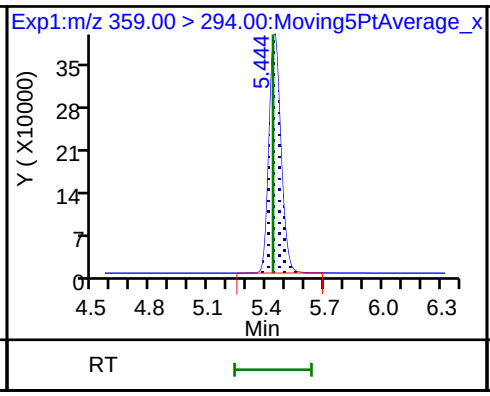
28 5:3 FTCA



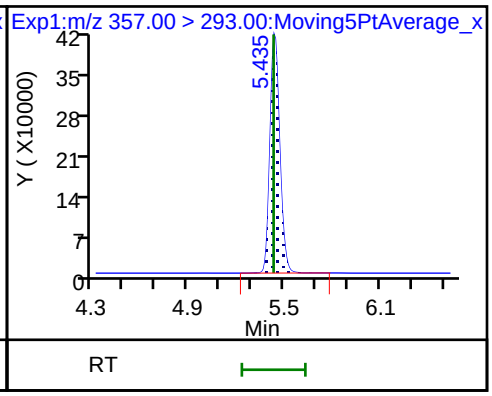
28 5:3 FTCA



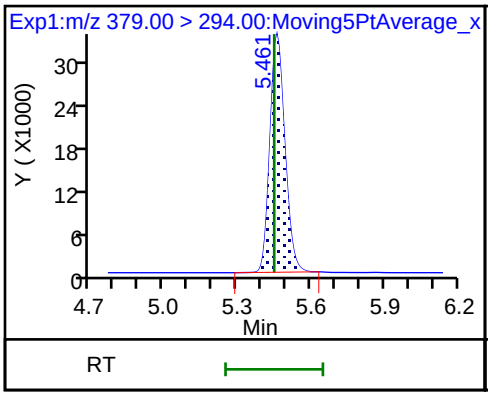
D 30 13C-6:2 FTUCA



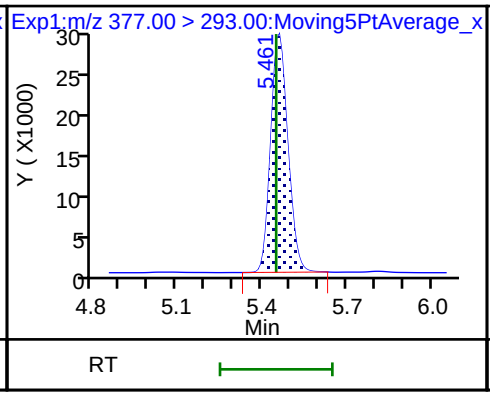
29 6:2 FTUCA



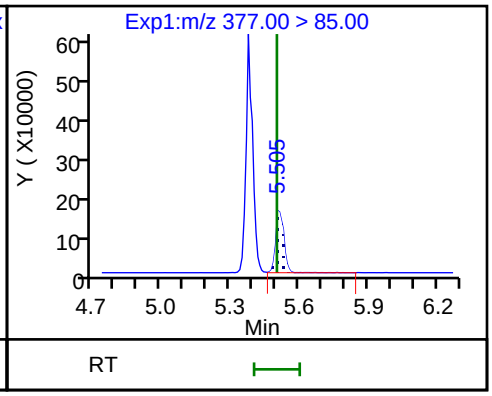
D 31 13C-6:2 FTCA



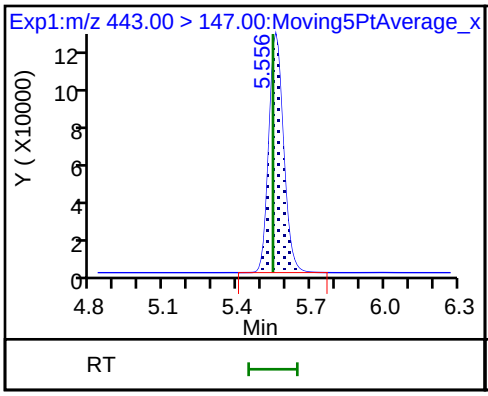
32 6:2 FTCA



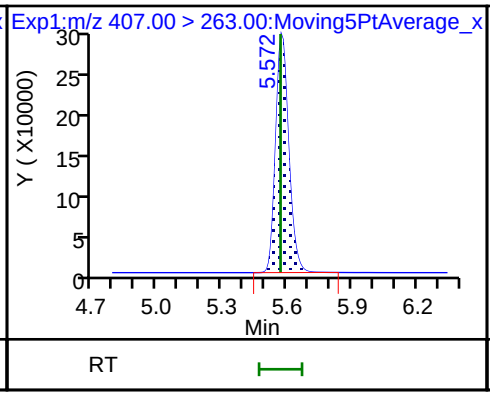
95 PFO4DA



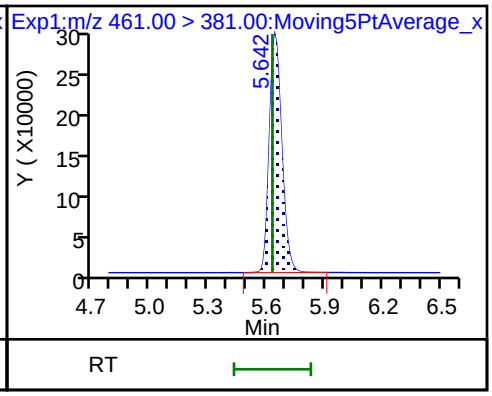
104 PS Acid



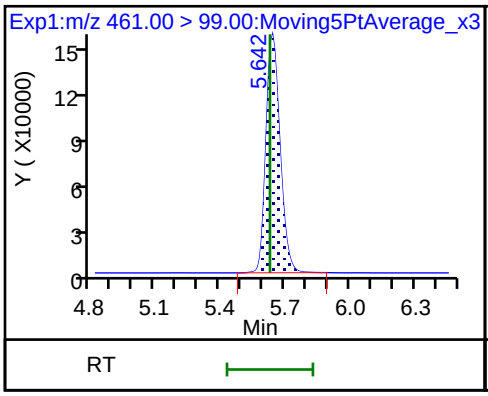
90 EVE Acid



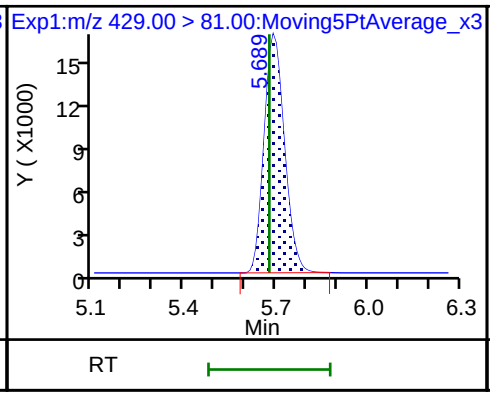
33 PFECHS



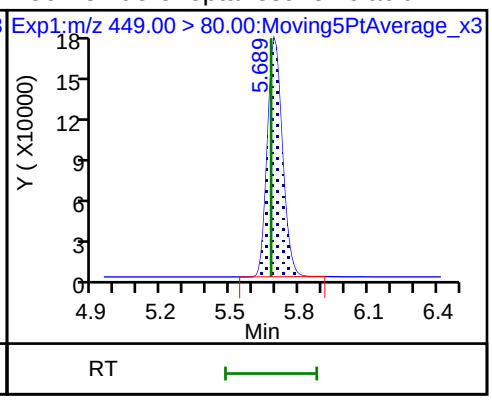
33 PFECHS



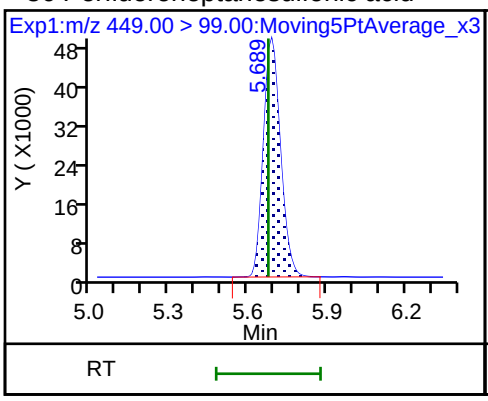
D 35 M2-6:2 FTS



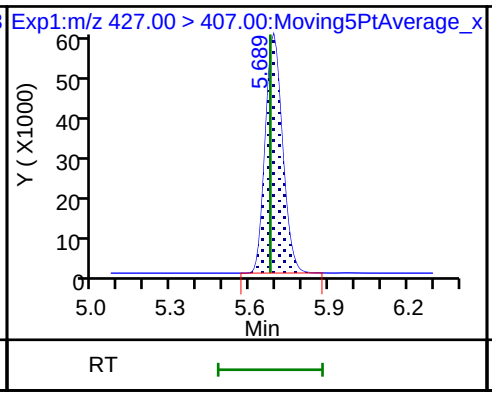
36 Perfluoroheptanesulfonic acid



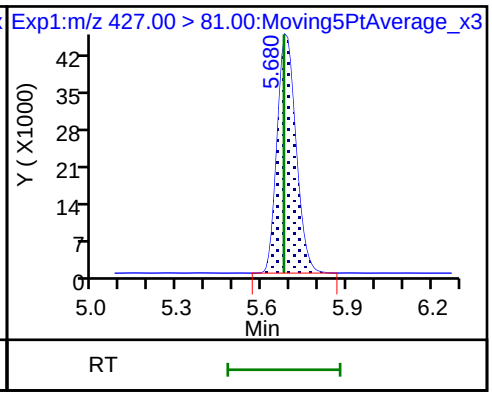
36 Perfluoroheptanesulfonic acid



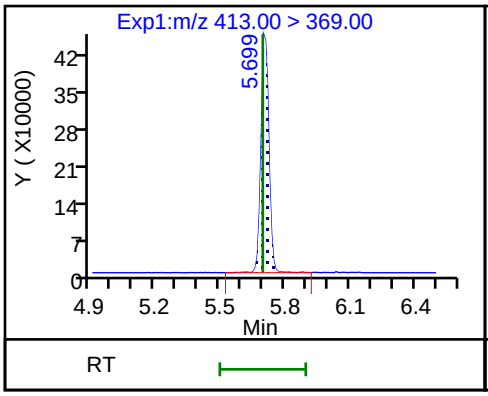
34 6:2 FTS



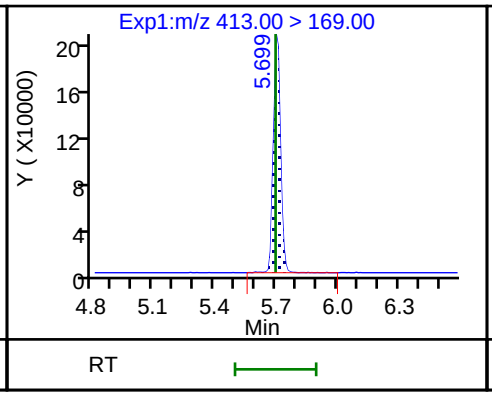
34 6:2 FTS



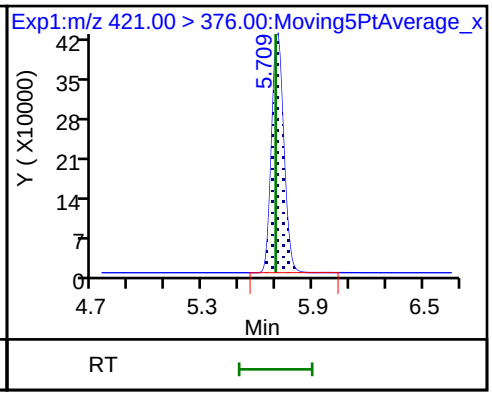
40 Perfluorooctanoic acid



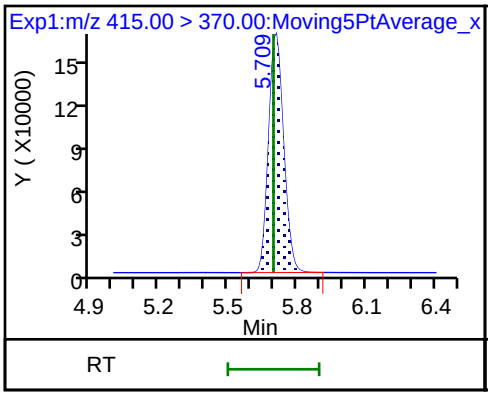
40 Perfluorooctanoic acid



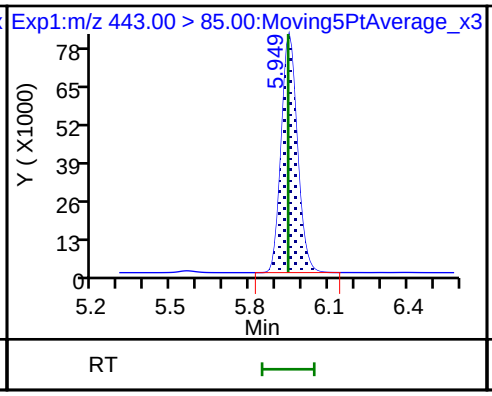
D 37 13C8 PFOA



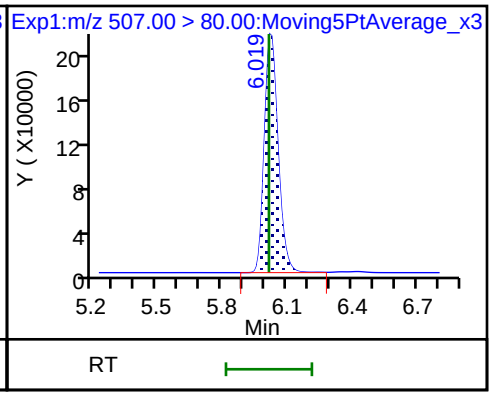
* 38 13C2 PFOA



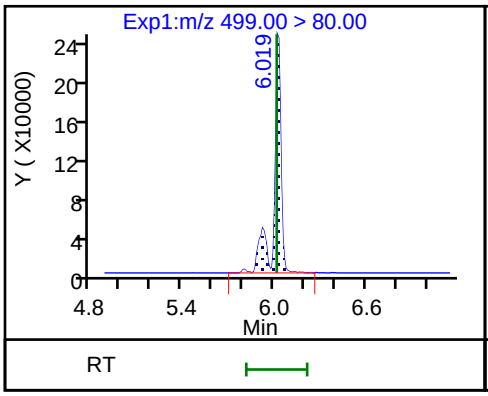
101 TAF



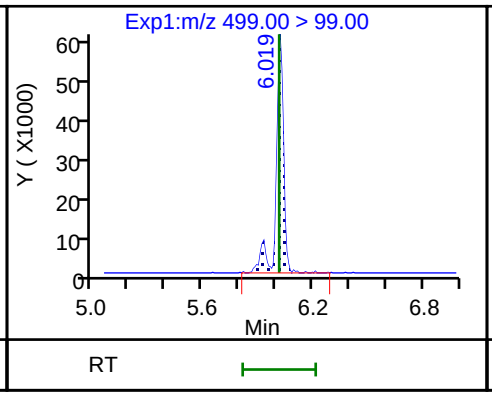
D 41 13C8 PFOS



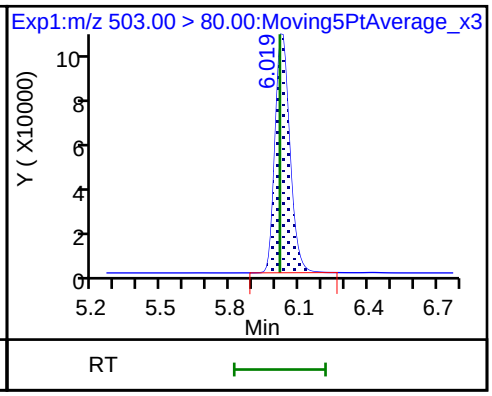
43 Perfluorooctanesulfonic acid



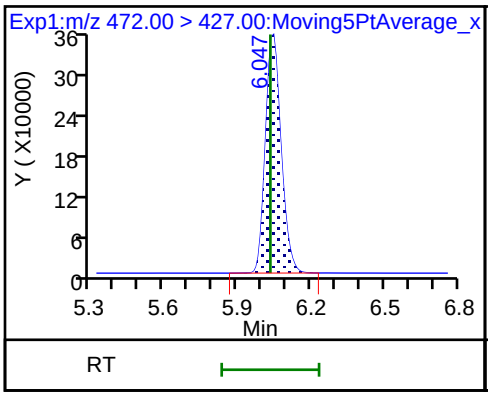
43 Perfluorooctanesulfonic acid



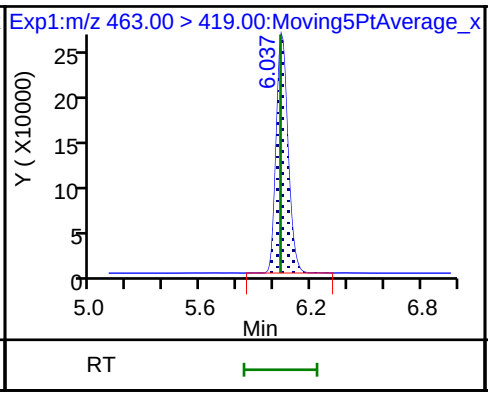
* 42 13C4 PFOS



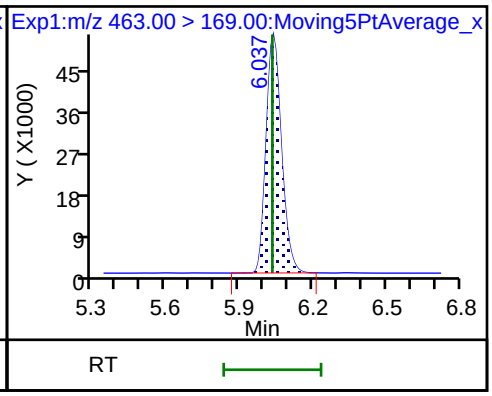
D 45 13C9 PFNA



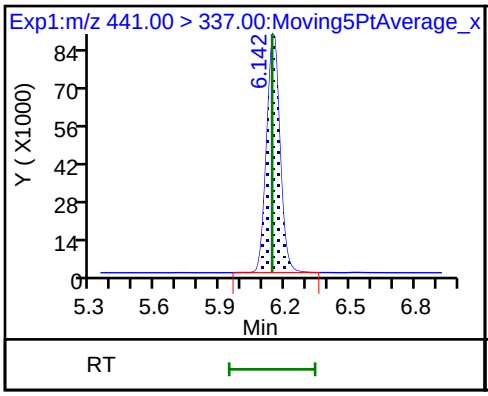
44 Perfluorononanoic acid



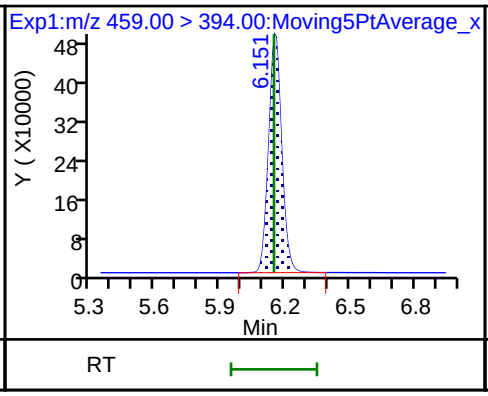
44 Perfluorononanoic acid



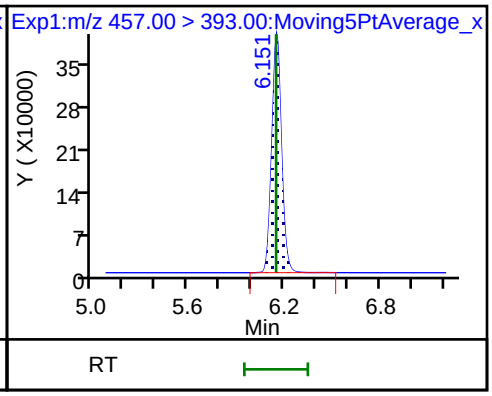
46 7:3 FTCA



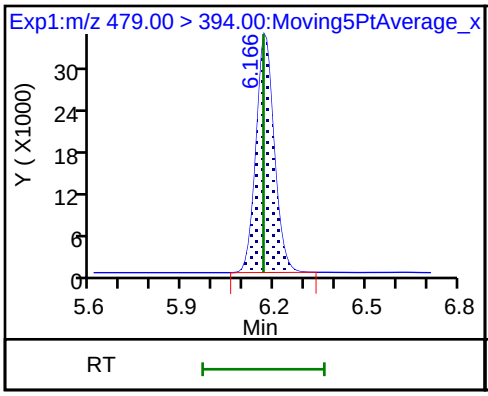
D 48 13C-8:2 FTUCA



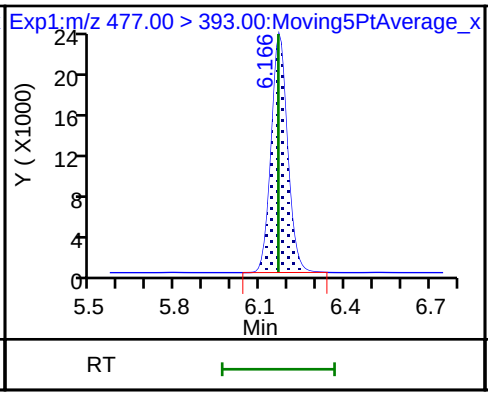
47 8:2 FTUCA



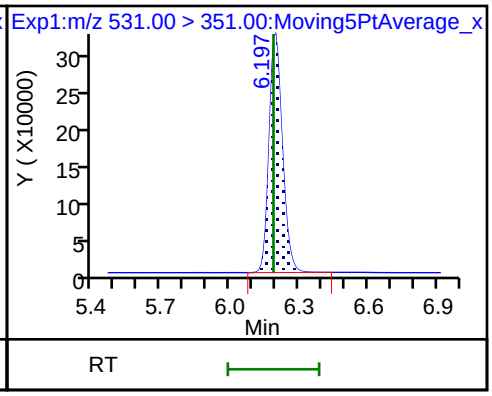
D 50 13C-8:2 FTCA



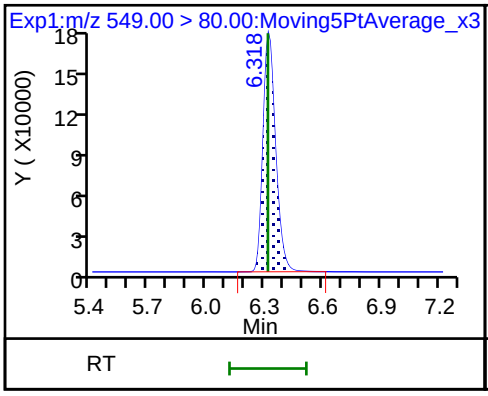
49 8:2 FTCA



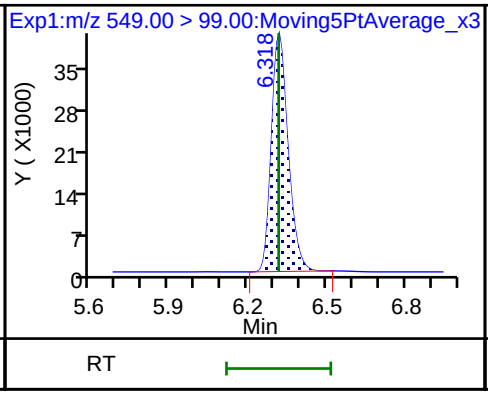
51 9ClFOS



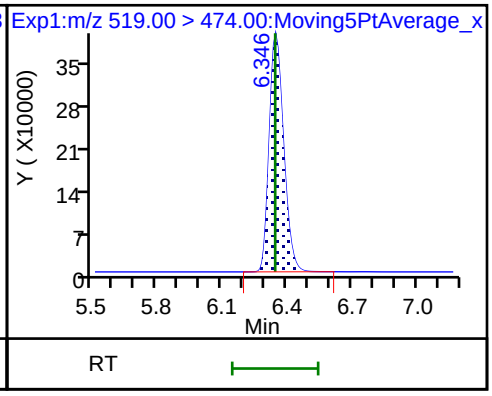
52 Perfluorononanesulfonic acid



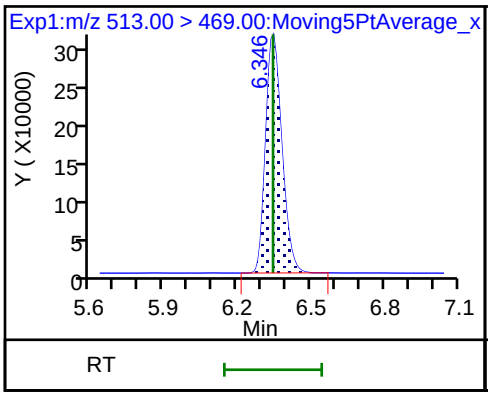
52 Perfluorononanesulfonic acid



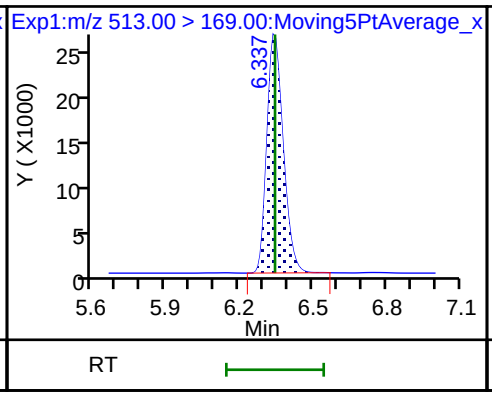
D 54 13C6 PFDA



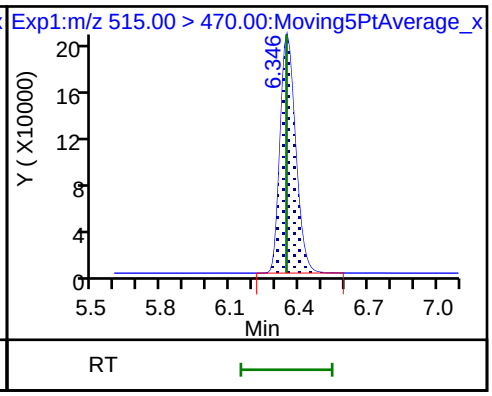
53 Perfluorodecanoic acid



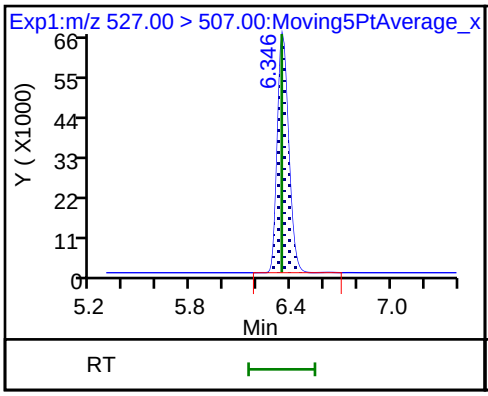
53 Perfluorodecanoic acid



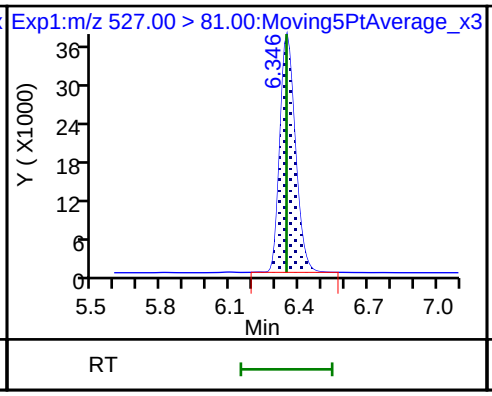
* 55 13C2 PFDA



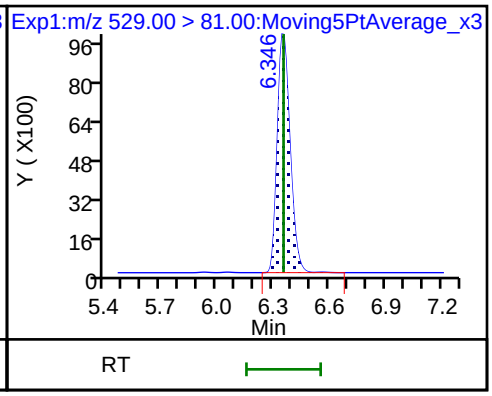
56 8:2 FTS



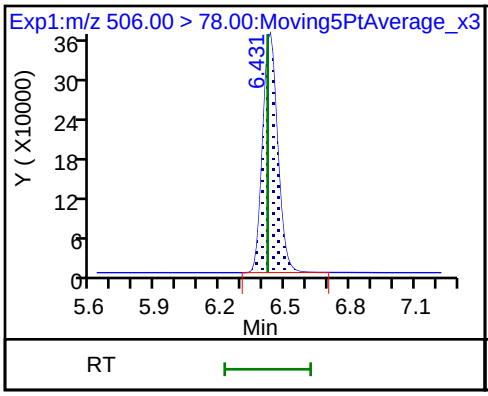
56 8:2 FTS



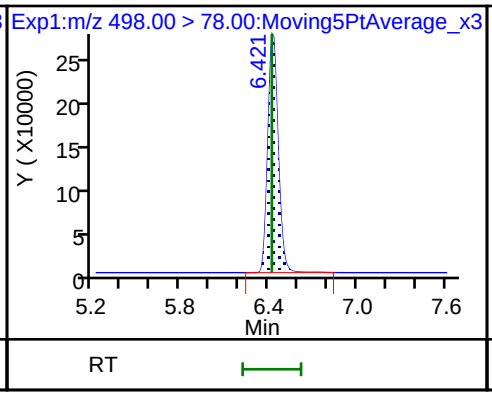
D 57 M2-8:2 FTS



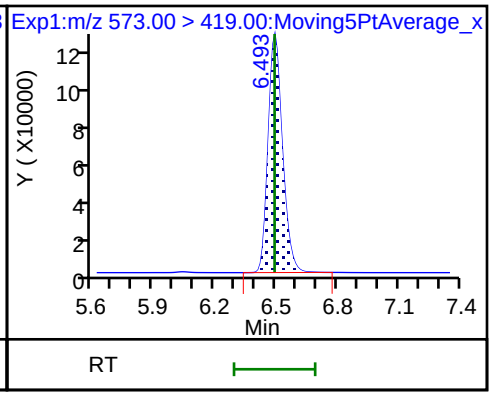
D 59 13C8 FOSA



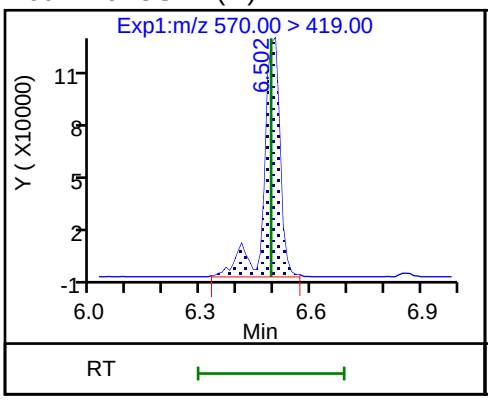
58 Perfluorooctanesulfonamide



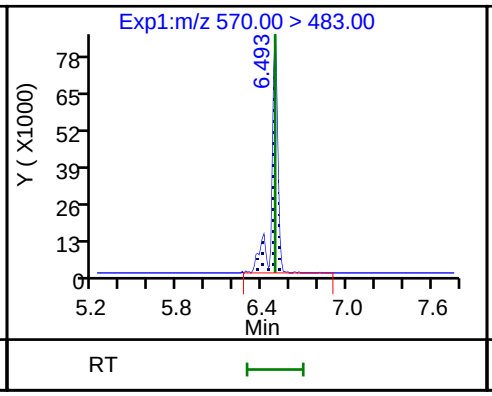
D 61 d3-NMeFOSAA



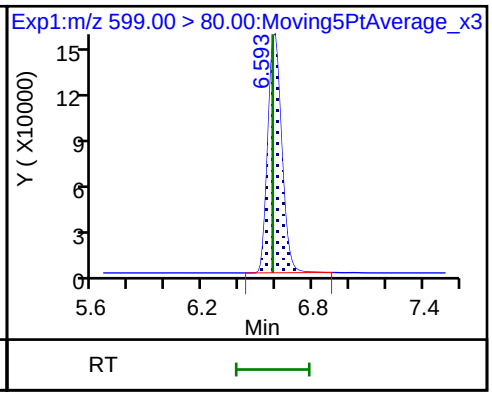
60 NMeFOSAA (M)



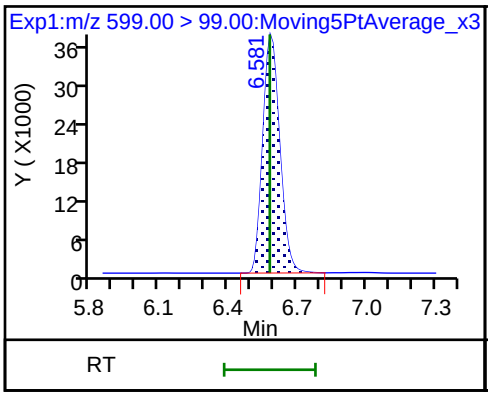
60 NMeFOSAA



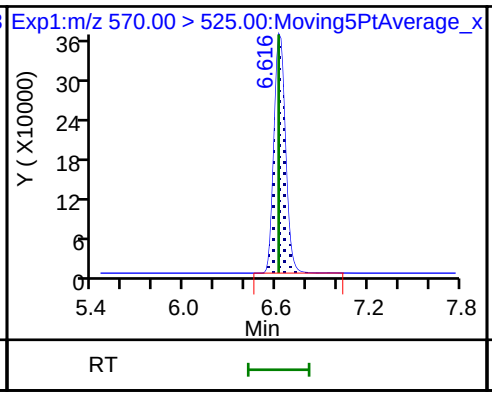
62 Perfluorodecanesulfonic acid



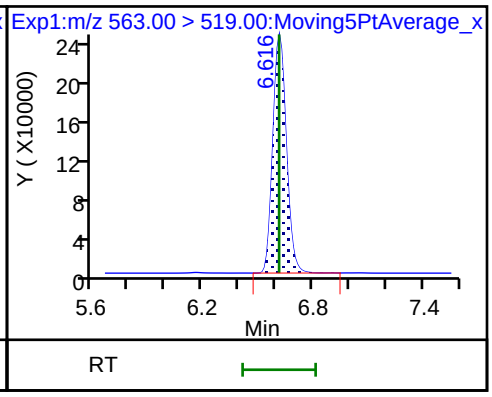
62 Perfluorodecanesulfonic acid



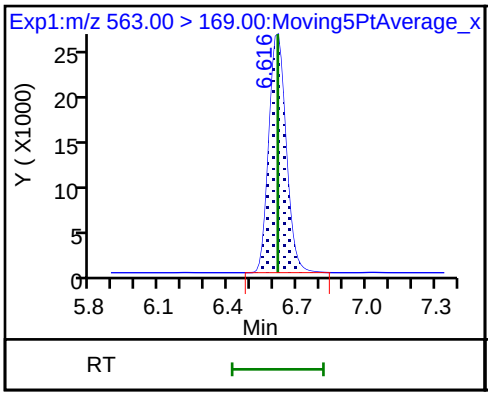
D 65 13C7 PFUnA



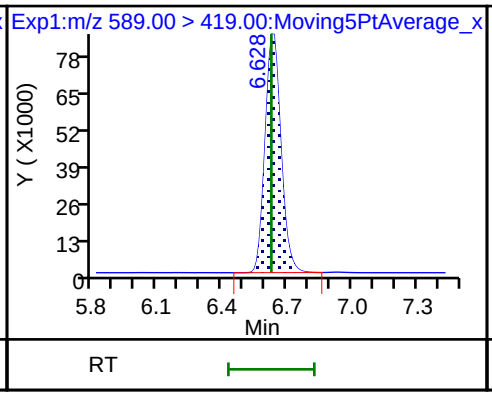
63 Perfluoroundecanoic acid



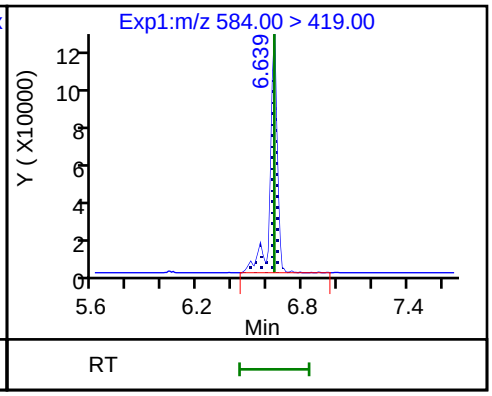
63 Perfluoroundecanoic acid



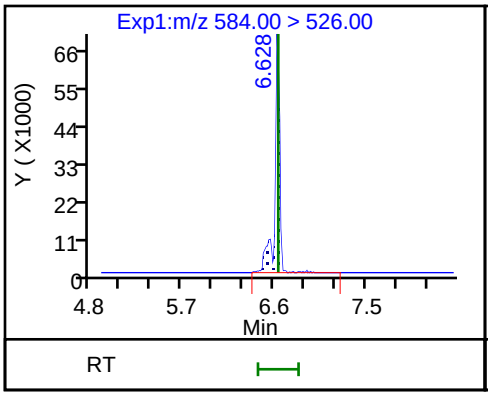
D 66 d5-NEtFOSAA



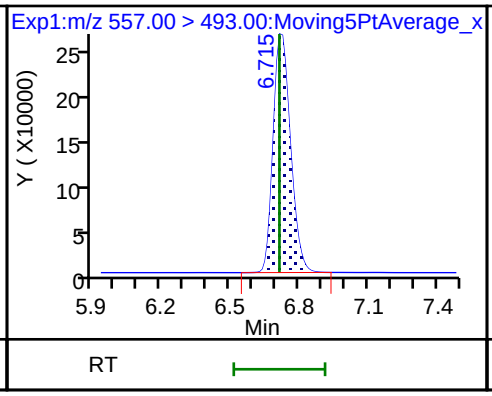
67 NEtFOSAA



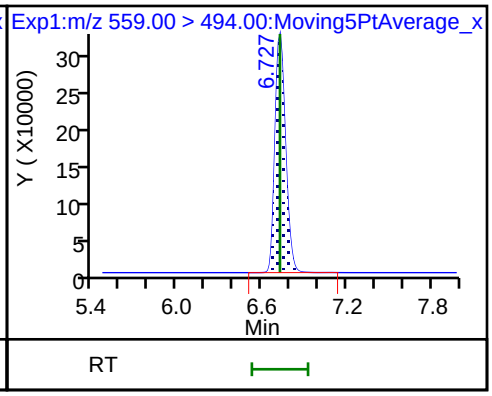
67 NEtFOSAA



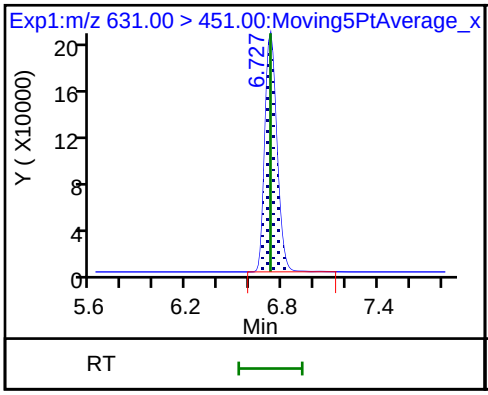
68 10:2 FTUCA



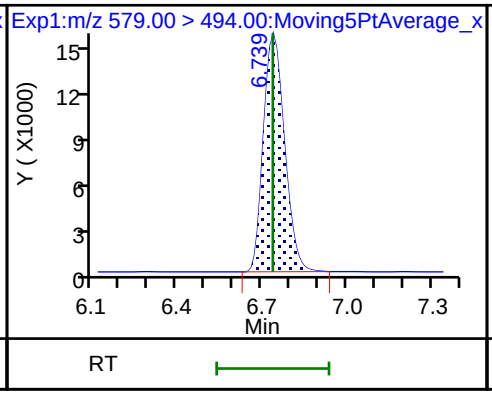
D 70 13C-10:2 FTUCA



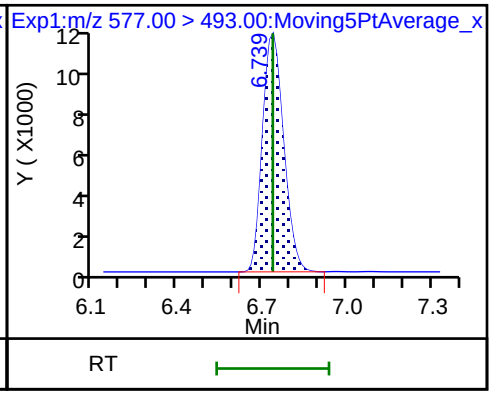
69 11ClFOS



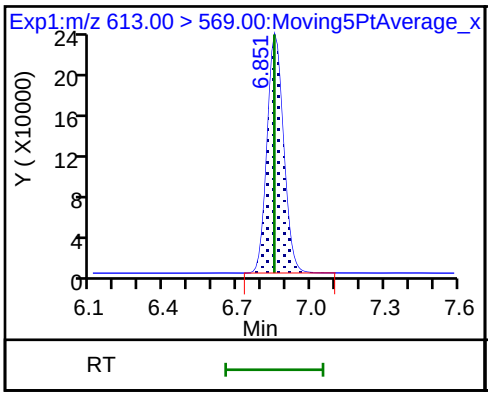
D 72 13C-10:2 FTCA



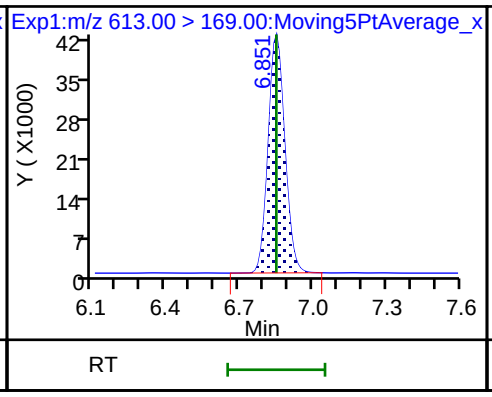
71 10:2 FTCA



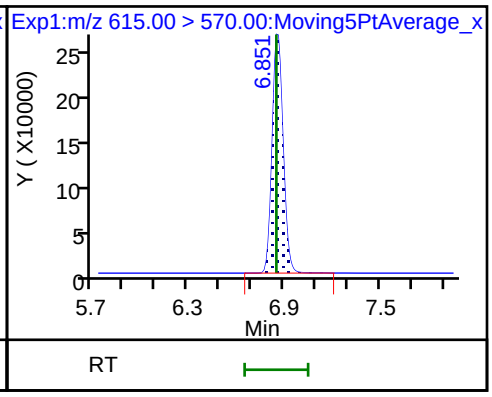
73 Perfluorododecanoic acid



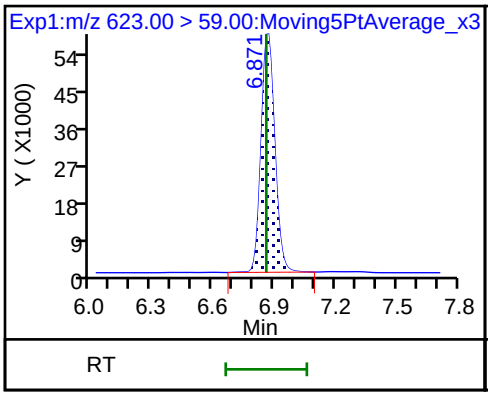
73 Perfluorododecanoic acid



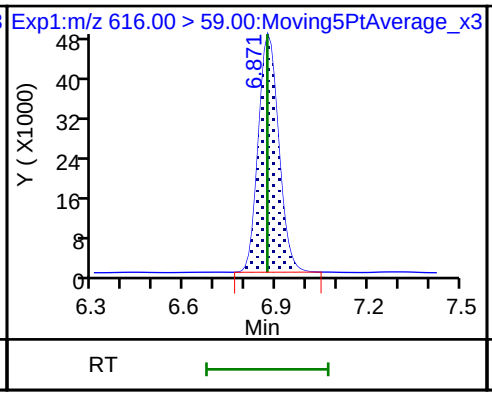
D 74 13C2-PFDoDA



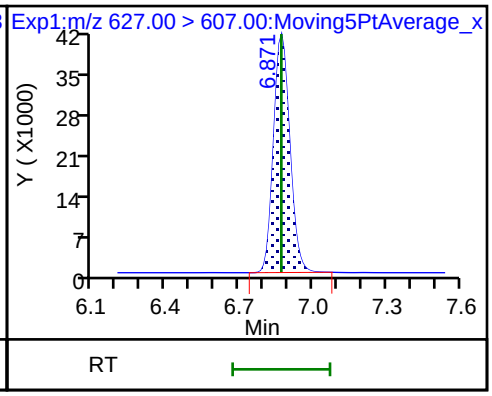
D 76 d7-N-MeFOSE-M



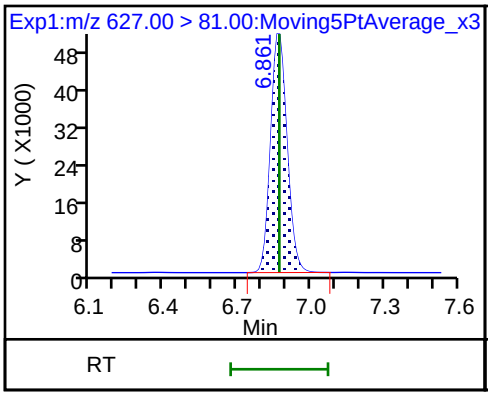
77 N-MeFOSE-M



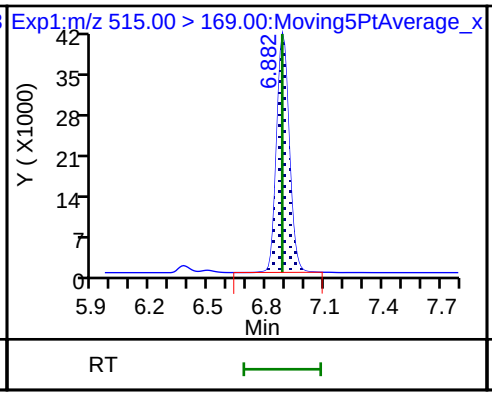
75 10:2 FTS



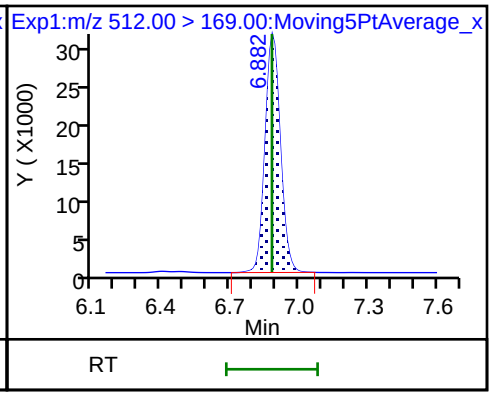
75 10:2 FTS



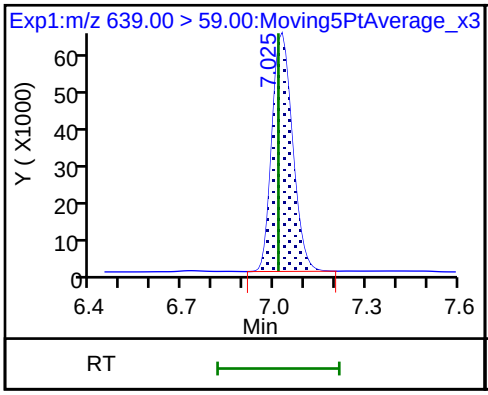
D 79 d3-NMePFOSA



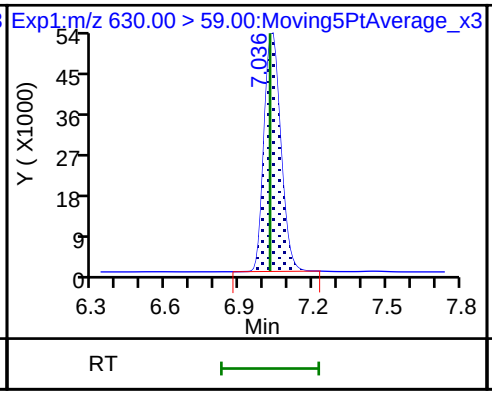
78 NMeFOSA



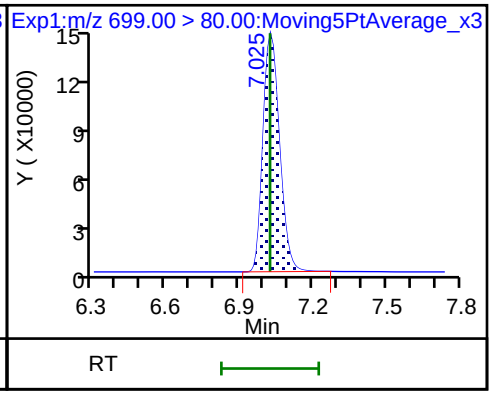
D 81 d9-N-EtFOSE-M



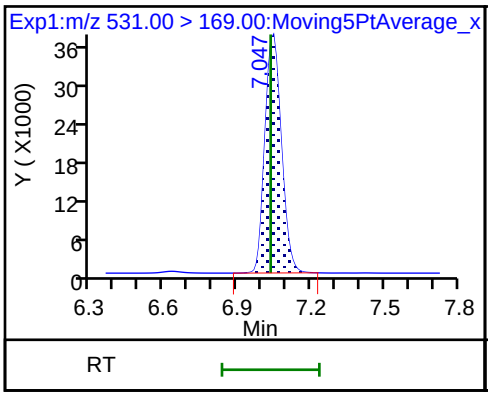
82 N-EtFOSE-M



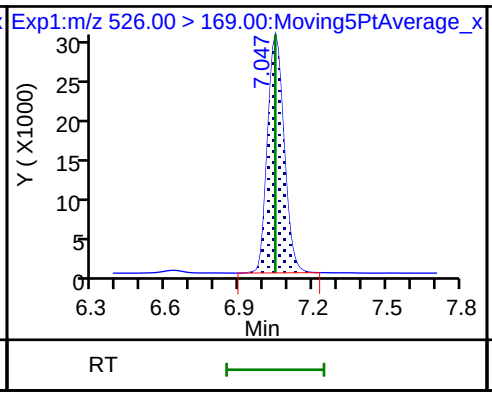
80 PFDoS



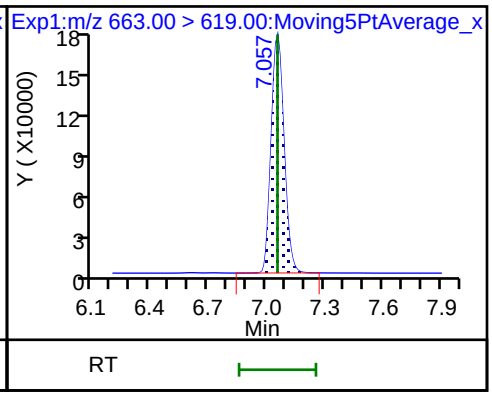
D 83 d5-NEtPFOSA



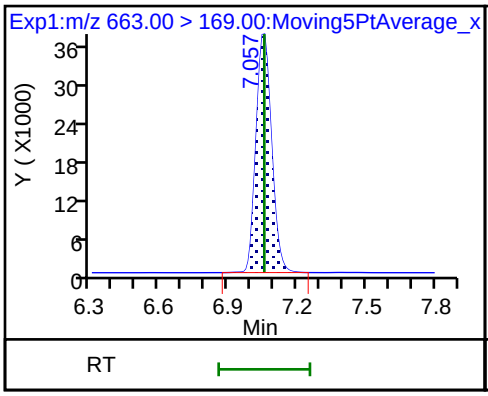
84 N-EtFOSA-M



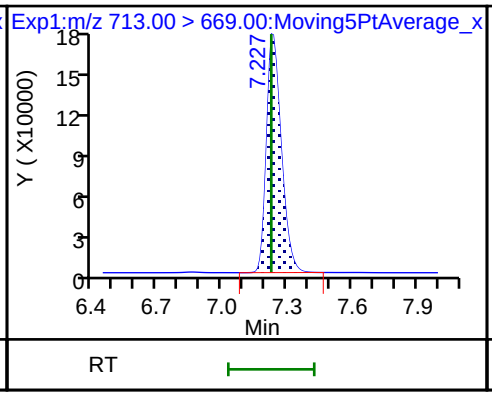
85 Perfluorotridecanoic acid



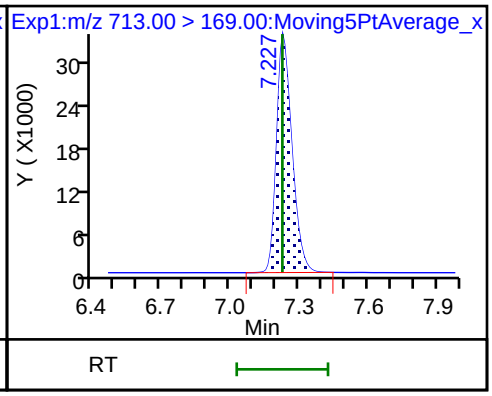
85 Perfluorotridecanoic acid



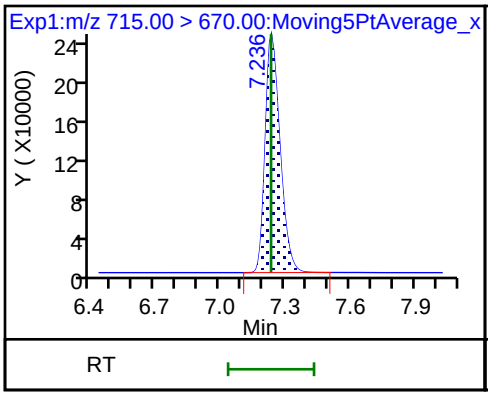
86 Perfluorotetradecanoic acid



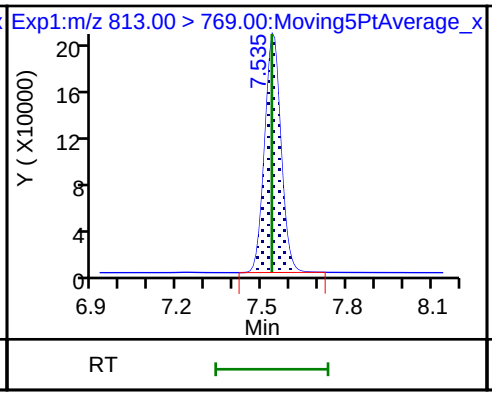
86 Perfluorotetradecanoic acid



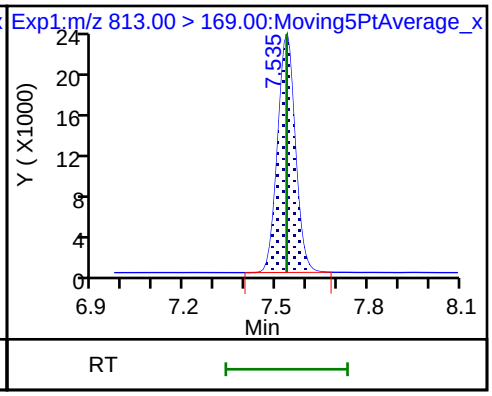
D 87 13C2 PFTeDA



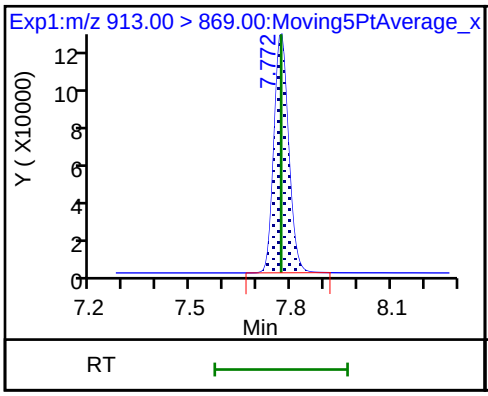
88 Perfluorohexadecanoic acid



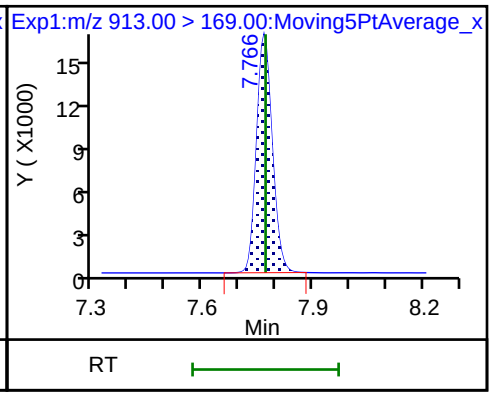
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

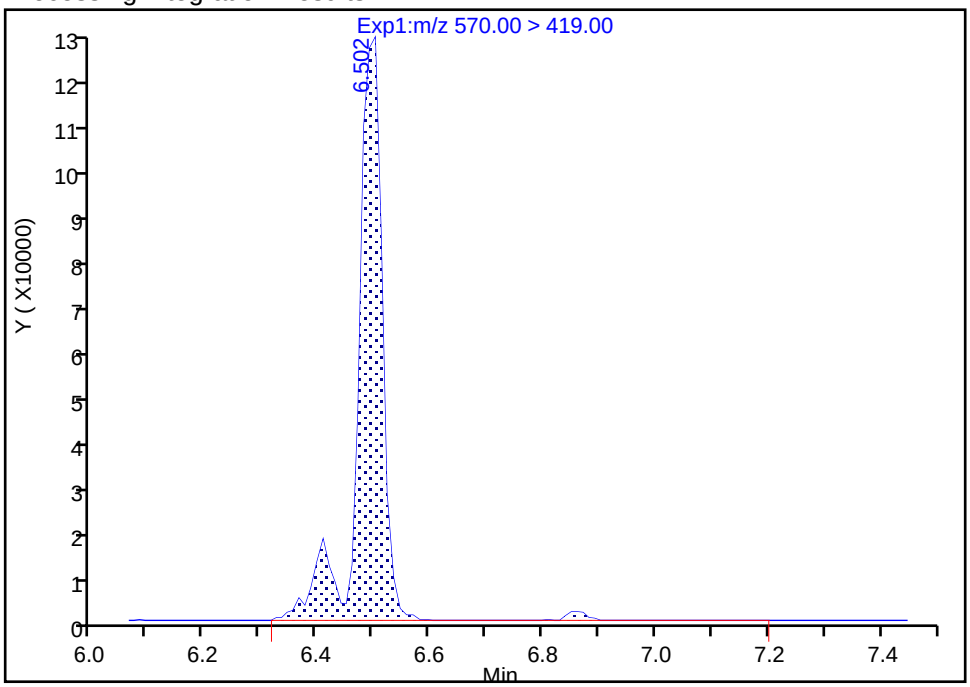
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-73.d				
Injection Date:	23-Feb-2022 11:05:36	Instrument ID:	30733		
Lims ID:	CCV 9_CAL4				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	20005	Worklist Smp#:	69
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

60 NMeFOSAA, CAS: 2355-31-9

Signal: 1

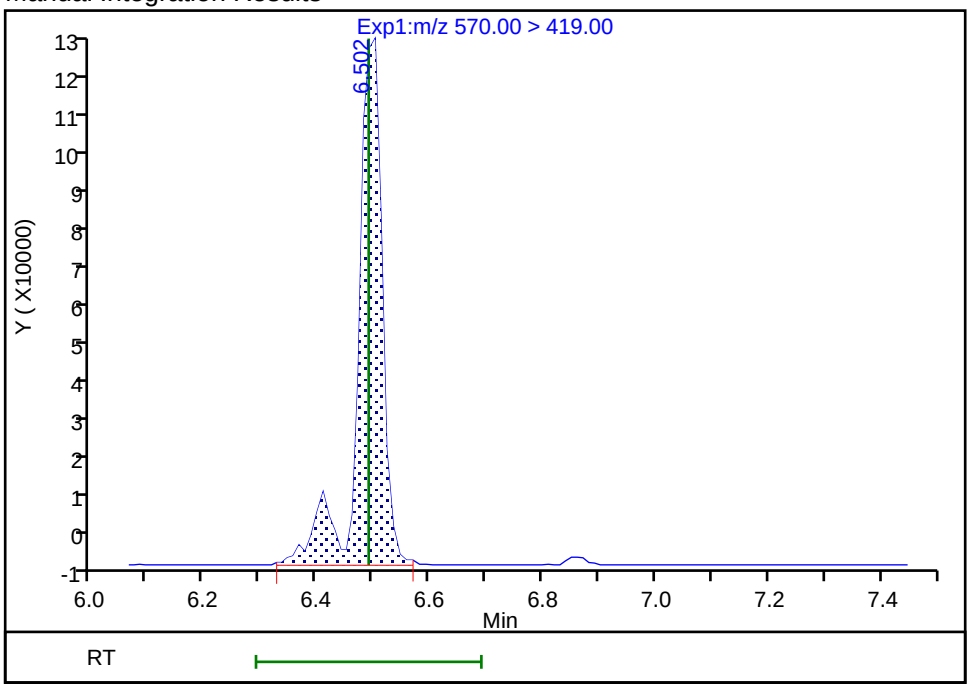
Processing Integration Results

RT: 6.50
Area: 388759
Amount: 7.526199
Amount Units: ng/ml



Manual Integration Results

RT: 6.50
Area: 384734
Amount: 7.448277
Amount Units: ng/ml



Reviewer: kruelleh, 23-Feb-2022 11:41:19

Audit Action: Manually Integrated Audit Reason: Isomers

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-10.d
Lims ID: WDM
Client ID:
Sample Type: WDM
Inject. Date: 01-Mar-2022 22:55:10 ALS Bottle#: 20010 Worklist Smp#: 10
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: WDM
Misc. Info.: Plate: 1 Rack: 1 410-0051412-010
Operator ID: US19_USR_INS20261 Instrument ID: 30728

Method: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 08:39:07 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 6 13C4 PFBA										
217.00 > 172.00	3.808	3.808	0.0	0.998	8464173	10.5		105	248083	
* 8 13C3-PFBA										
216.00 > 172.00	3.815	3.817	-0.002		3728626	5.00			13454	
D 17 13C5 PFPeA										
268.00 > 223.00	4.405	4.405	0.0	1.155	6941123	10.6		106	160854	
D 19 13C3 PFBS										
302.00 > 80.00	4.454	4.454	0.0	1.168	6264766	9.49		101	326604	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.805	4.805	0.0	0.854	1151554	11.4		123	59008	
D 27 13C5 PFHxA										
318.00 > 273.00	4.845	4.845	0.0	0.861	9134865	11.0		110	353680	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.977	4.977	0.0	0.884	2635628	13.6		136	175972	
D 37 13C3 PFHxS										
402.00 > 80.00	5.254	5.254	0.0	0.933	5989090	10.2		108	277289	
D 38 13C4 PFHpA										
367.00 > 322.00	5.254	5.254	0.0	0.933	9671831	10.9		109	178423	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.359	5.359	0.0	0.952	7264112	14.9		149	179185	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.378	5.378	0.0	0.955	581769	7.60		76.0	39212	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.612	5.612	0.0	0.997	421872	11.7		123	28941	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.630	5.630	0.0	1.000	1083291	1.55	Target=2.20		111737	
413.00 > 169.00	5.621	5.630	-0.009	0.998	496367		2.18(1.10-3.30)		68146	
* 55 13C2 PFOA										
415.00 > 370.00	5.630	5.631	-0.001		3564592	5.00			182672	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 54 13C8 PFOA										
421.00 > 376.00	5.630	5.630	0.0	1.000	9386295	10.8		108	471192	
* 59 13C4 PFOS										
503.00 > 80.00	5.957	5.955	0.001		3060537	4.78			162434	
D 58 13C8 PFOS										
507.00 > 80.00	5.957	5.957	0.0	1.000	6302011	10.2		106	73751	
D 60 13C9 PFNA										
472.00 > 427.00	5.974	5.974	0.0	1.003	6612955	10.9		109	278465	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.084	6.084	0.0	0.969	7590105	15.7		157	308052	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.104	6.104	0.0	0.972	451382	8.31		83.1	30306	
* 70 13C2 PFDA										
515.00 > 470.00	6.281	6.282	-0.001		3960145	5.00			285312	
D 71 13C6 PFDA										
519.00 > 474.00	6.281	6.281	0.0	1.000	7855977	10.4		104	424175	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.281	6.281	0.0	1.000	229953	11.7		122	16652	
D 74 13C8 FOSA										
506.00 > 78.00	6.374	6.374	0.0	1.015	12833633	13.2		132	626323	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.426	6.426	0.0	1.023	2350032	11.1		111	92246	
D 80 13C7 PFUnA										
570.00 > 525.00	6.551	6.551	0.0	1.043	8612022	10.8		108	222927	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.562	6.562	0.0	1.045	1672086	11.0		110	59814	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.654	6.654	0.0	1.059	5935129	14.0		140	221587	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.665	6.665	0.0	1.061	306524	7.75		77.5	18716	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.791	6.791	0.0	1.081	6572035	10.8		108	402768	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.813	6.813	0.0	1.085	1896994	11.9		119	14970	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.834	6.834	0.0	1.088	1184016	11.7		117	20373	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.971	6.971	0.0	1.110	2139784	11.9		119	34132	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.990	6.990	0.0	1.113	1183864	12.6		126	26908	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.179	7.179	0.0	1.143	5014769	10.2		102	174097	

Reagents:

PFC_LB_MOD_00028 Amount Added: 200.00 Units: uL

Report Date: 02-Mar-2022 08:39:08 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-10.d

Injection Date: 01-Mar-2022 22:55:10 Instrument ID: 30728

Lims ID: WDM

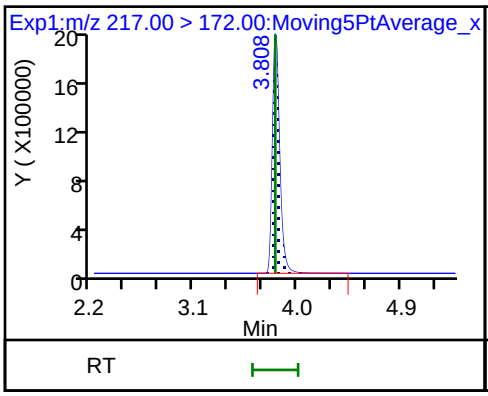
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20010 Worklist Smp#: 10

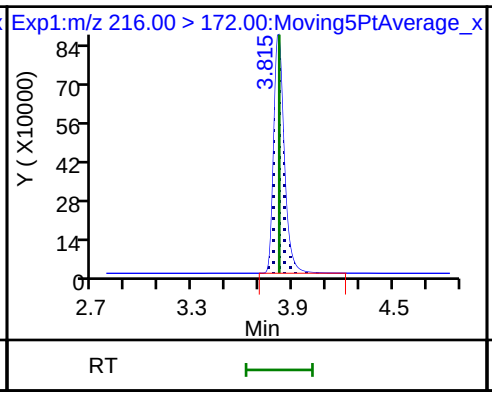
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

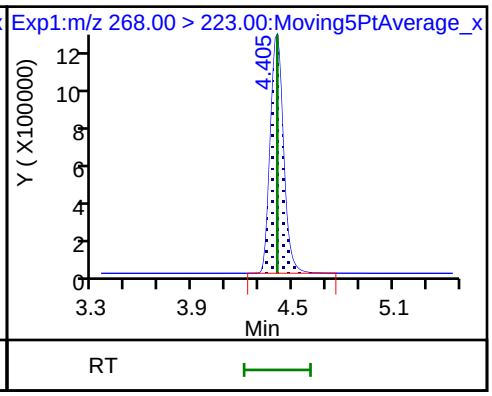
D 6 13C4 PFBA



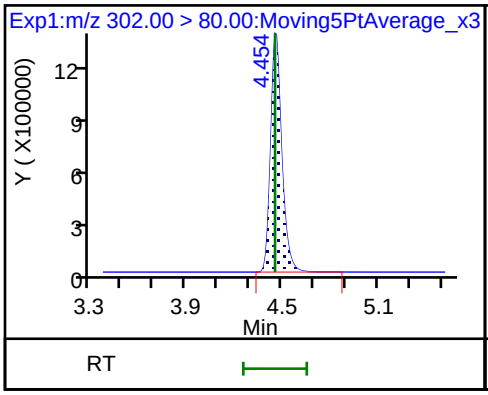
* 8 13C3-PFBA



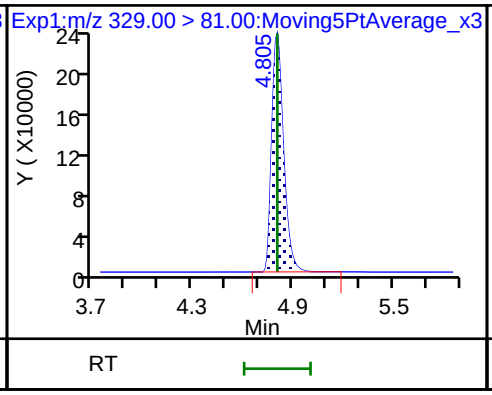
D 17 13C5 PFPeA



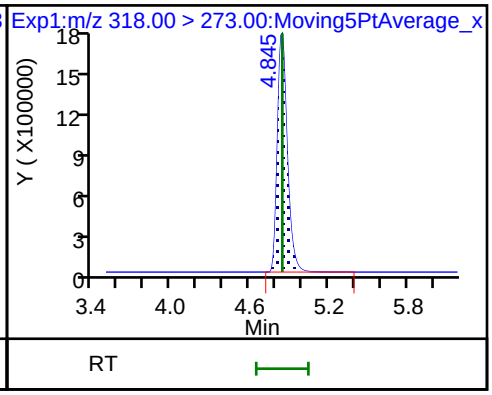
D 19 13C3 PFBS



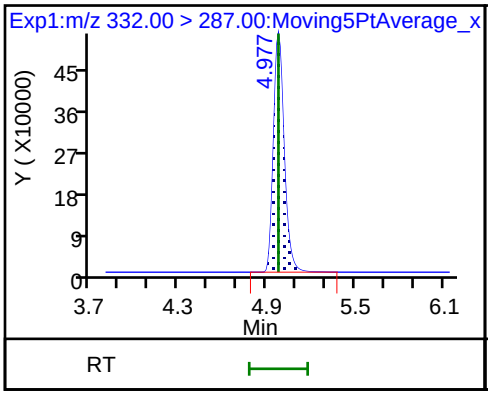
D 25 M2-4:2 FTS



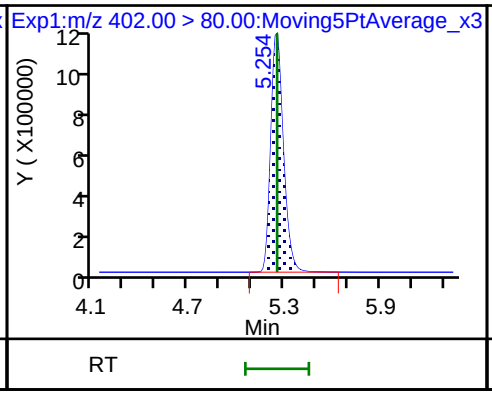
D 27 13C5 PFHxA



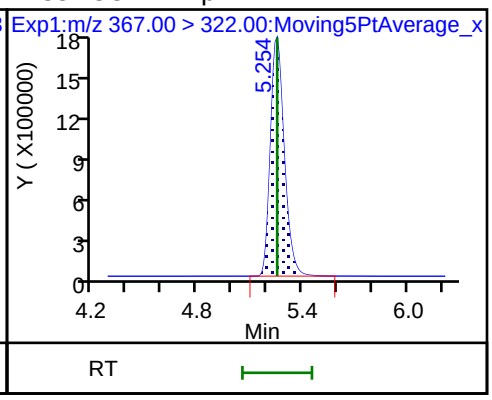
D 31 13C3 HFPO-DA



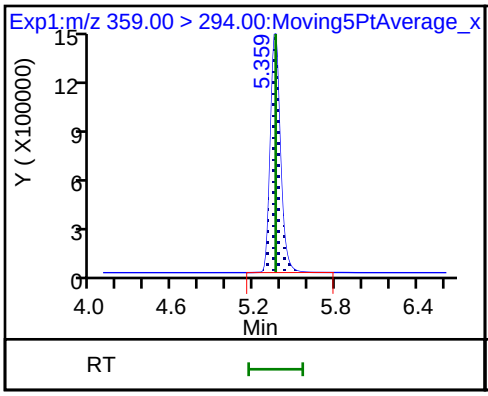
D 37 13C3 PFHxS



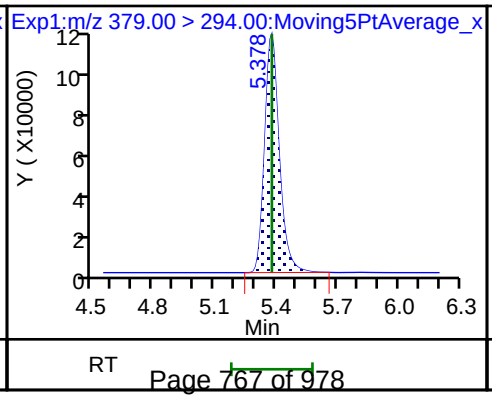
D 38 13C4 PFHpA



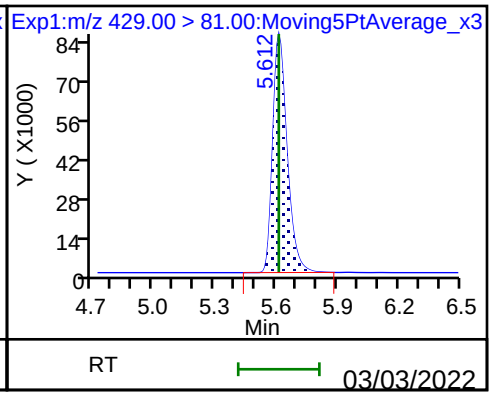
D 43 13C-6:2 FTUCA



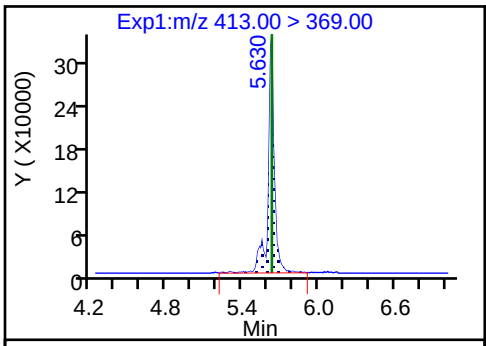
D 45 13C-6:2 FTCA



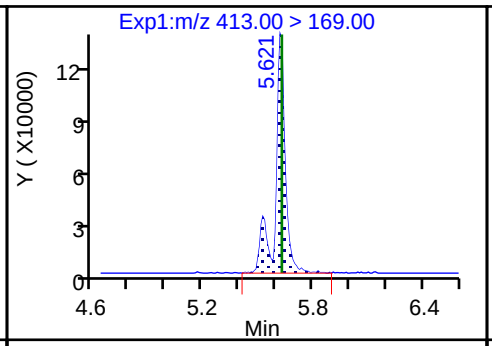
D 52 M2-6:2 FTS



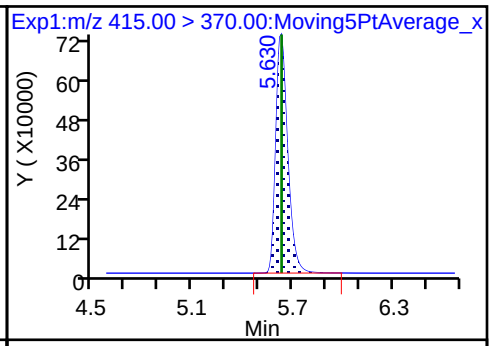
53 Perfluorooctanoic acid



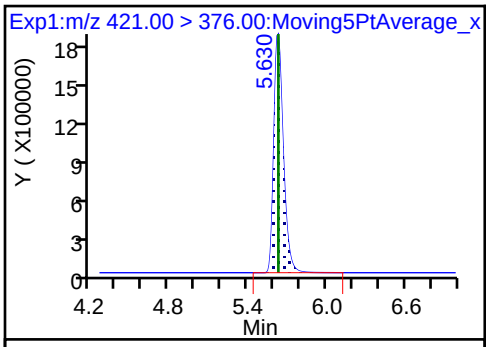
53 Perfluorooctanoic acid



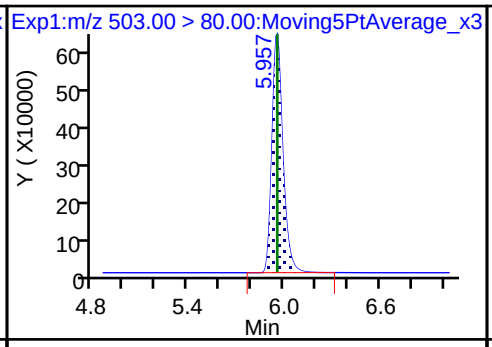
* 55 13C2 PFOA



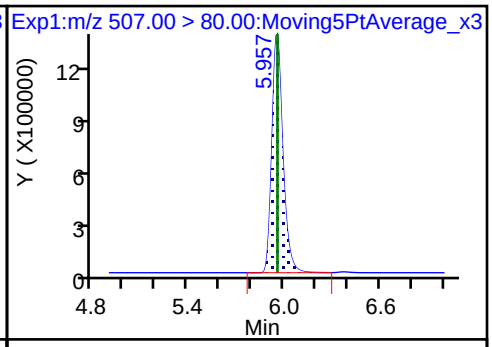
D 54 13C8 PFOA



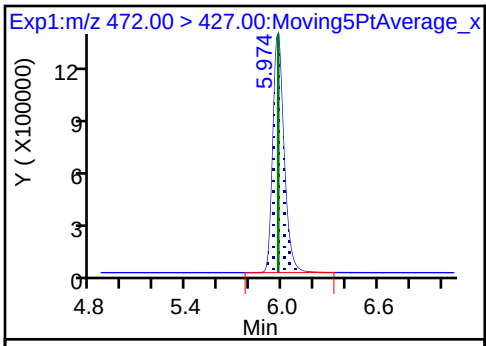
* 59 13C4 PFOS



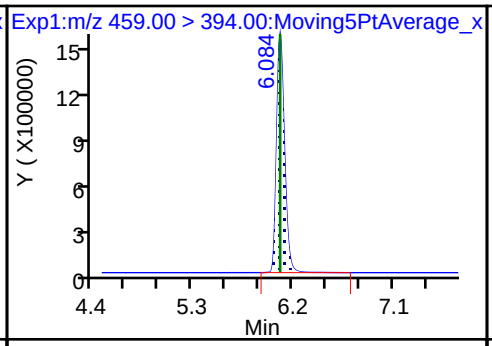
D 58 13C8 PFOS



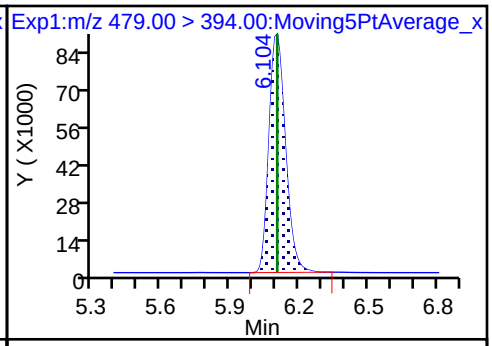
D 60 13C9 PFNA



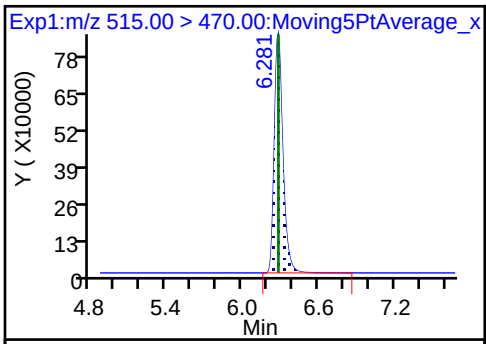
D 64 13C-8:2 FTUCA



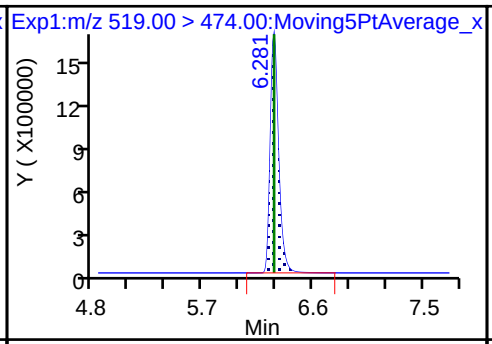
D 66 13C-8:2 FTCA



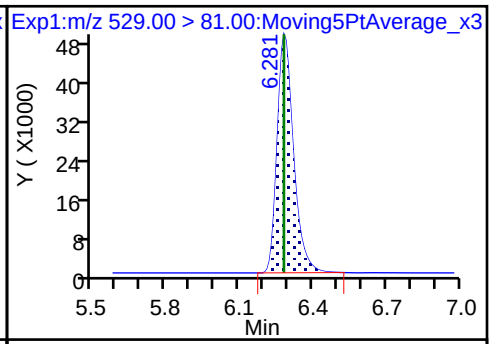
* 70 13C2 PFDA



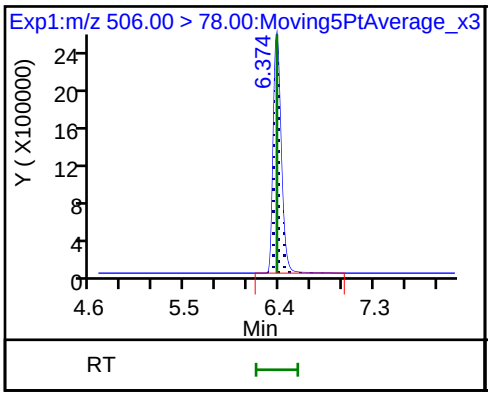
D 71 13C6 PFDA



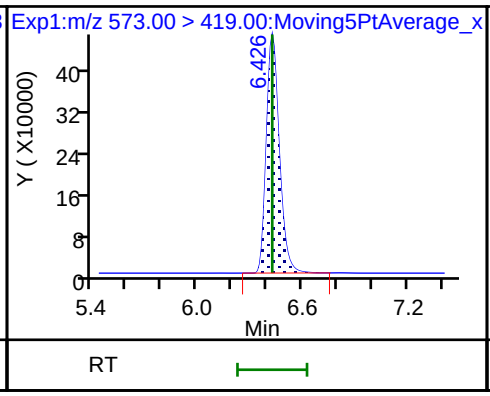
D 73 M2-8:2 FTS



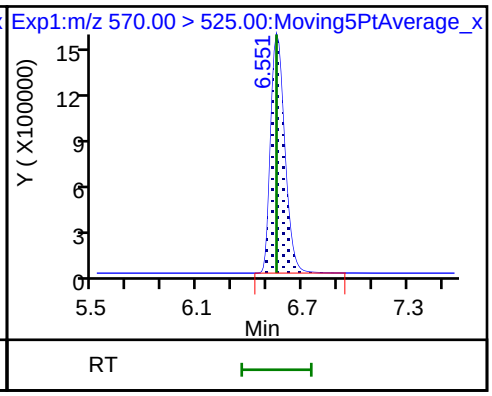
D 74 13C8 FOSA



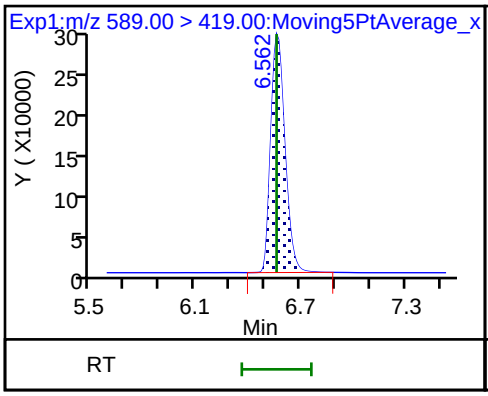
D 77 d3-NMeFOSAA



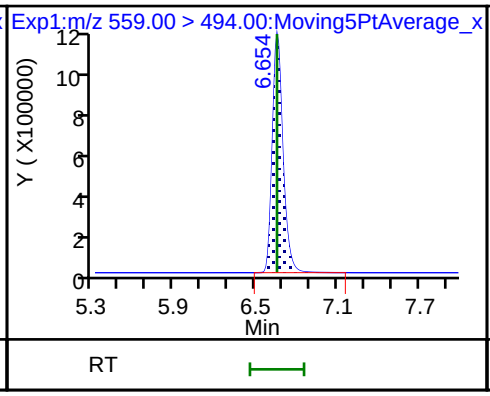
D 80 13C7 PFUnA



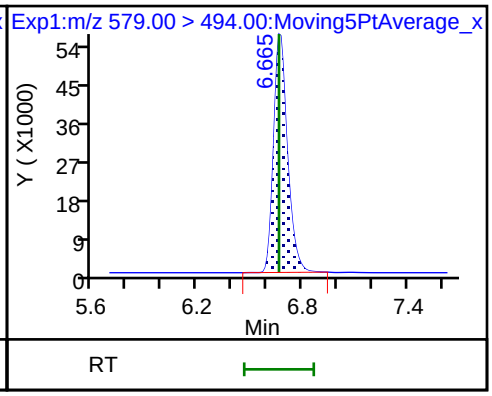
D 81 d5-NEtFOSAA



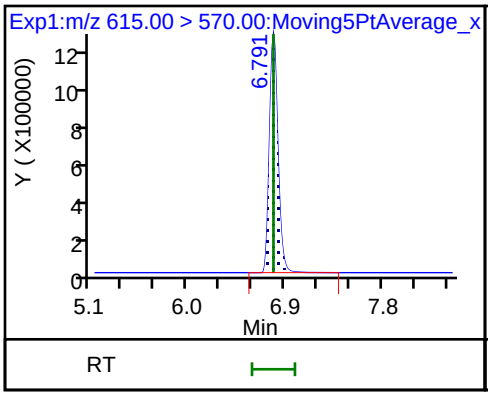
D 85 13C-10:2 FTUCA



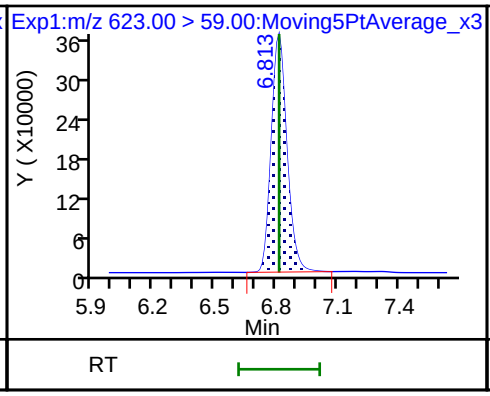
D 87 13C-10:2 FTCA



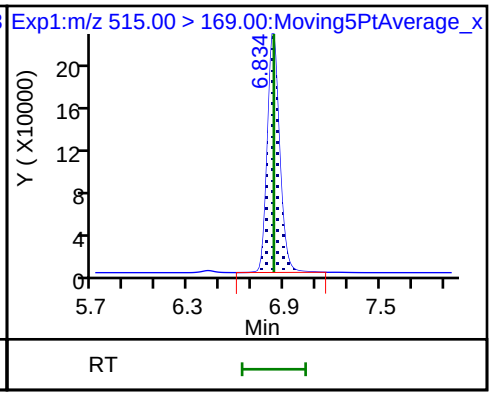
D 89 13C2-PFDoDA



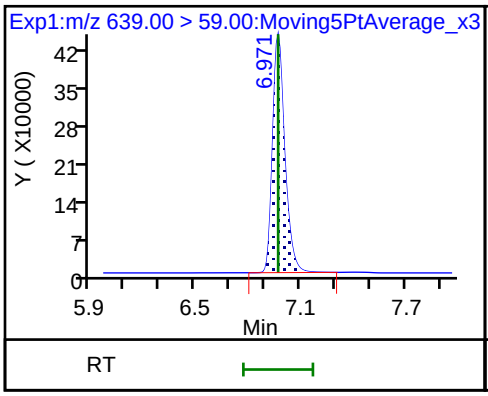
D 91 d7-N-MeFOSE-M



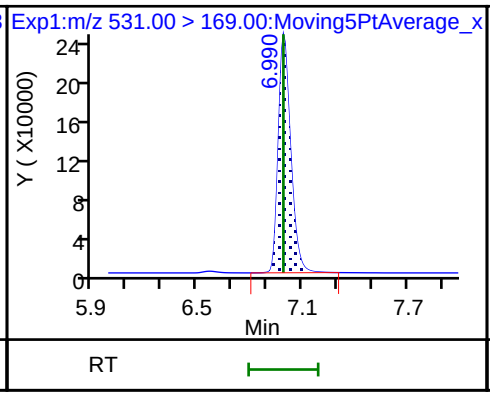
D 93 d3-NMePFOSA



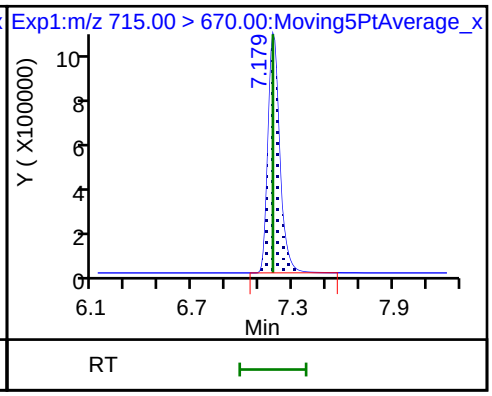
D 96 d9-N-EtFOSE-M



D 98 d5-NEtPFOSA



D 102 13C2 PFTeDA



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-10.d
Lims ID: WDM
Client ID:
Sample Type: WDM
Inject. Date: 22-Feb-2022 16:51:57 ALS Bottle#: 20010 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: WDM
Misc. Info.: Plate: 1 Rack: 1 410-0050930-010
Operator ID: US19_USR_INS20260 Instrument ID: 30733

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 10:03:29 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1604

First Level Reviewer: fellenbauma Date: 22-Feb-2022 19:47:00
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 3 13C4 PFBA										
217.00 > 172.00	3.980	3.980	0.0	1.000	2132106	10.4		104	121423	
* 4 13C3-PFBA										
216.00 > 172.00	3.980	3.979	0.001		923525	5.00			2785	
D 8 13C5 PFPeA										
268.00 > 223.00	4.523	4.523	0.0	1.136	1860504	10.5		105	104073	
D 11 13C3 PFBS										
302.00 > 80.00	4.581	4.581	0.0	1.151	1400776	9.97		107	81627	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.908	4.908	0.0	0.860	298411	10.8		116	21651	
D 19 13C5 PFHxA										
318.00 > 273.00	4.950	4.950	0.0	0.867	2246511	10.5		105	118968	
$ 18 13C2 PFHxA										
315.00 > 270.00	4.950	4.948	0.002	0.867	1753740	NC			93597	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.071	5.071	0.0	0.889	349859	11.1		111	26840	
D 25 13C3 PFHxS										
402.00 > 80.00	5.337	5.337	0.0	0.935	1344126	10.2		107	73694	
D 24 13C4 PFHpA										
367.00 > 322.00	5.337	5.337	0.0	0.935	2635147	11.1		111	192548	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.441	5.441	0.0	0.954	2314949	11.2		112	137566	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.458	5.458	0.0	0.957	203526	10.8		108	16028	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.687	5.687	0.0	0.997	121314	10.7		112	8903	
* 38 13C2 PFOA										
415.00 > 370.00	5.706	5.704	0.002		990597	5.00			72634	

Report Date: 23-Feb-2022 10:03:30 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-10.d
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 37 13C8 PFOA										
421.00 > 376.00	5.706	5.706	0.0	1.000	2761627	10.5		105	121786	
$ 39 13C4 PFOA										
417.00 > 372.00	5.706	5.704	0.002	1.000	2559874	NC			112912	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.706	5.704	0.002	1.000	306108	1.45	Target=2.48		55702	
413.00 > 169.00	5.696	5.704	-0.008	0.998	126558		2.42(1.24-3.72)		215	
D 41 13C8 PFOS										
507.00 > 80.00	6.025	6.025	0.0	1.000	1389540	10.4		108	45292	
* 42 13C4 PFOS										
503.00 > 80.00	6.025	6.023	0.002		635156	4.78			36260	
D 45 13C9 PFNA										
472.00 > 427.00	6.043	6.043	0.0	1.003	2510624	11.3		113	113847	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.156	6.156	0.0	0.970	3010495	10.3		103	242491	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.171	6.171	0.0	0.973	198121	10.2		102	16483	
D 54 13C6 PFDA										
519.00 > 474.00	6.344	6.344	0.0	1.000	2707185	10.3		103	192587	
* 55 13C2 PFDA										
515.00 > 470.00	6.344	6.346	-0.002		1319885	5.00			70173	
D 57 M2-8:2 FTS										
529.00 > 81.00	6.354	6.354	0.0	1.002	68898	9.62		100	4916	
D 59 13C8 FOSA										
506.00 > 78.00	6.428	6.428	0.0	1.013	2512175	10.1		101	131055	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.490	6.490	0.0	1.023	850591	9.60		96.0	43646	
D 65 13C7 PFUnA										
570.00 > 525.00	6.626	6.626	0.0	1.044	2666431	10.4		104	105393	
$ 64 13C2 PFUnA										
565.00 > 520.00	6.626	6.623	0.003	1.161	2353298	NC			154953	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.637	6.637	0.0	1.046	640511	10.3		103	42225	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.725	6.725	0.0	1.060	2204673	10.0		100	141614	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.737	6.737	0.0	1.062	114794	10.5		105	7322	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.859	6.859	0.0	1.081	1935199	10.2		102	84555	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.870	6.870	0.0	1.083	393792	10.0		100	10551	
D 79 d3-NMePFOSA										
515.00 > 169.00	6.880	6.880	0.0	1.085	258444	10.2		102	4756	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.023	7.023	0.0	1.107	475491	10.6		106	17211	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.045	7.045	0.0	1.111	254799	10.5		105	10957	

Report Date: 23-Feb-2022 10:03:30 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-10.d
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 87 13C2 PFTeDA										
715.00 > 670.00	7.234	7.234	0.0	1.140	1506257	9.42		94.2	62805	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

PFC_LB_MOD_00028 Amount Added: 200.00 Units: uL

Report Date: 23-Feb-2022 10:03:30 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-10.d

Injection Date: 22-Feb-2022 16:51:57 Instrument ID: 30733

Lims ID: WDM

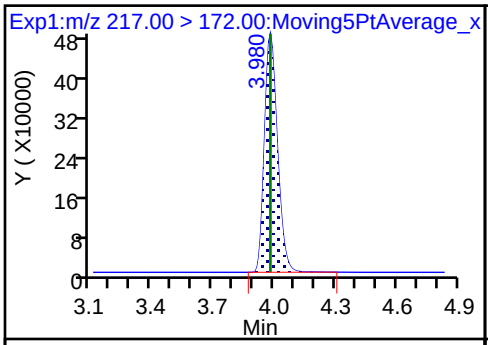
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20010 Worklist Smp#: 10

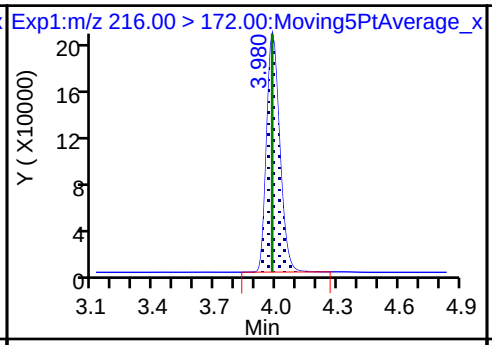
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

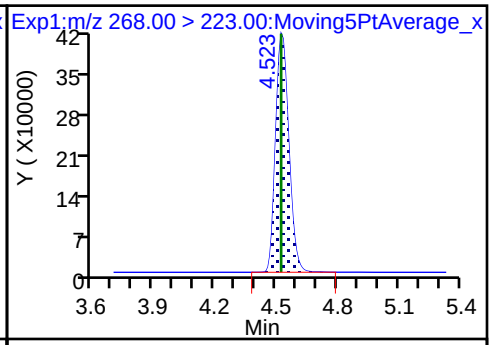
D 3 13C4 PFBA



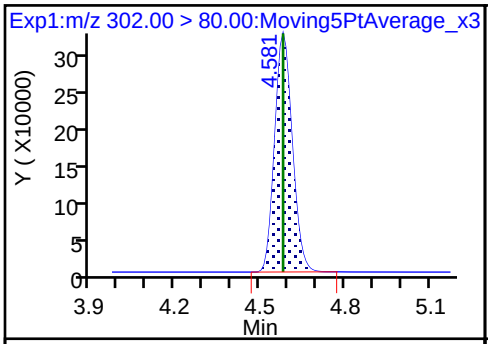
* 4 13C3-PFBA



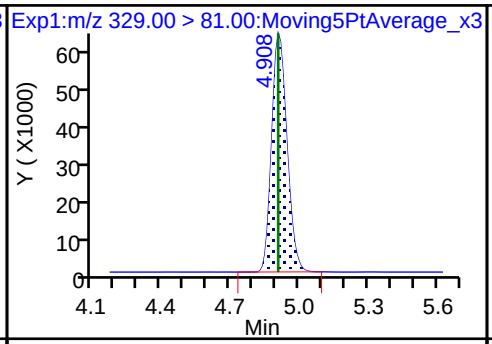
D 8 13C5 PFPeA



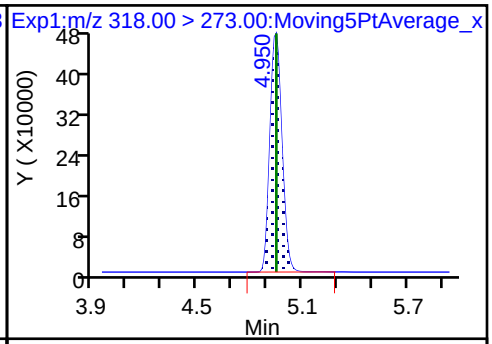
D 11 13C3 PFBS



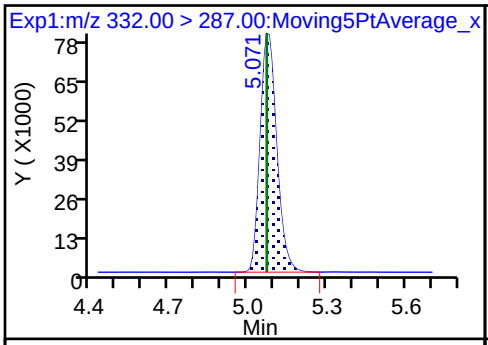
D 16 M2-4:2 FTS



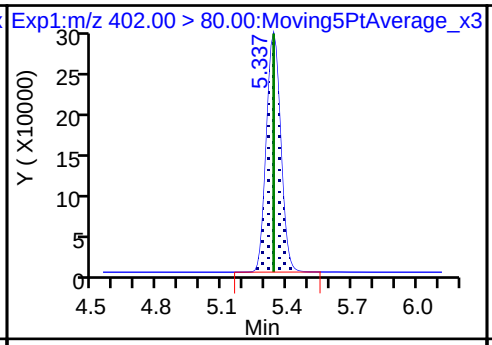
D 19 13C5 PFHxA



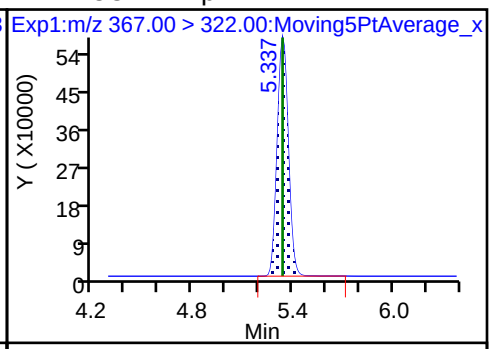
D 22 13C3 HFPO-DA



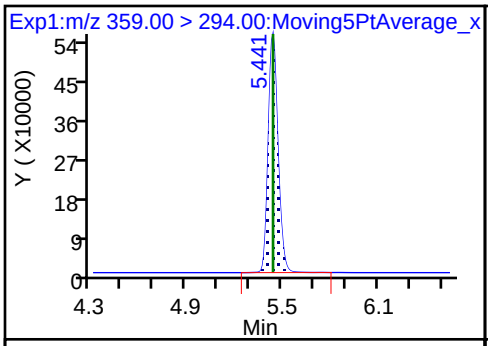
D 25 13C3 PFHxS



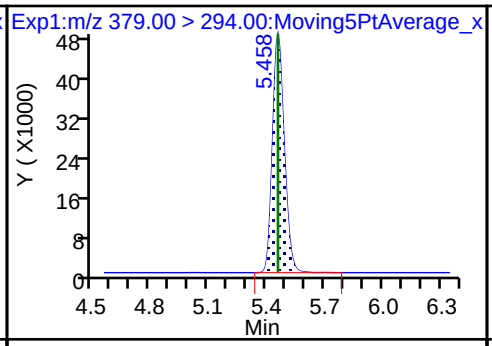
D 24 13C4 PFHpA



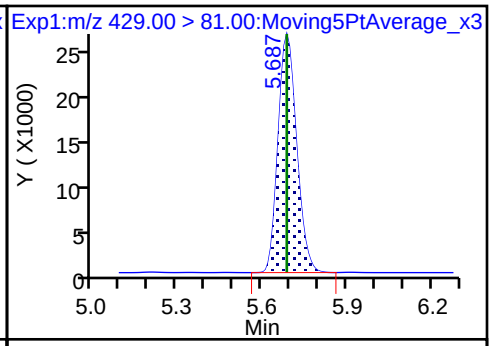
D 30 13C-6:2 FTUCA



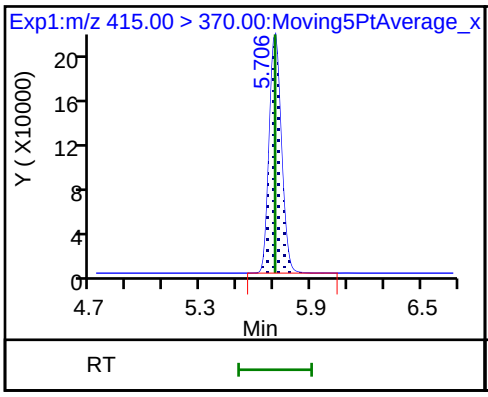
D 31 13C-6:2 FTCA



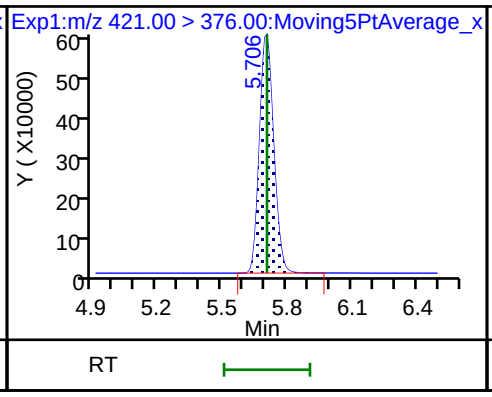
D 35 M2-6:2 FTS



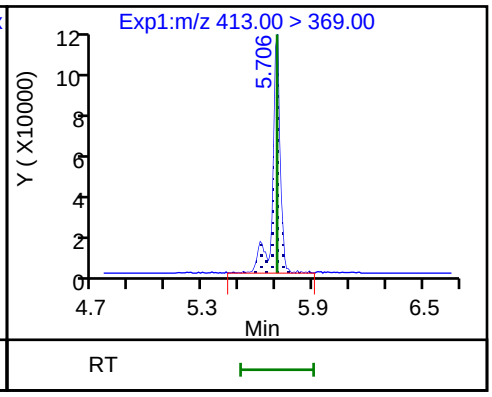
* 38 13C2 PFOA



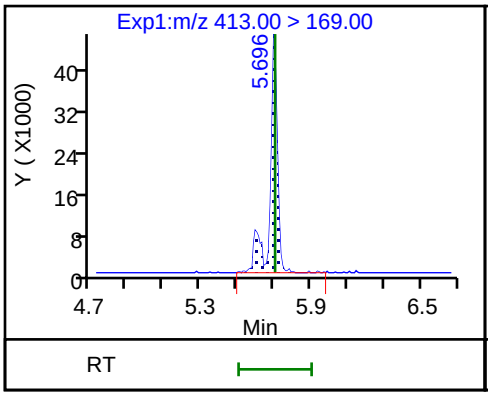
D 37 13C8 PFOA



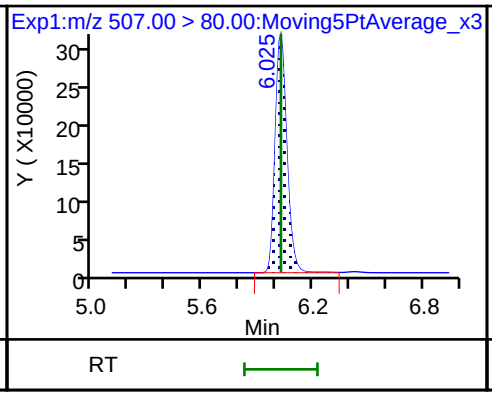
40 Perfluorooctanoic acid



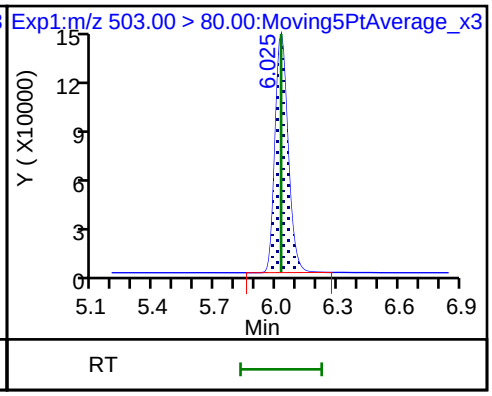
40 Perfluorooctanoic acid



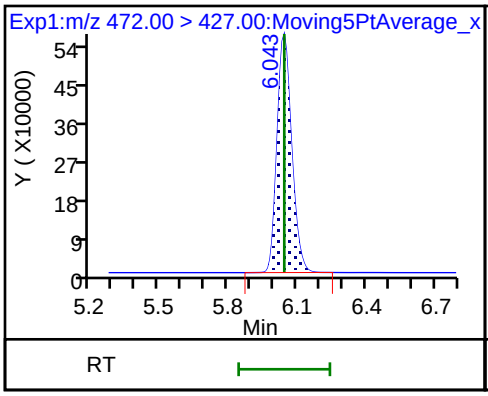
D 41 13C8 PFOS



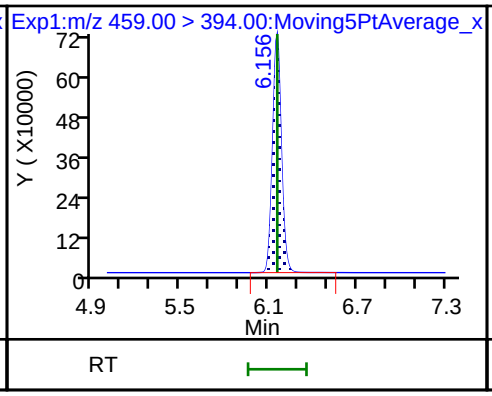
* 42 13C4 PFOS



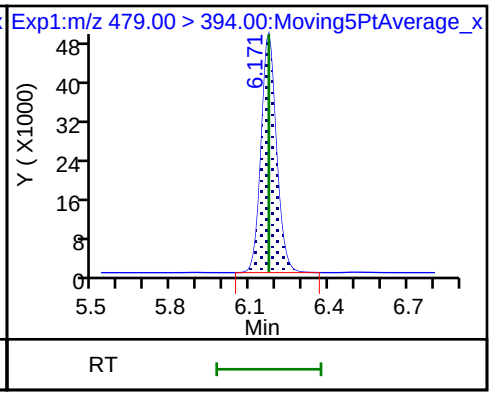
D 45 13C9 PFNA



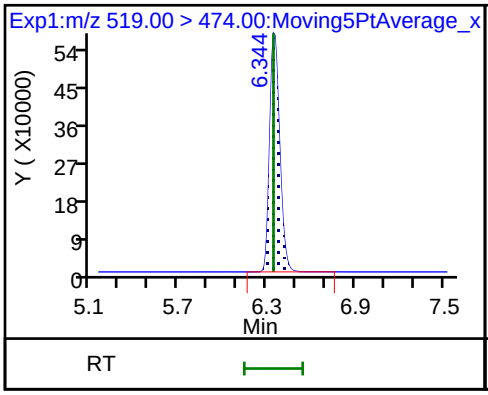
D 48 13C-8:2 FTUCA



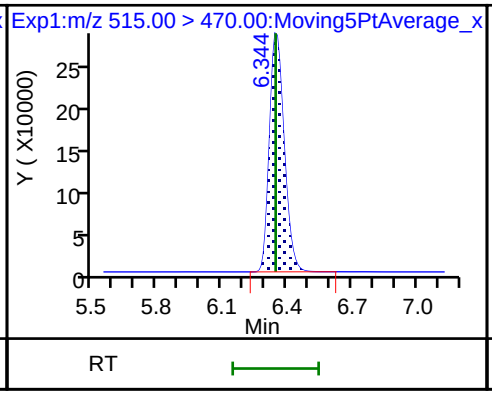
D 50 13C-8:2 FTCA



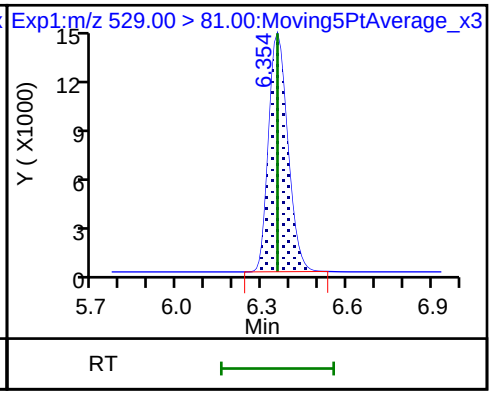
D 54 13C6 PFDA



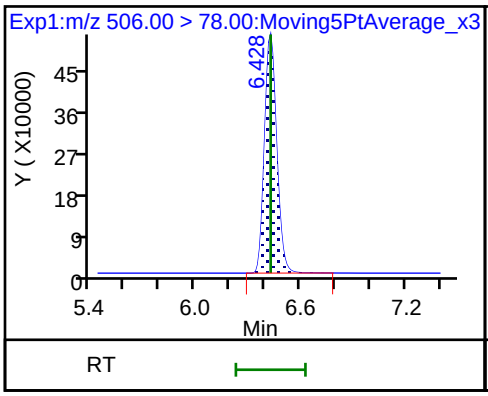
* 55 13C2 PFDA



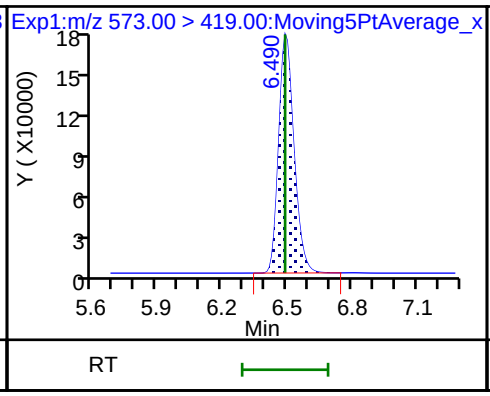
D 57 M2-8:2 FTS



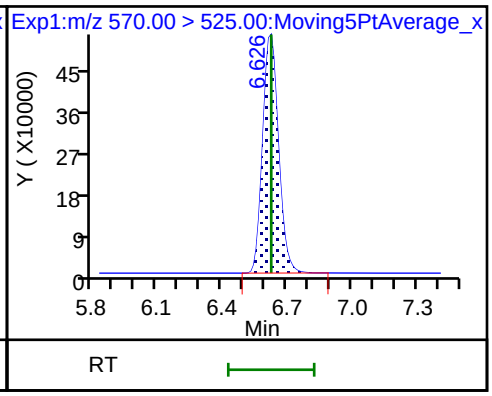
D 59 13C8 FOSA



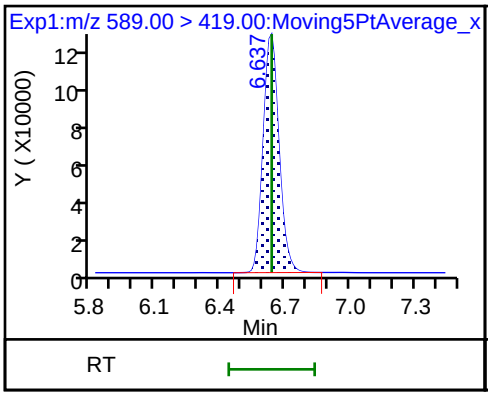
D 61 d3-NMeFOSAA



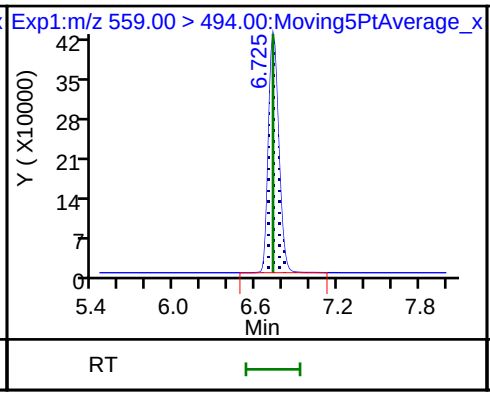
D 65 13C7 PFUnA



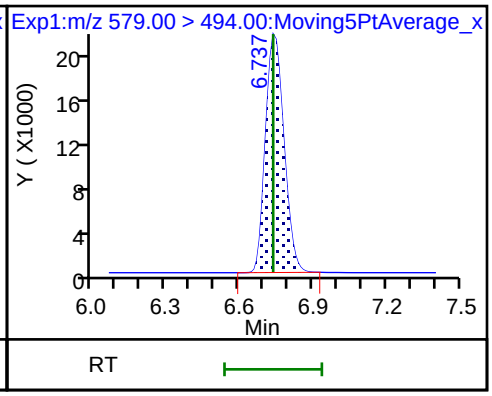
D 66 d5-NEtFOSAA



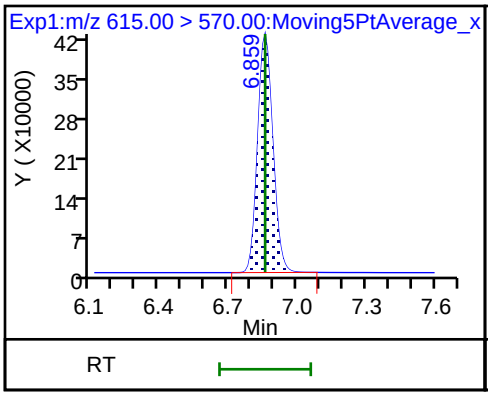
D 70 13C-10:2 FTUCA



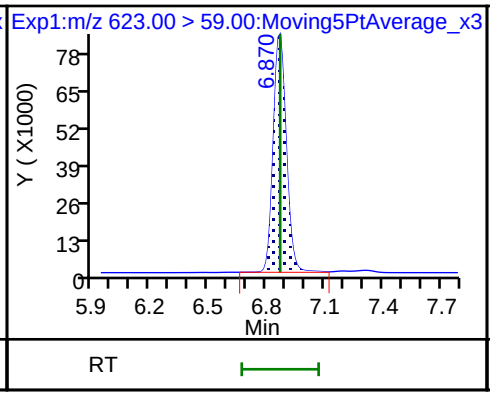
D 72 13C-10:2 FTCA



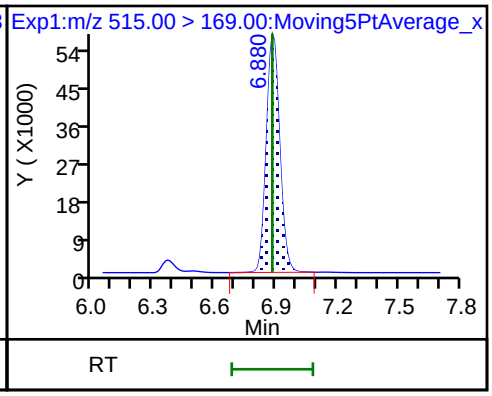
D 74 13C2-PFDoDA



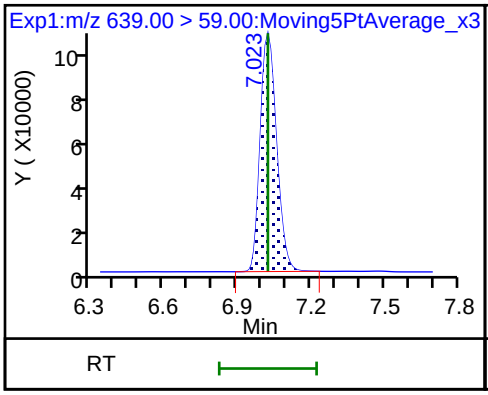
D 76 d7-N-MeFOSE-M



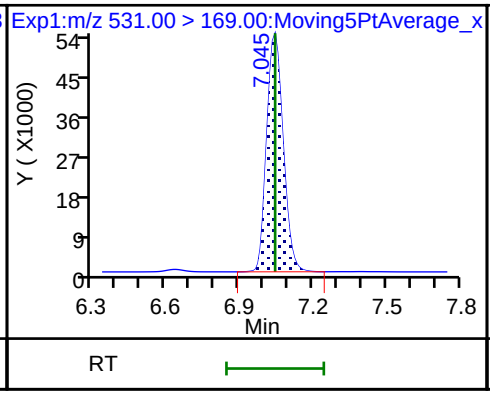
D 79 d3-NMePFOSA



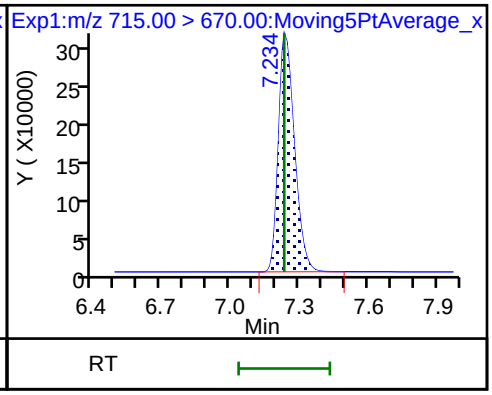
D 81 d9-N-EtFOSE-M



D 83 d5-NEtPFOSA



D 87 13C2 PFTeDA



FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 410-226178/1-A
Matrix: Water
Lab File ID: 22FEB22-61.d
Analysis Method: 537 IDA
Date Collected:
Extraction Method: 537 IDA
Date Extracted: 02/22/2022 07:11
Sample wt/vol: 250(mL)
Date Analyzed: 02/23/2022 08:51
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 5(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 226634
Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	ND		2.0	0.50
375-85-9	Perfluoroheptanoic acid	ND		2.0	0.50
335-67-1	Perfluorooctanoic acid	ND		2.0	0.50
375-95-1	Perfluorononanoic acid	ND		2.0	0.50
335-76-2	Perfluorodecanoic acid	ND		2.0	0.50
72629-94-8	Perfluorotridecanoic acid	ND		2.0	0.50
376-06-7	Perfluorotetradecanoic acid	ND		2.0	0.50
375-73-5	Perfluorobutanesulfonic acid	ND		2.0	0.50
355-46-4	Perfluorohexanesulfonic acid	ND		2.0	0.50
1763-23-1	Perfluorooctanesulfonic acid	ND		2.0	0.50
2991-50-6	NEtFOSAA	ND		3.0	0.50
2355-31-9	NMeFOSAA	ND		2.0	0.60
375-92-8	Perfluoroheptanesulfonic acid	ND		2.0	0.50
335-77-3	Perfluorodecanesulfonic acid	ND		2.0	0.50
754-91-6	Perfluorooctanesulfonamide	ND		2.0	0.50
375-22-4	Perfluorobutanoic acid	ND		5.0	2.0
2058-94-8	Perfluoroundecanoic acid	ND		2.0	0.50
307-55-1	Perfluorododecanoic acid	ND		2.0	0.50
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		5.0	2.0
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		3.0	1.0
2706-90-3	Perfluoropentanoic acid	ND		2.0	0.50

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 410-226178/1-A
Matrix: Water
Lab File ID: 22FEB22-61.d
Analysis Method: 537 IDA
Date Collected:
Extraction Method: 537 IDA
Date Extracted: 02/22/2022 07:11
Sample wt/vol: 250(mL)
Date Analyzed: 02/23/2022 08:51
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 5(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 226634
Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	151		33-200
STL02279	M2-6:2 FTS	142		17-200
STL02577	13C5 PFHxA	146		24-179
STL01892	13C4 PFHpA	144		31-182
STL01052	13C8 PFOA	143		48-162
STL02578	13C9 PFNA	153		51-167
STL02579	13C6 PFDA	152		49-163
STL02580	13C7 PFUnA	140		34-174
STL02703	13C2-PFDoDA	130		17-176
STL02116	13C2 PFTeDA	117		10-179
STL02337	13C3 PFBS	154		16-200
STL02581	13C3 PFHxS	146		28-188
STL01054	13C8 PFOS	151		51-159
STL02118	d3-NMeFOSAA	144		31-174
STL02117	d5-NEtFOSAA	148		29-195
STL01056	13C8 FOSA	127		10-168
STL00992	13C4 PFBA	152		42-165
STL01893	13C5 PFPeA	146		38-187

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-61.d
Lims ID: MB 410-226178/1-A
Client ID:
Sample Type: MB
Inject. Date: 23-Feb-2022 08:51:13 ALS Bottle#: 49 Worklist Smp#: 57
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: MB 410-226178/1-A
Misc. Info.: Plate: 3 Rack: 1 410-0050963-057
Operator ID: US19_USR_INS20260 Instrument ID: 30733

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 11:52:21 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1671

First Level Reviewer: kruelleh Date: 23-Feb-2022 11:08:56
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										
175.00 > 97.00		1.469				ND				
1 PPF Acid										
163.00 > 119.00		1.837				ND				
96 PFMOAA										
179.00 > 85.00		2.942				ND				
100 R-PSDA										
441.00 > 241.00		3.947				ND				
99 R-EVE										
405.00 > 217.00		3.947				ND				
105 Hydrolyzed PSDA										
439.00 > 343.00		3.963				ND				
D 3 13C4 PFBA										
217.00 > 172.00	3.991	3.972	0.019	1.000	1916611	15.2		152	145171	
2 Perfluorobutanoic acid										
213.00 > 169.00		3.972				ND				
* 4 13C3-PFBA										
216.00 > 172.00	3.991	3.972	0.019		566795	5.00			2406	
102 PMPA										
229.00 > 185.00		4.098				ND				
5 PFPrS										
249.00 > 99.00		4.159				ND				
103 NVHOS										
297.00 > 135.00		4.191				ND				
6 PFECA F										
229.00 > 85.00		4.223				ND				
92 PFO2HxA										
245.00 > 85.00		4.402				ND				

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
7 Perfluoropentanoic acid										
263.00 > 219.00		4.514				ND				
D 8 13C5 PFPeA										
268.00 > 223.00	4.536	4.524	0.012	1.136	1587248	14.6		146	89187	
9 3:3 FTCA										
241.00 > 177.00		4.524				ND				
D 11 13C3 PFBS										
302.00 > 80.00	4.592	4.572	0.020	1.151	1231030	14.3		154	95075	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00		4.572				ND				
299.00 > 99.00		4.572								
91 PEPA										
279.00 > 235.00		4.628				ND				
12 PFECA A										
279.00 > 85.00		4.653				ND				
13 PES										
315.00 > 135.00		4.740				ND				
14 PFECA B										
201.00 > 85.00		4.870				ND				
295.00 > 201.00		4.870								
D 16 M2-4:2 FTS										
329.00 > 81.00	4.921	4.899	0.022	0.862	264159	14.7		157	19047	
15 4:2 FTS										
327.00 > 307.00		4.899				ND				
327.00 > 81.00		4.899								
D 19 13C5 PFHxA										
318.00 > 273.00	4.952	4.940	0.012	0.868	2040100	14.6		146	88001	
17 Perfluorohexanoic acid										
313.00 > 269.00		4.940				ND				
313.00 > 119.00		4.940								
$ 18 13C2 PFHxA										
315.00 > 270.00		4.940				ND				
20 Perfluoropentanesulfonic acid										
349.00 > 80.00		4.960				ND				
349.00 > 99.00		4.960								
93 PFO3OA										
311.00 > 85.00		4.999				ND				
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.081	5.070	0.011	0.890	277447	13.5		135	21188	
21 HFPO-DA										
329.00 > 285.00		5.070				ND				
106 Hydro-PS Acid										
463.00 > 263.00		5.273				ND				
97 Hydro-EVE Acid										
427.00 > 283.00		5.284				ND				
94 R-PSDCA										
397.00 > 217.00		5.284				ND				

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 25 13C3 PFHxS										
402.00 > 80.00	5.348	5.326	0.022	0.937	1196324	13.8		146	87113	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00		5.326				ND				
399.00 > 99.00		5.326								
23 Perfluoroheptanoic acid										
363.00 > 319.00		5.326				ND				
363.00 > 169.00		5.326								
D 24 13C4 PFHpA										
367.00 > 322.00	5.348	5.337	0.011	0.937	2235534	14.4		144	98008	
27 DONA										
377.00 > 251.00		5.374				ND				
98 PFECA G										
379.00 > 185.00		5.391				ND				
28 5:3 FTCA										
341.00 > 237.00		5.407				ND				
341.00>217.00		5.407								
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.451	5.432	0.019	0.955	1455807	10.8		108	68006	
29 6:2 FTUCA										
357.00 > 293.00		5.432				0				
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.467	5.449	0.018	0.958	316355	25.6		256	25201	
32 6:2 FTCA										
377.00 > 293.00		5.449				ND				
95 PFO4DA										
377.00 > 85.00		5.502				ND				
104 PS Acid										
443.00 > 147.00		5.544				ND				
90 EVE Acid										
407.00 > 263.00		5.569				ND				
33 PFECHS										
461.00 > 381.00		5.629				ND				
461.00 > 99.00		5.629								
D 35 M2-6:2 FTS										
429.00 > 81.00	5.697	5.677	0.020	0.998	100483	13.5		142	7427	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00		5.677				ND				
449.00 > 99.00		5.677								
34 6:2 FTS										
427.00 > 407.00		5.677				ND				
427.00 > 81.00		5.677								
40 Perfluorooctanoic acid										
413.00 > 369.00		5.696				ND				
413.00 > 169.00		5.696								
D 37 13C8 PFOA										
421.00 > 376.00	5.707	5.696	0.011	1.000	2447543	14.3		143	136248	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
$ 39 13C4 PFOA										
417.00 > 372.00	5.707	5.696	0.011	1.000	23260	NC			1742	
* 38 13C2 PFOA										
415.00 > 370.00	5.707	5.696	0.011		646659	5.00			47536	
101 TAF										
443.00 > 85.00		5.945				ND				
D 41 13C8 PFOS										
507.00 > 80.00	6.025	6.015	0.010	1.000	1187569	14.4		151	38166	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00		6.015				ND				
499.00 > 99.00		6.015								
* 42 13C4 PFOS										
503.00 > 80.00	6.025	6.015	0.010		390462	4.78			29226	
D 45 13C9 PFNA										
472.00 > 427.00	6.044	6.033	0.011	1.003	2101106	15.3		153	156825	
44 Perfluorononanoic acid										
463.00 > 419.00		6.033				ND				
463.00 > 169.00		6.033								
46 7:3 FTCA										
441.00 > 337.00		6.139				ND				
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.157	6.148	0.009	0.969	1923377	11.0		110	115902	
47 8:2 FTUCA										
457.00 > 393.00		6.148				0				
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.172	6.164	0.008	0.971	270637	23.2		232	21906	
49 8:2 FTCA										
477.00 > 393.00		6.164				ND				
51 9ClFOS										
531.00 > 351.00		6.187				ND				
52 Perfluorononanesulfonic acid										
549.00 > 80.00		6.316				ND				
549.00 > 99.00		6.316								
D 54 13C6 PFDA										
519.00 > 474.00	6.355	6.344	0.011	1.000	2402332	15.2		152	103489	
53 Perfluorodecanoic acid										
513.00 > 469.00		6.344				ND				
513.00 > 169.00		6.344								
* 55 13C2 PFDA										
515.00 > 470.00	6.355	6.344	0.011		791163	5.00			56171	
56 8:2 FTS										
527.00 > 507.00		6.344				ND				
527.00 > 81.00		6.344								
D 57 M2-8:2 FTS										
529.00 > 81.00	6.355	6.354	0.001	1.000	61955	14.4		151	4359	
D 59 13C8 FOSA										
506.00 > 78.00	6.440	6.419	0.021	1.013	1892623	12.7		127	129711	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanesulfonamide										
498.00 > 78.00		6.419				0				
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.501	6.491	0.010	1.023	764082	14.4		144	51836	
60 NMeFOSAA										
570.00 > 419.00		6.491				ND				
570.00 > 483.00		6.491								
62 Perfluorodecanesulfonic acid										
599.00 > 80.00		6.580				ND				
599.00 > 99.00		6.580								
D 65 13C7 PFUnA										
570.00 > 525.00	6.627	6.615	0.012	1.043	2135715	14.0		140	140845	
63 Perfluoroundecanoic acid										
563.00 > 519.00		6.615				ND				
563.00 > 169.00		6.615								
$ 64 13C2 PFUnA										
565.00 > 520.00		6.615				ND				
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.639	6.626	0.013	1.045	551948	14.8		148	36439	
67 NEtFOSAA										
584.00 > 419.00		6.638				ND				
584.00 > 526.00		6.638								
68 10:2 FTUCA										
557.00 > 493.00		6.713				ND				
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.726	6.725	0.001	1.058	1429037	10.8		108	90536	
69 11ClFOS										
631.00 > 451.00		6.725				ND				
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.750	6.737	0.013	1.062	125090	19.2		192	8004	
71 10:2 FTCA										
577.00 > 493.00		6.737				ND				
73 Perfluorododecanoic acid										
613.00 > 569.00		6.850				ND				
613.00 > 169.00		6.850								
D 74 13C2-PFDoDA										
615.00 > 570.00	6.861	6.850	0.011	1.080	1478301	13.0		130	79326	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.871	6.860	0.011	1.081	288172	12.2		122	10383	
77 N-MeFOSE-M										
616.00 > 59.00		6.870				ND				
75 10:2 FTS										
627.00 > 607.00		6.870				ND				
627.00 > 81.00		6.870								
D 79 d3-NMePFOSA										
515.00 > 169.00	6.891	6.880	0.011	1.084	119284	7.86		78.6	2643	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
78 NMeFOSA										
512.00 > 169.00		6.880				ND				
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.036	7.013	0.023	1.107	304706	11.3		113	10821	
82 N-EtFOSE-M										
630.00 > 59.00		7.024				ND				
80 PFDoS										
699.00 > 80.00		7.024				ND				
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.057	7.035	0.022	1.110	92627	6.40		64.0	4951	
84 N-EtFOSA-M										
526.00 > 169.00		7.045				ND				
85 Perfluorotridecanoic acid										
663.00 > 619.00		7.056				ND				
663.00 > 169.00		7.056								
86 Perfluorotetradecanoic acid										
713.00 > 669.00		7.226				ND				
713.00 > 169.00		7.226								
D 87 13C2 PFTeDA										
715.00 > 670.00	7.248	7.234	0.014	1.141	1121786	11.7		117	57313	
88 Perfluorohexadecanoic acid										
813.00 > 769.00		7.534				ND				
813.00 > 169.00		7.534								
89 Perfluorooctadecanoic acid										
913.00 > 869.00		7.770				ND				
913.00 > 169.00		7.770								

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

PFC_IS_MOD_00273 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 23-Feb-2022 11:52:40 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-61.d

Injection Date: 23-Feb-2022 08:51:13 Instrument ID: 30733

Lims ID: MB 410-226178/1-A

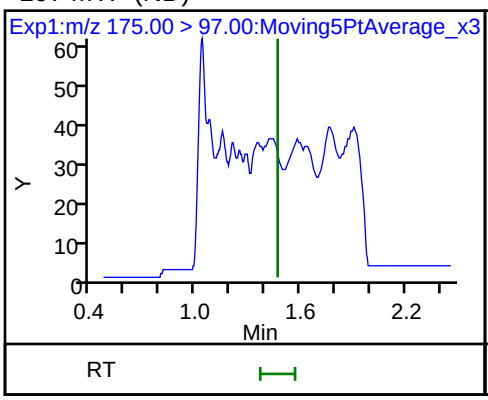
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 49 Worklist Smp#: 57

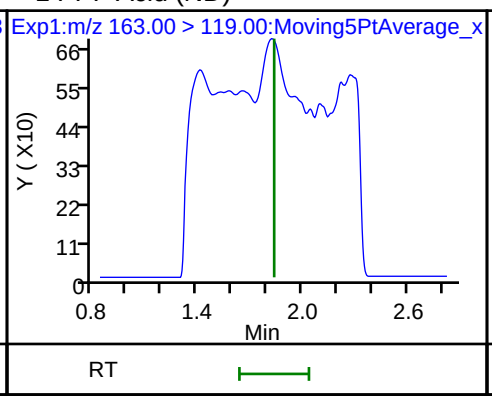
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

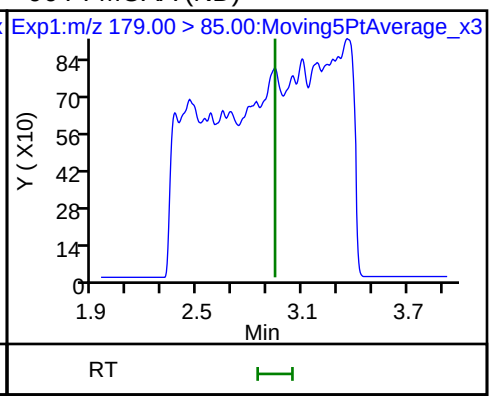
107 MTP (ND)



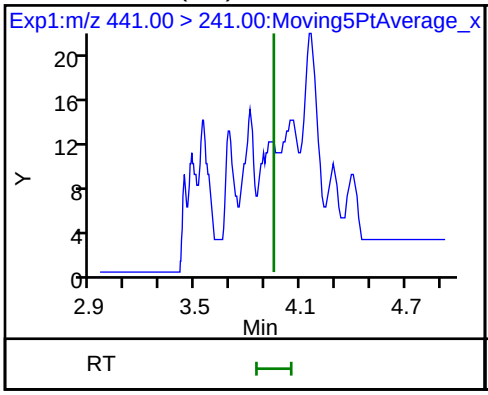
1 PPF Acid (ND)



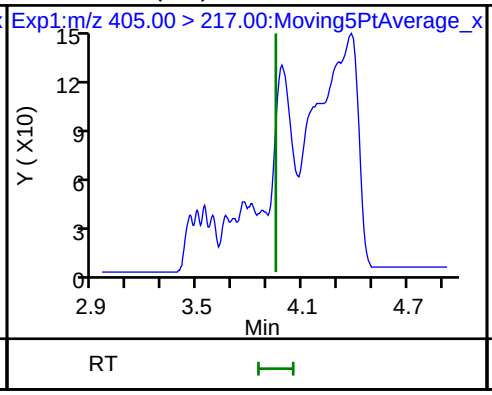
96 PFMOAA (ND)



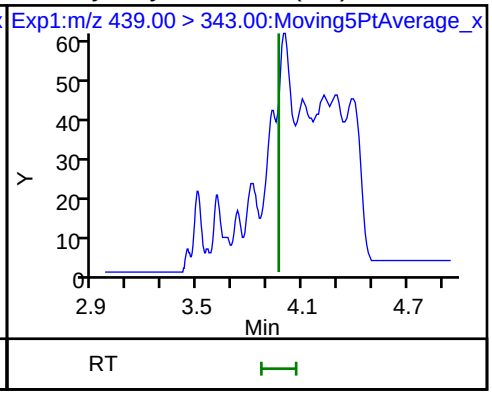
100 R-PSDA (ND)



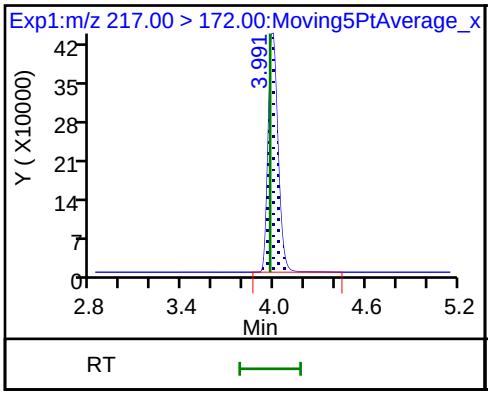
99 R-EVE (ND)



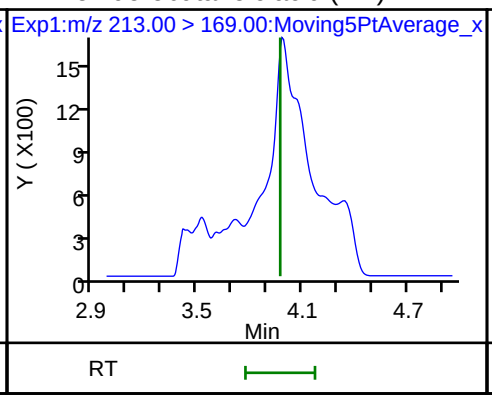
105 Hydrolyzed PSDA (ND)



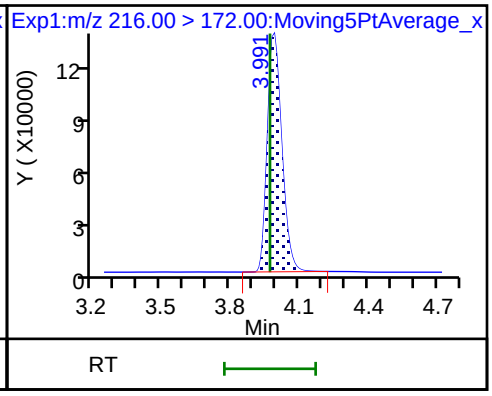
D 3 13C4 PFBA



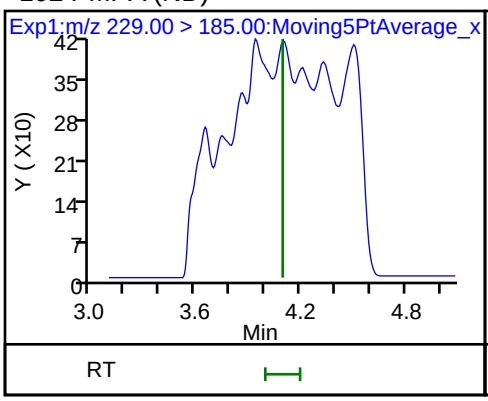
2 Perfluorobutanoic acid (ND)



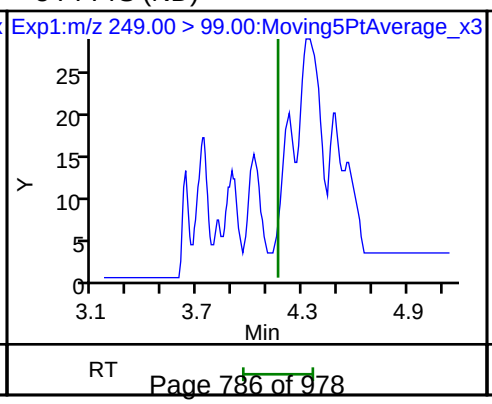
* 4 13C3-PFBA



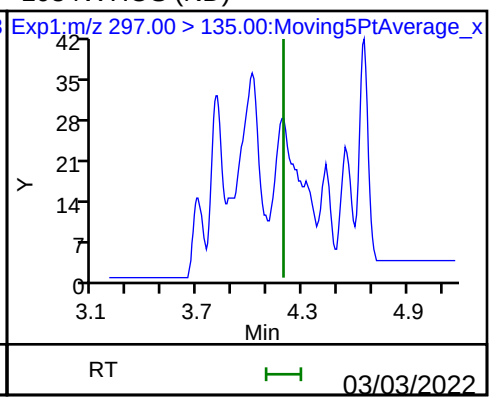
102 PMPA (ND)



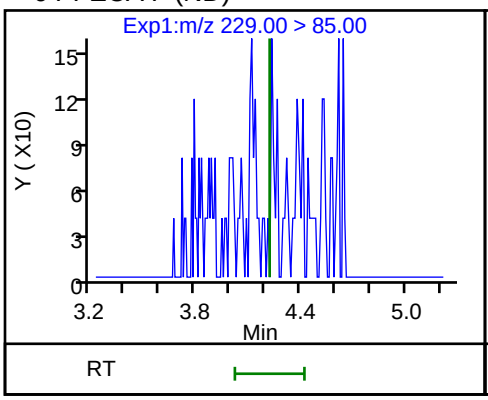
5 PFPrS (ND)



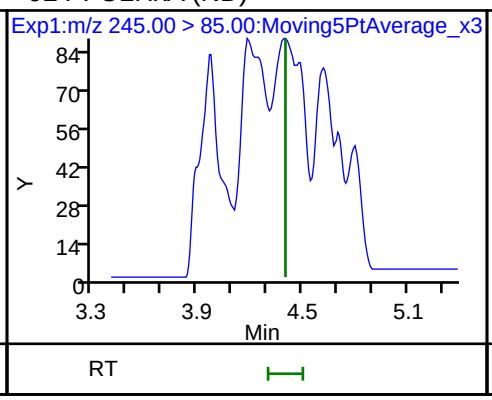
103 NVHOS (ND)



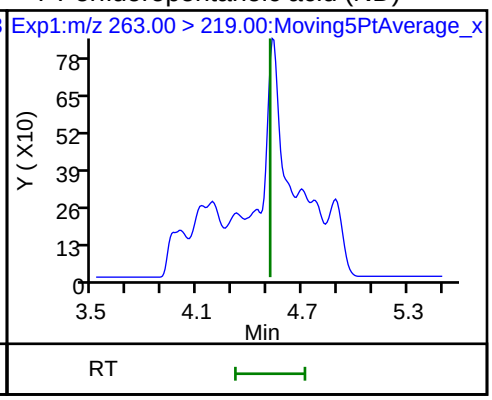
6 PFECA F (ND)



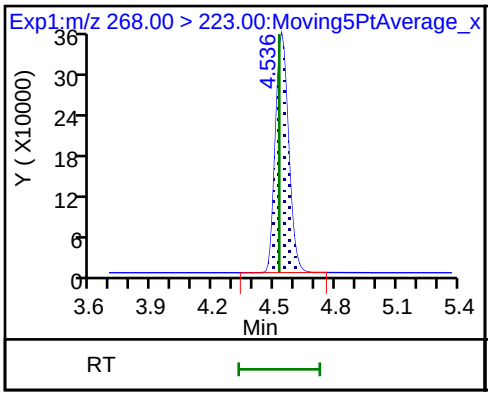
92 PFO2HxA (ND)



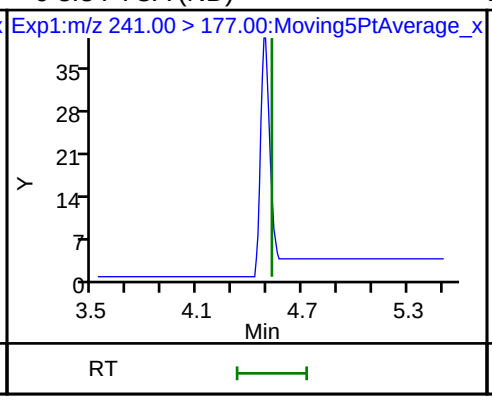
7 Perfluoropentanoic acid (ND)



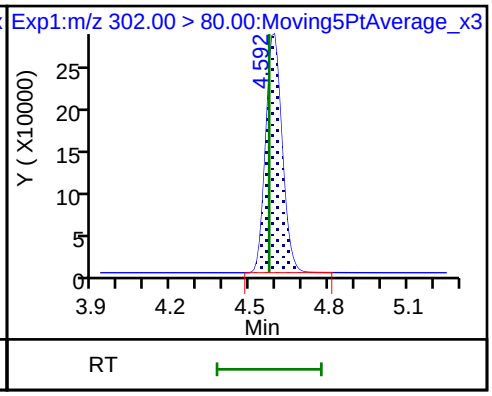
D 8 13C5 PFPeA



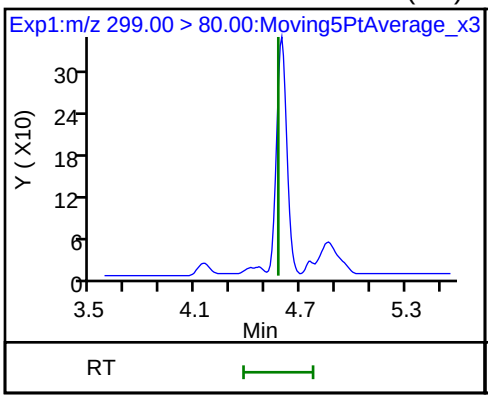
9 3:3 FTCA (ND)



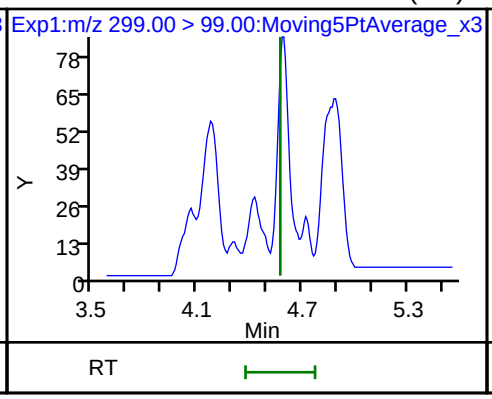
D 11 13C3 PFBS



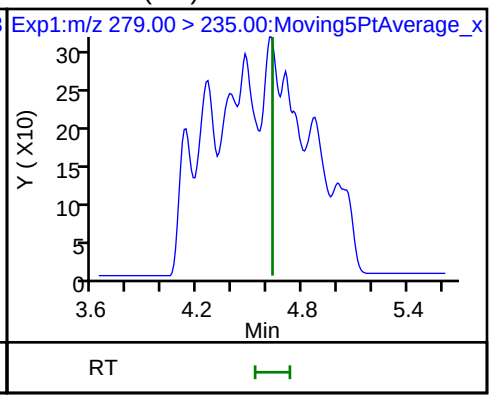
10 Perfluorobutanesulfonic acid (ND)



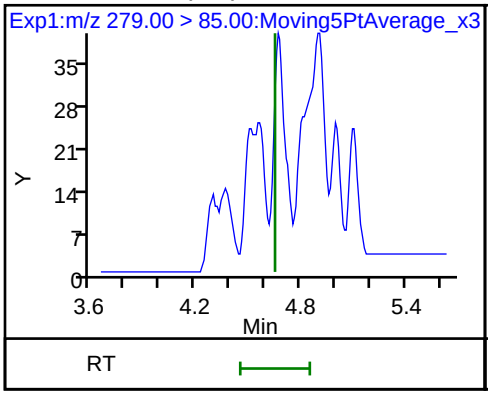
10 Perfluorobutanesulfonic acid (ND)



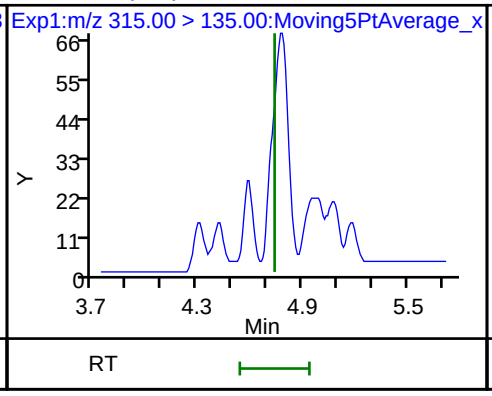
91 PEPA (ND)



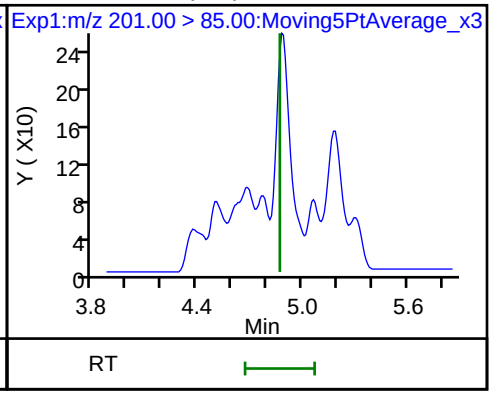
12 PFECA A (ND)



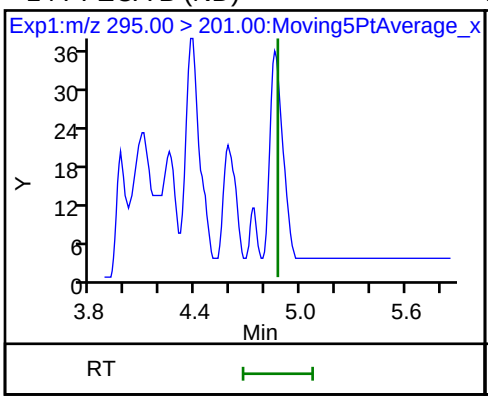
13 PES (ND)



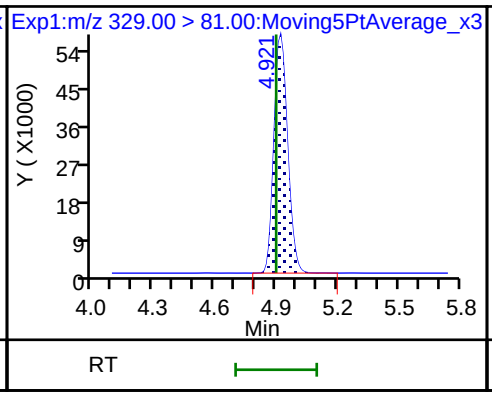
14 PFECA B (ND)



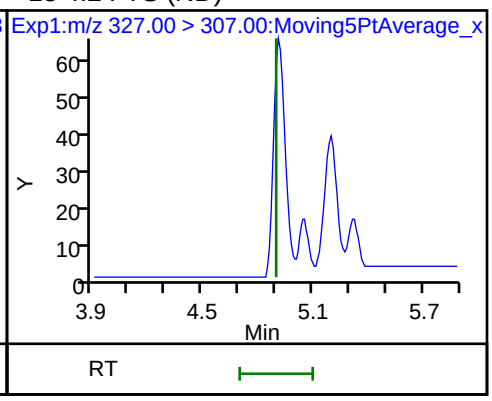
14 PFECA B (ND)



D 16 M2-4:2 FTS



15 4:2 FTS (ND)



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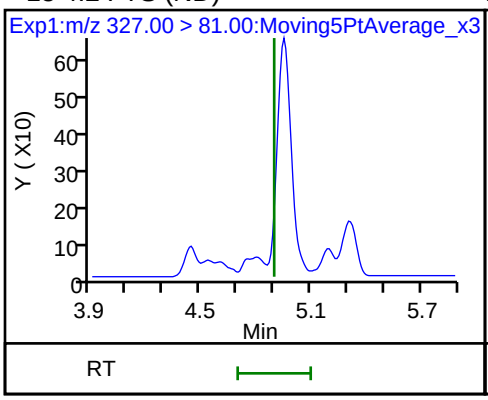
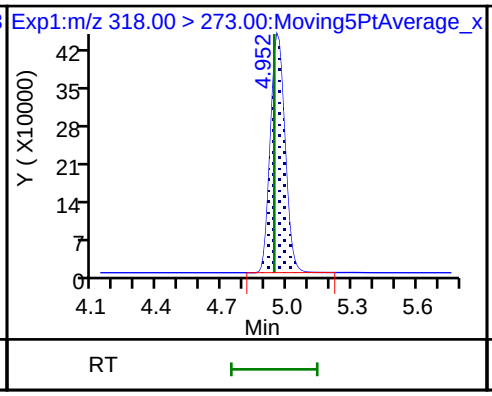
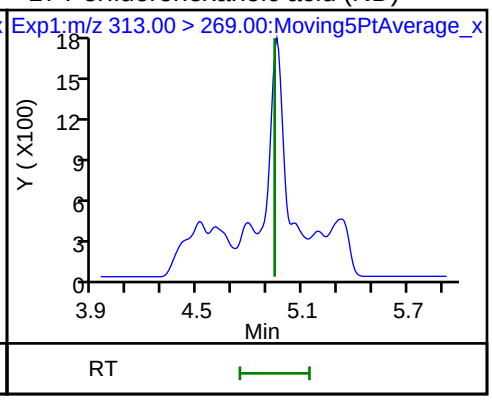


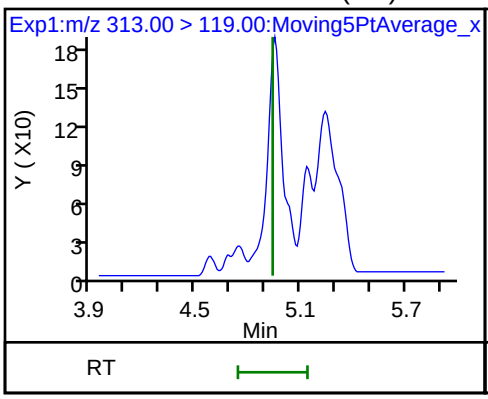
D 19 13C5 PFHxA



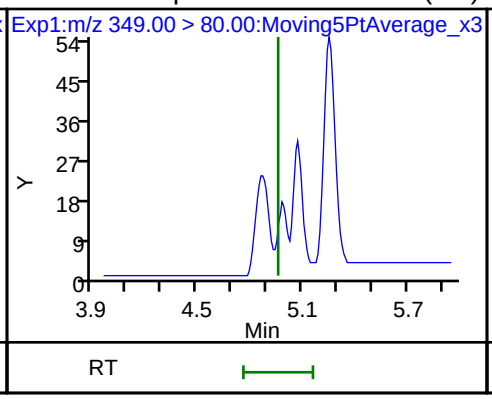
17 Perfluorohexanoic acid (ND)



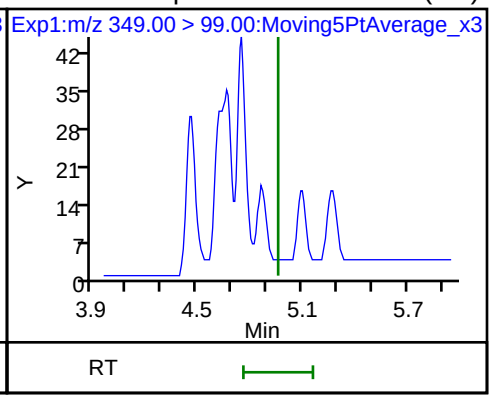
17 Perfluorohexanoic acid (ND)



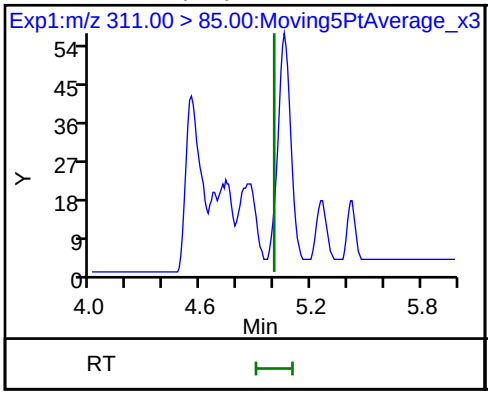
20 Perfluoropentanesulfonic acid (ND)



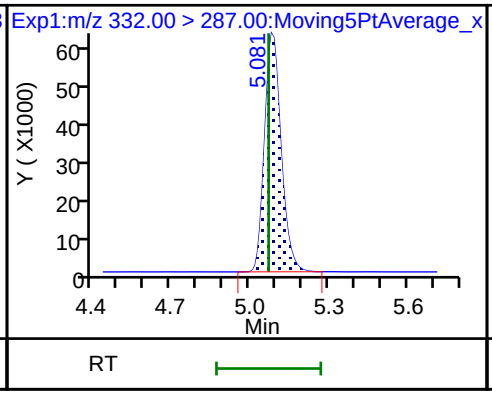
20 Perfluoropentanesulfonic acid (ND)



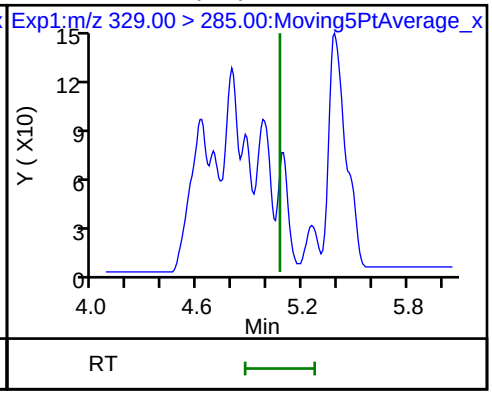
93 PFO3OA (ND)



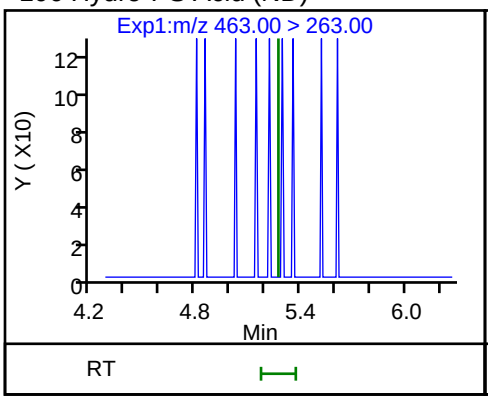
D 22 13C3 HFPO-DA



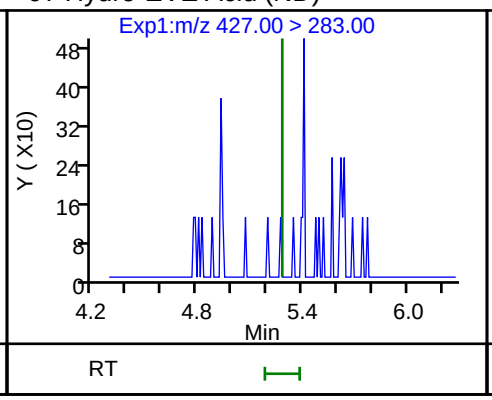
21 HFPO-DA (ND)



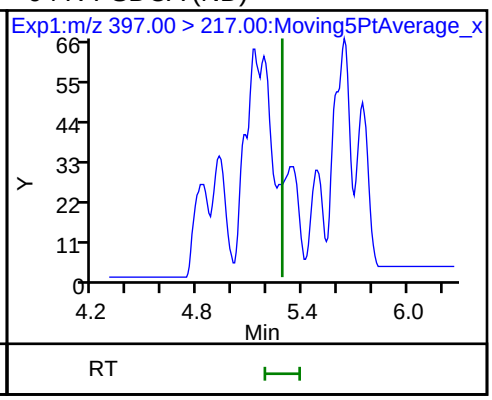
106 Hydro-PS Acid (ND)



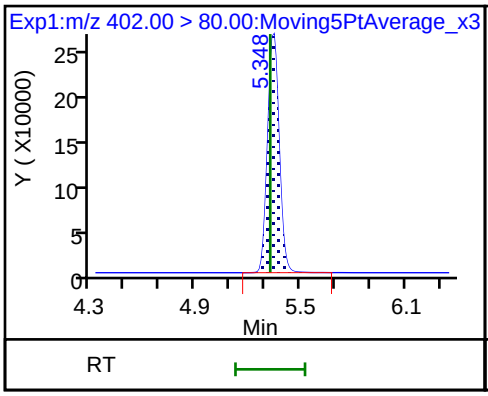
97 Hydro-EVE Acid (ND)



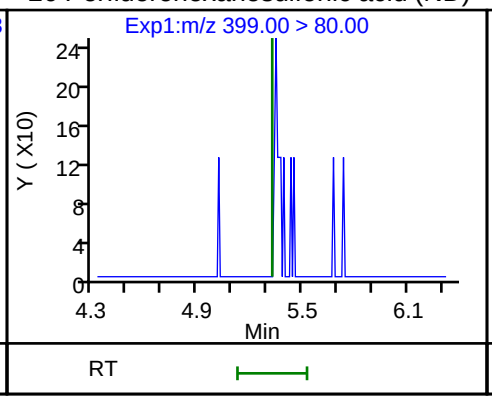
94 R-PSDCA (ND)



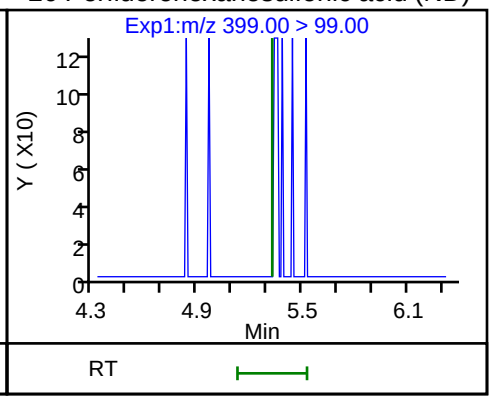
D 25 13C3 PFHxS



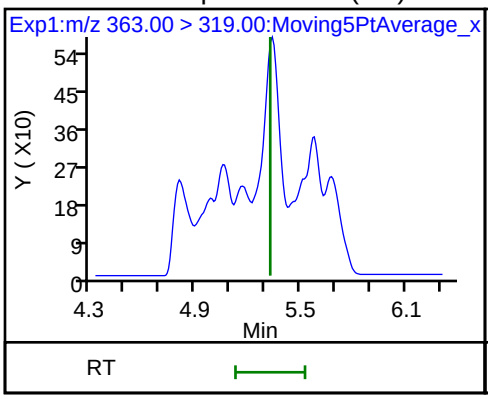
26 Perfluorohexanesulfonic acid (ND)



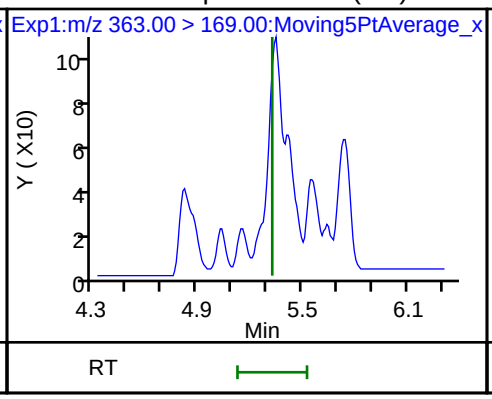
26 Perfluorohexanesulfonic acid (ND)



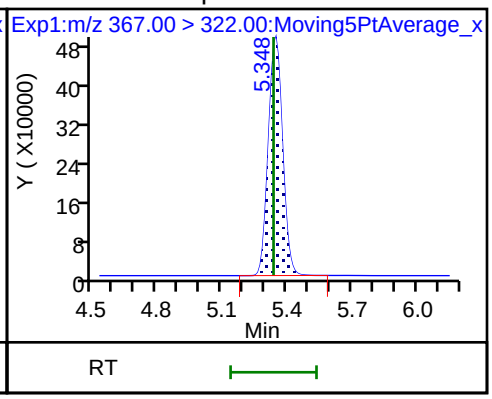
23 Perfluoroheptanoic acid (ND)



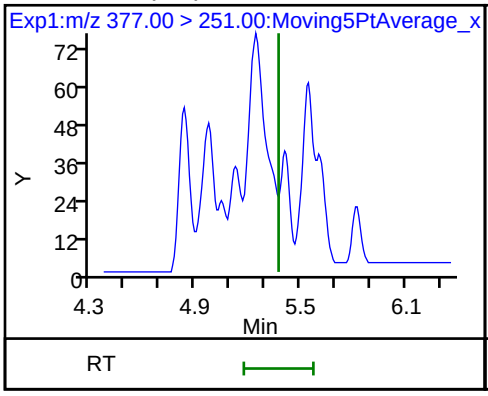
23 Perfluoroheptanoic acid (ND)



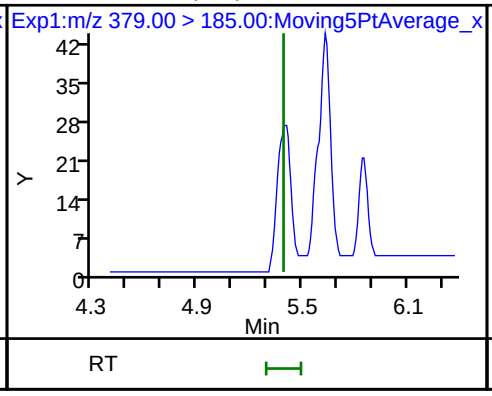
D 24 13C4 PFHpA



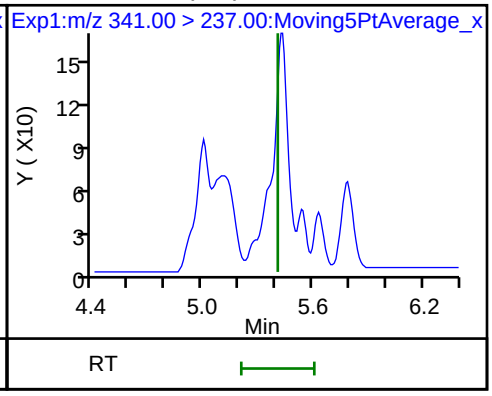
27 DONA (ND)



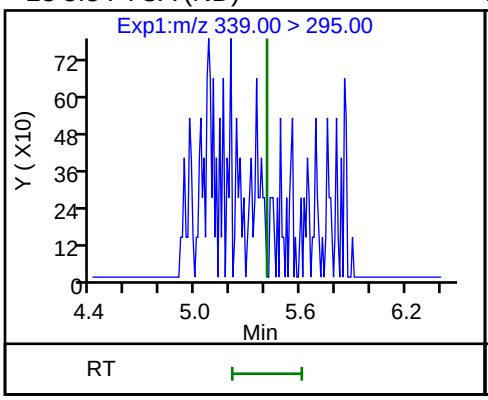
98 PFECA G (ND)



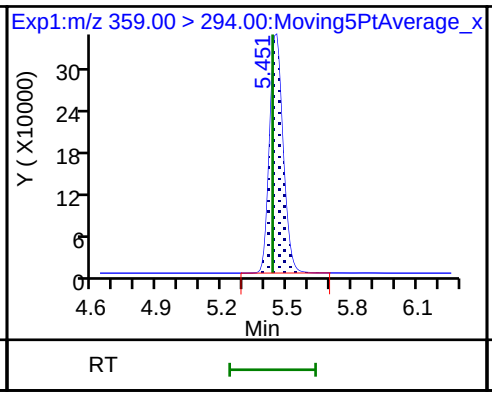
28 5:3 FTCA (ND)



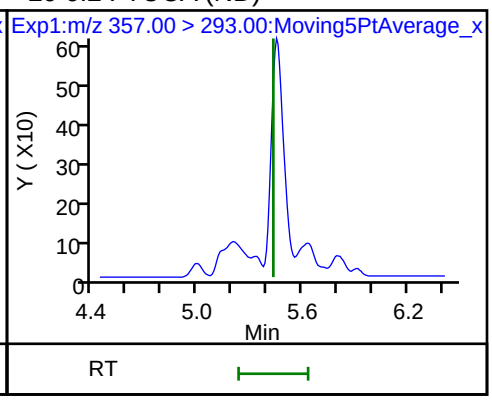
28 5:3 FTCA (ND)



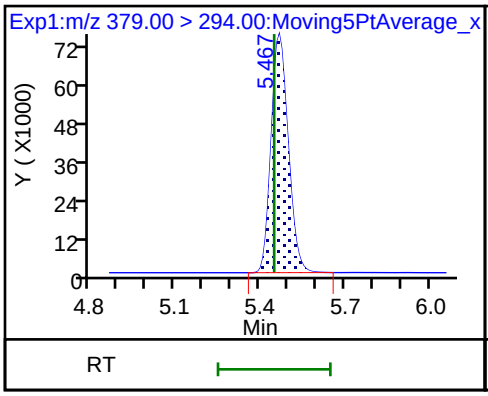
D 30 13C-6:2 FTUCA



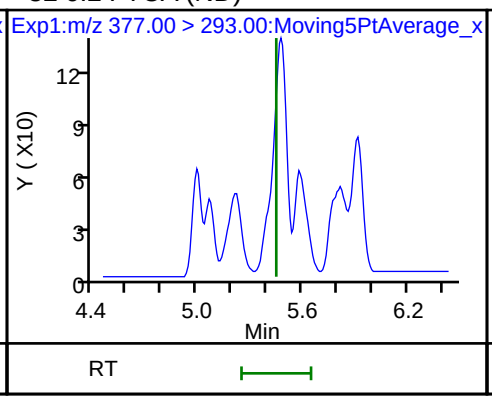
29 6:2 FTUCA (ND)



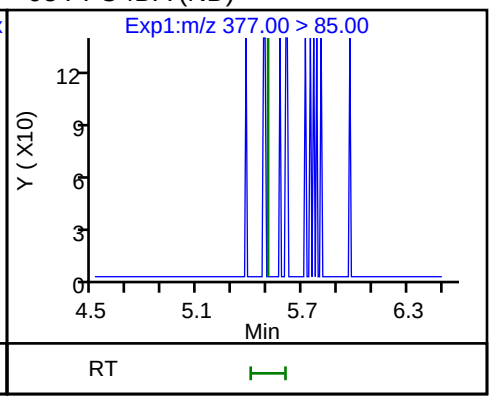
D 31 13C-6:2 FTCA



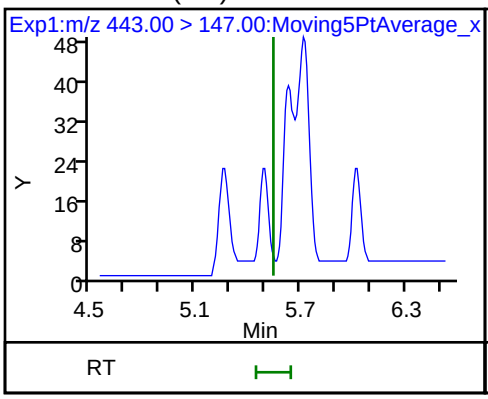
32 6:2 FTCA (ND)



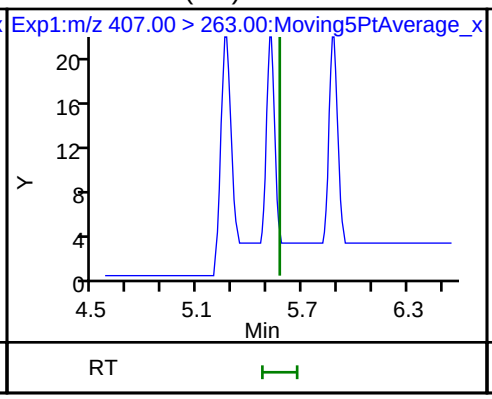
95 PFO4DA (ND)



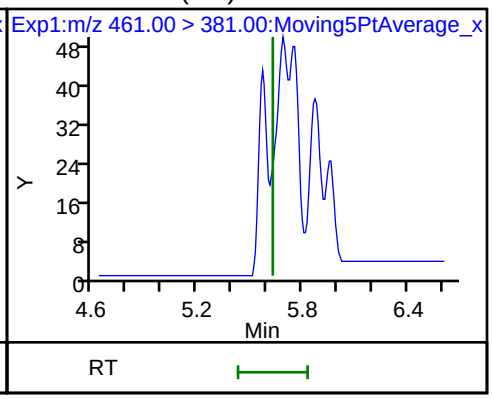
104 PS Acid (ND)



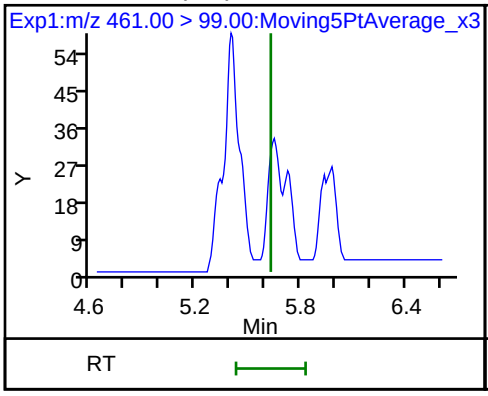
90 EVE Acid (ND)



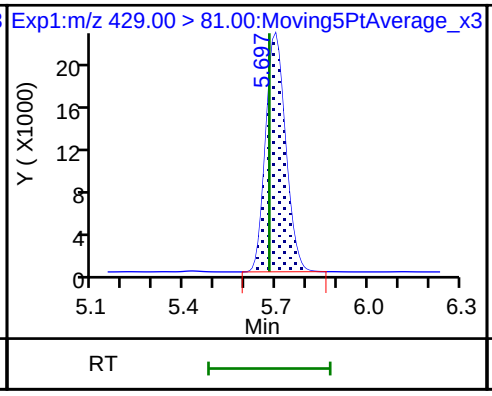
33 PFECHS (ND)



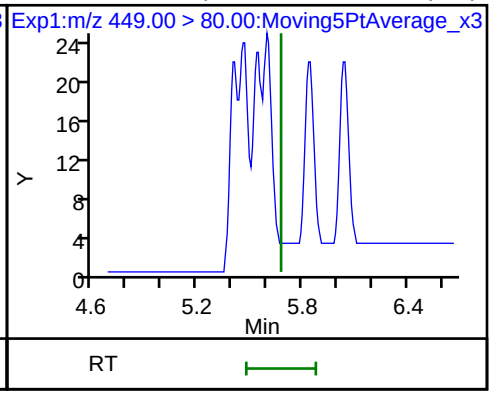
33 PFECHS (ND)



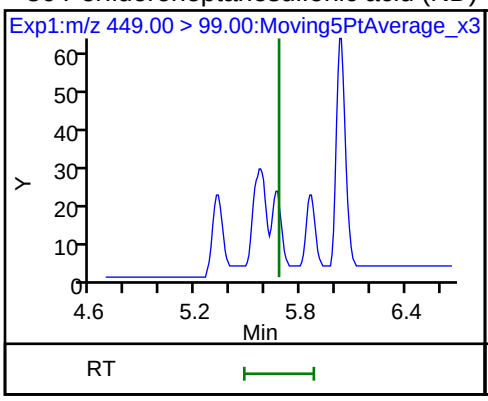
D 35 M2-6:2 FTS



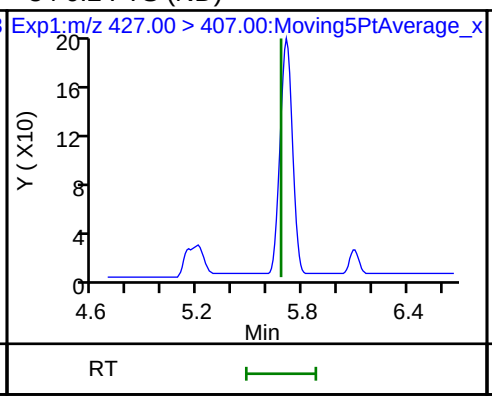
36 Perfluoroheptanesulfonic acid (ND)



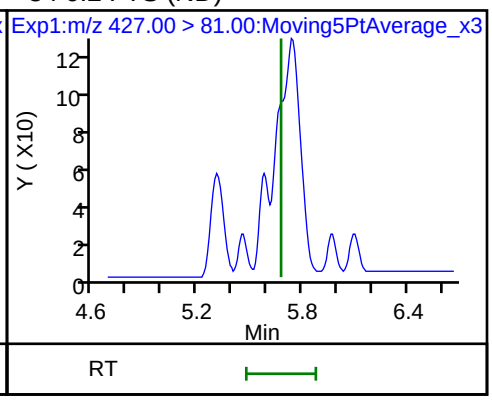
36 Perfluoroheptanesulfonic acid (ND)



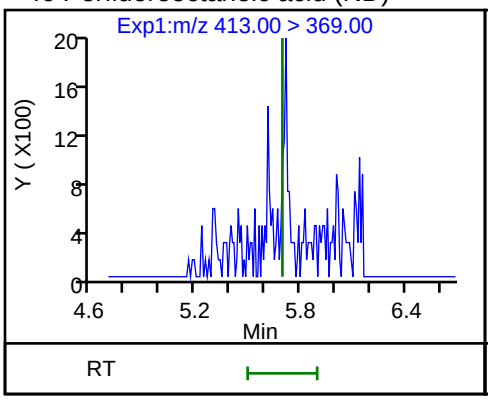
34 6:2 FTS (ND)



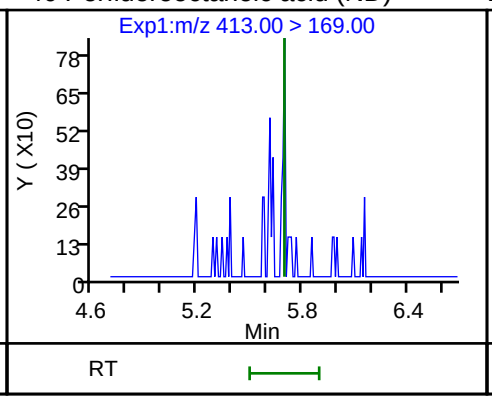
34 6:2 FTS (ND)



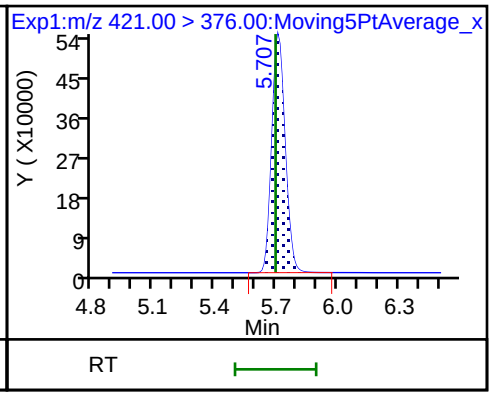
40 Perfluorooctanoic acid (ND)



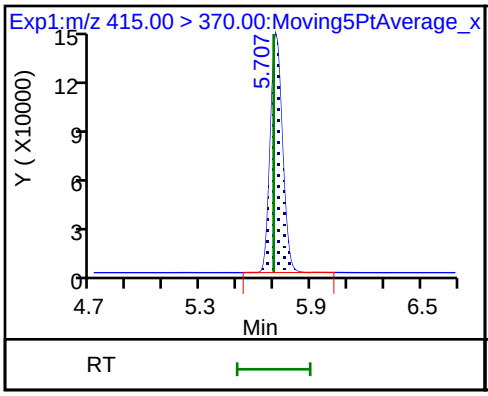
40 Perfluorooctanoic acid (ND)



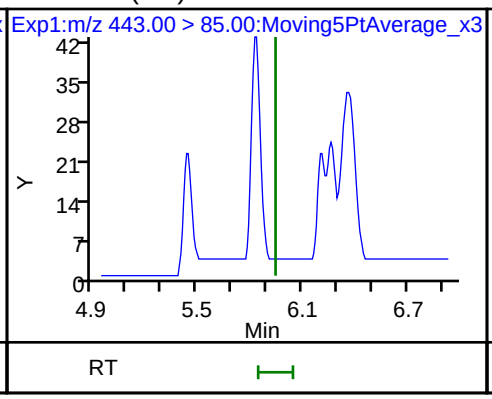
D 37 13C8 PFOA



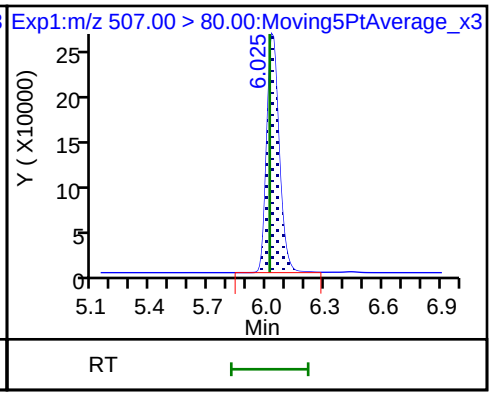
* 38 13C2 PFOA



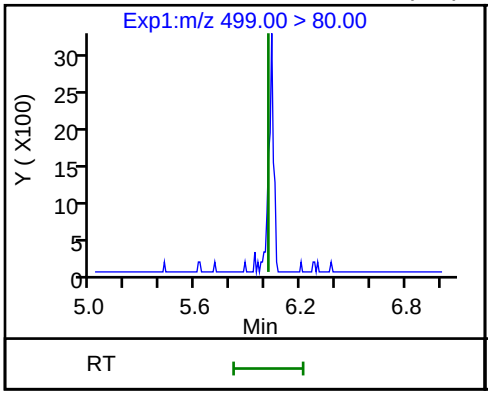
101 TAF (ND)



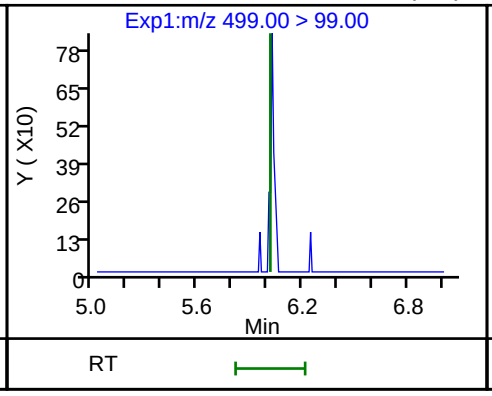
D 41 13C8 PFOS



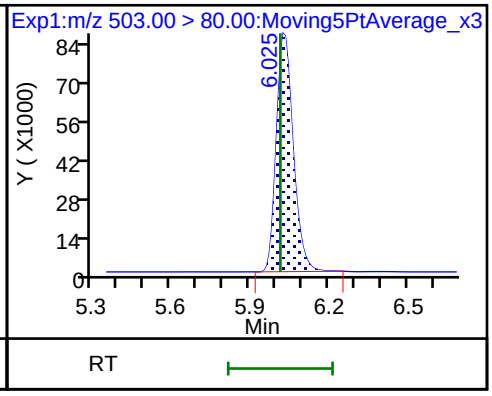
43 Perfluorooctanesulfonic acid (ND)



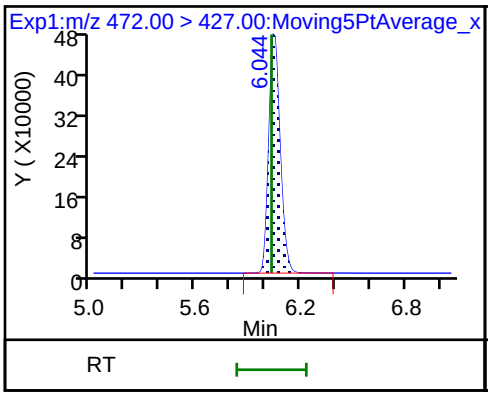
43 Perfluorooctanesulfonic acid (ND)



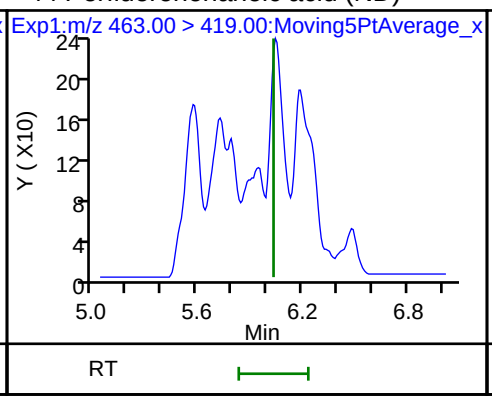
* 42 13C4 PFOS



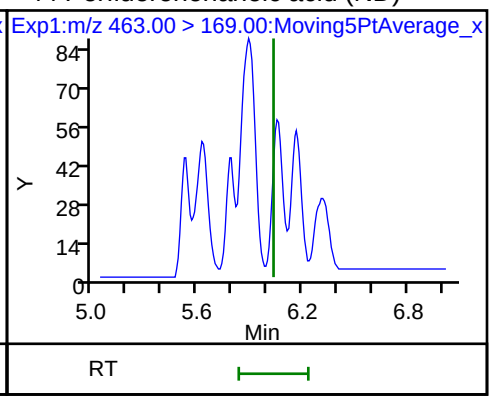
D 45 13C9 PFNA



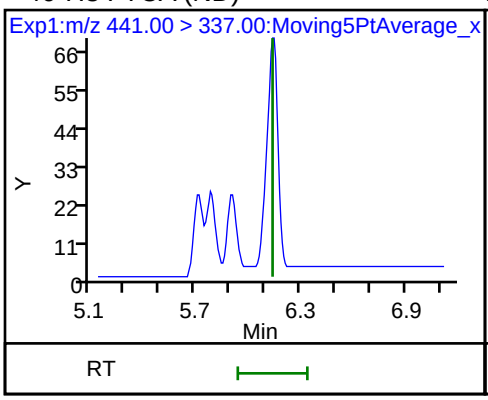
44 Perfluorononanoic acid (ND)



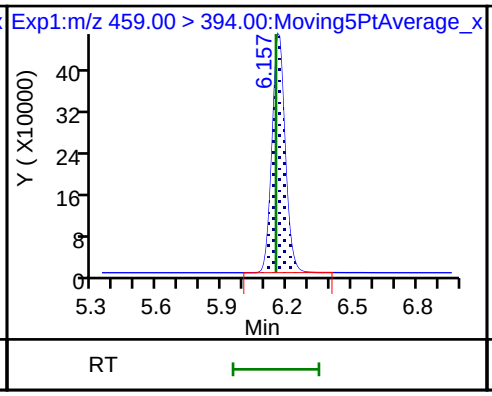
44 Perfluorononanoic acid (ND)



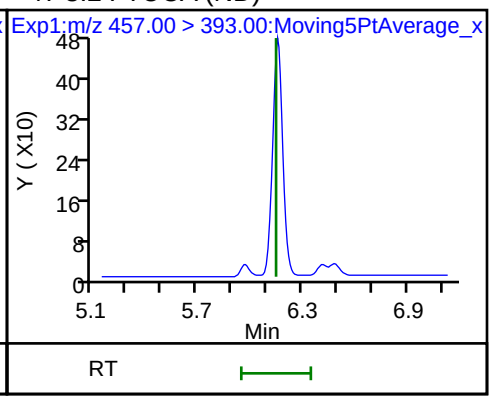
46 7:3 FTCA (ND)



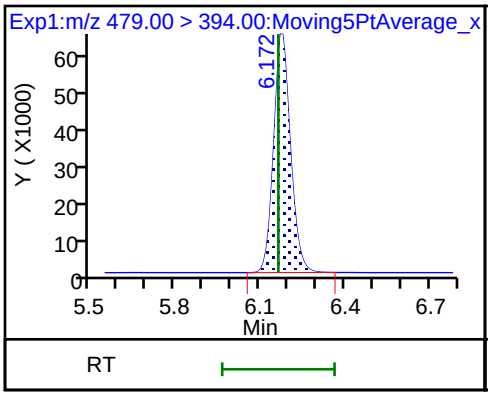
D 48 13C-8:2 FTUCA



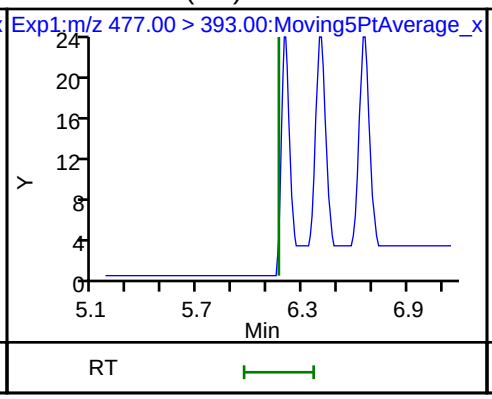
47 8:2 FTUCA (ND)



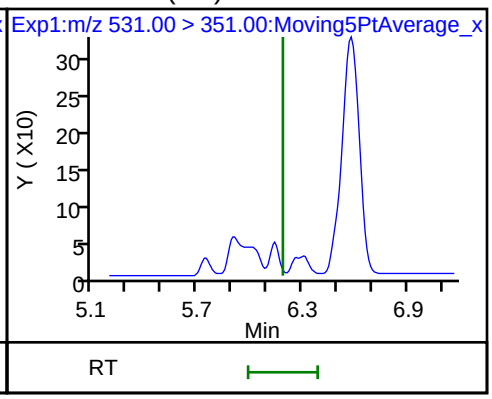
D 50 13C-8:2 FTCA



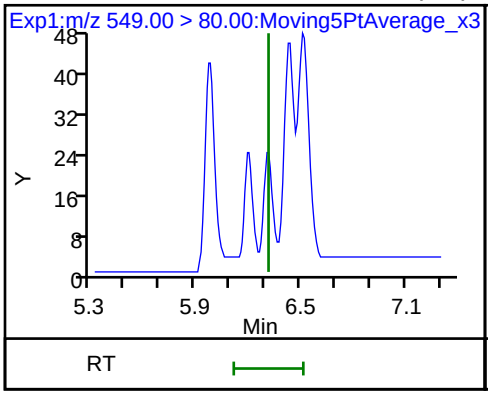
49 8:2 FTCA (ND)



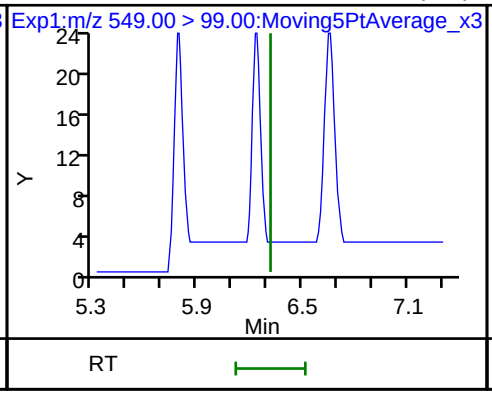
51 9ClFOS (ND)



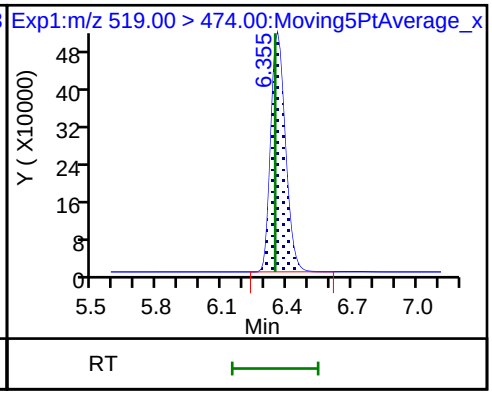
52 Perfluorononanesulfonic acid (ND)



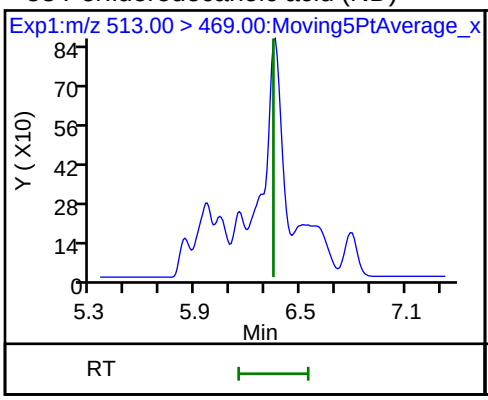
52 Perfluorononanesulfonic acid (ND)



D 54 13C6 PFDA



53 Perfluorodecanoic acid (ND)



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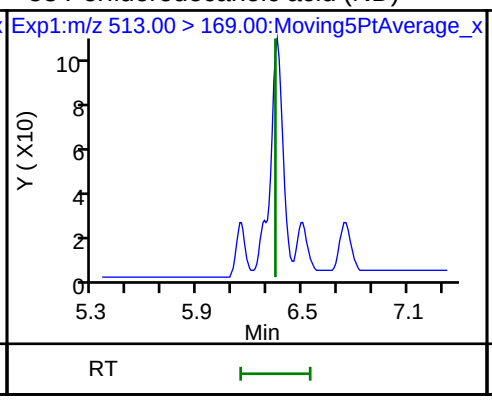
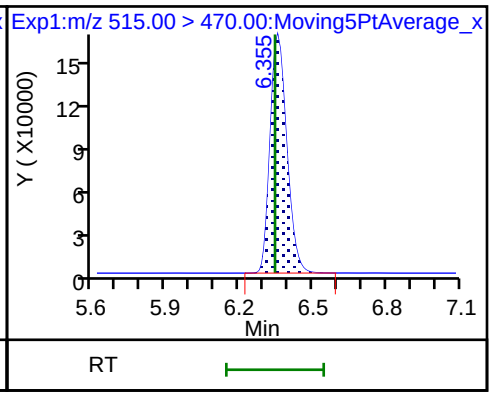
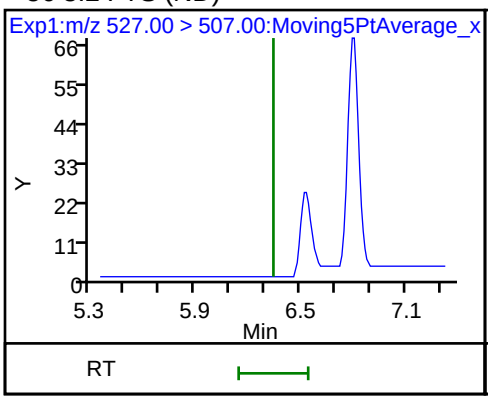


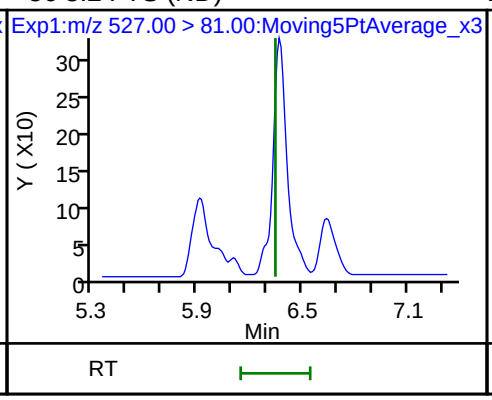
* 55 13C2 PFDA



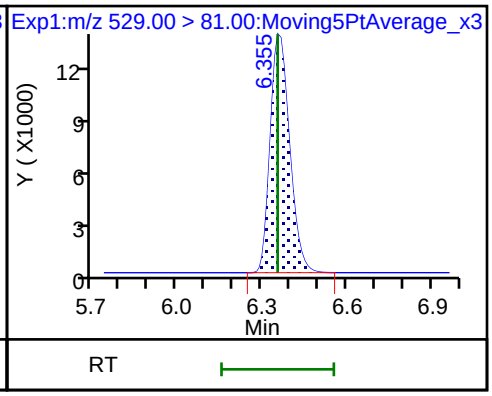
56 8:2 FTS (ND)



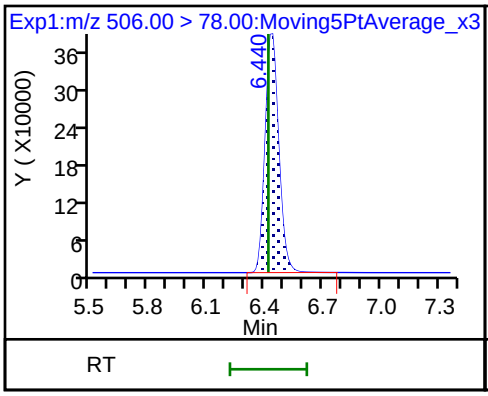
56 8:2 FTS (ND)



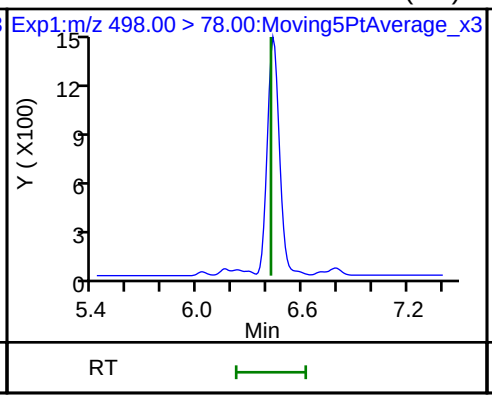
D 57 M2-8:2 FTS



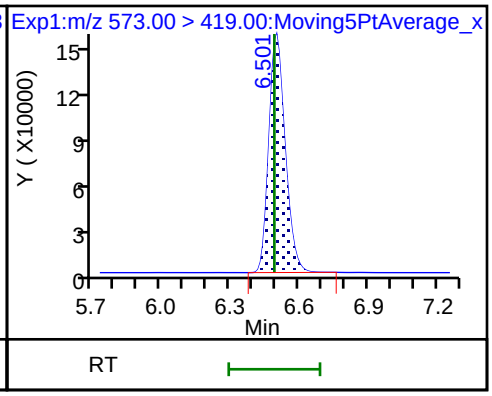
D 59 13C8 FOSA



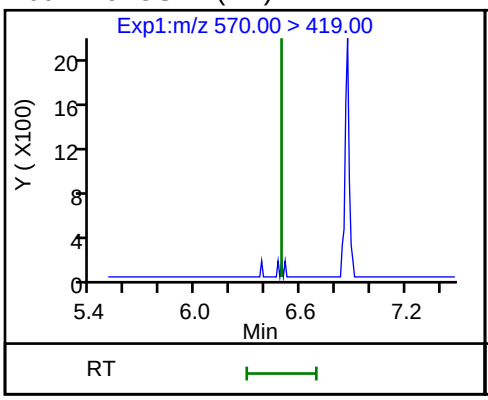
58 Perfluorooctanesulfonamide (ND)



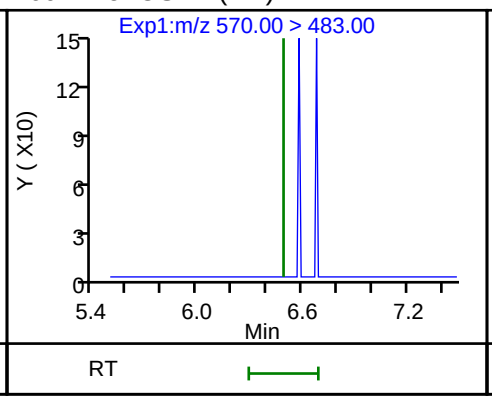
D 61 d3-NMeFOSAA



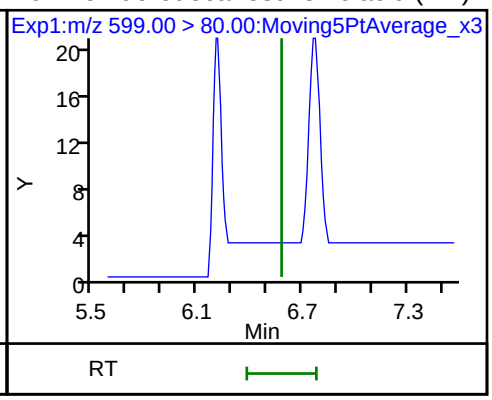
60 NMeFOSAA (ND)



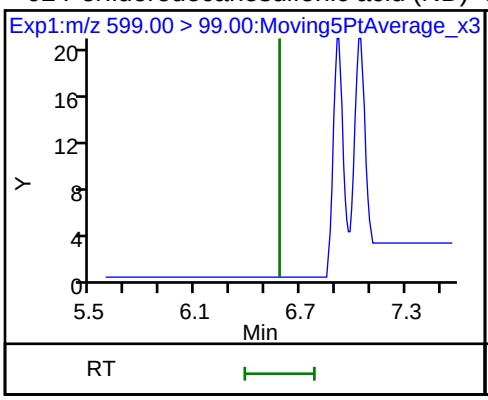
60 NMeFOSAA (ND)



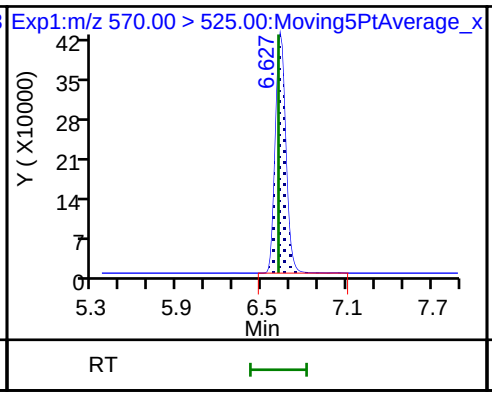
62 Perfluorodecanesulfonic acid (ND)



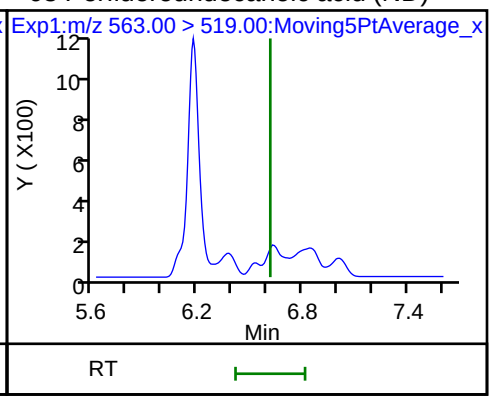
62 Perfluorodecanesulfonic acid (ND)



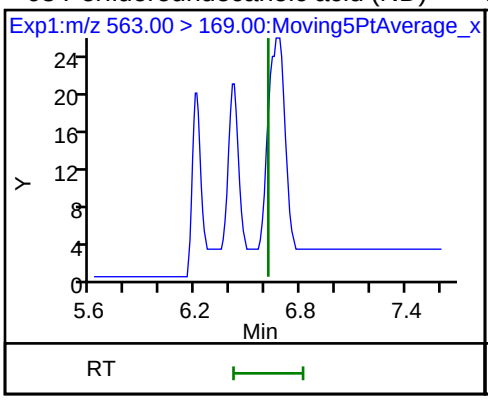
D 65 13C7 PFUnA



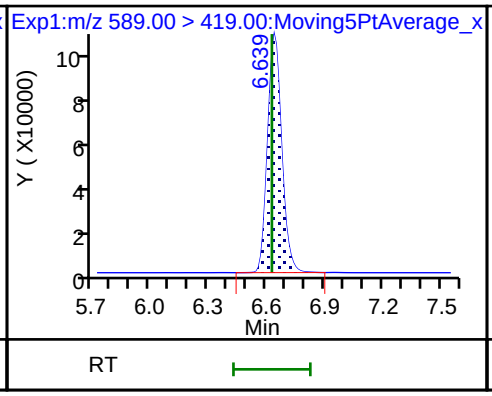
63 Perfluoroundecanoic acid (ND)



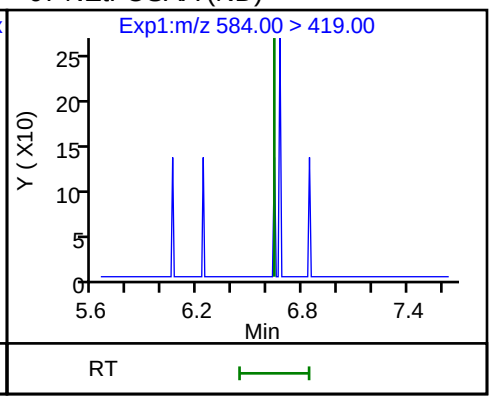
63 Perfluoroundecanoic acid (ND)



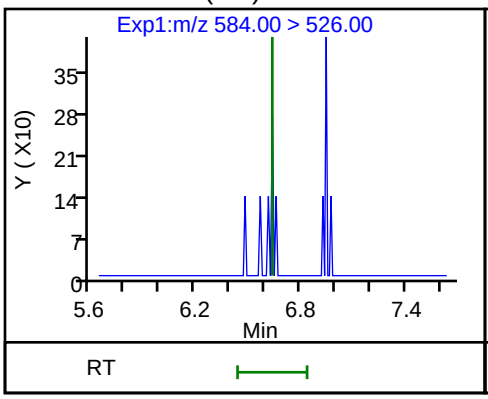
D 66 d5-NEtFOSAA



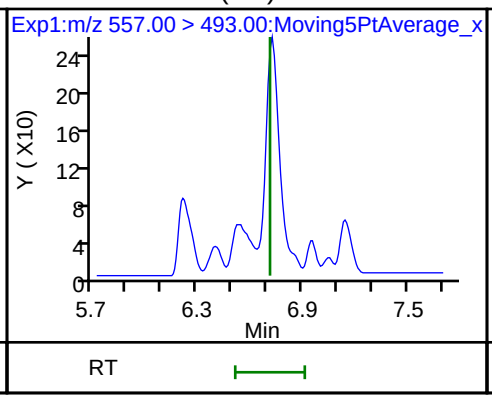
67 NEtFOSAA (ND)



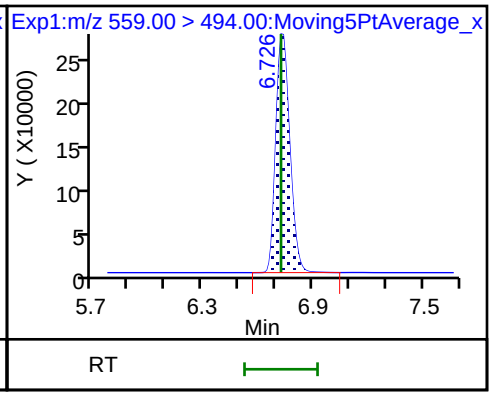
67 NEtFOSAA (ND)



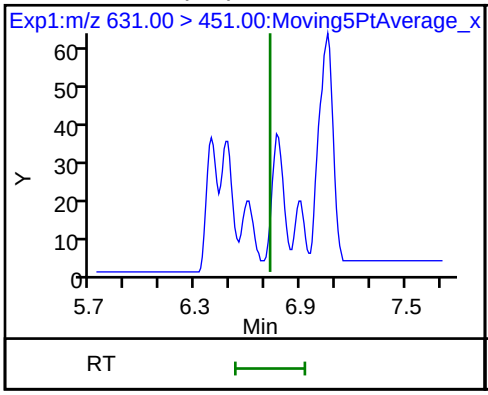
68 10:2 FTUCA (ND)



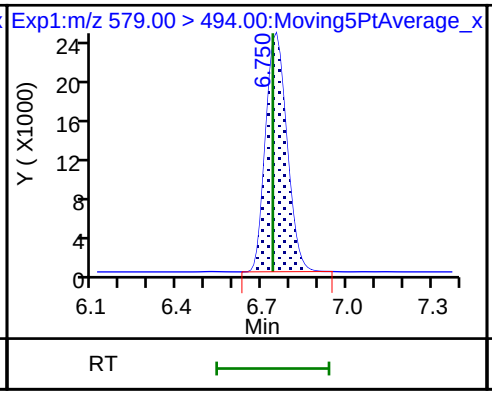
D 70 13C-10:2 FTUCA



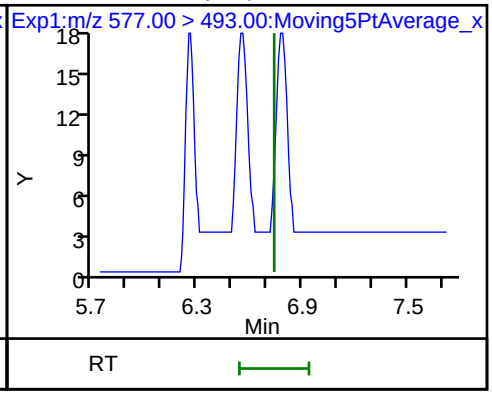
69 11ClFOS (ND)



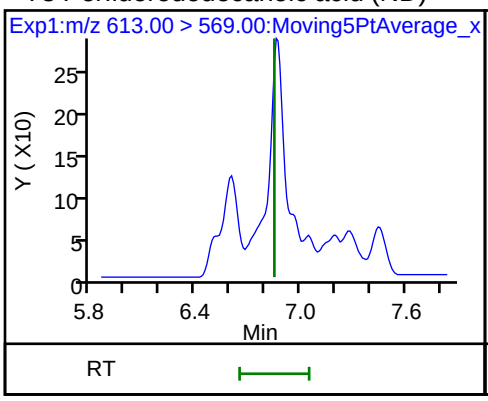
D 72 13C-10:2 FTCA



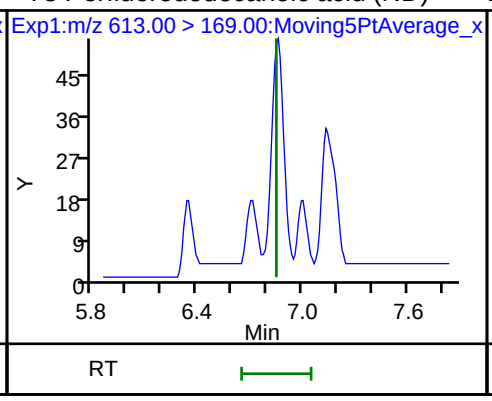
71 10:2 FTCA (ND)



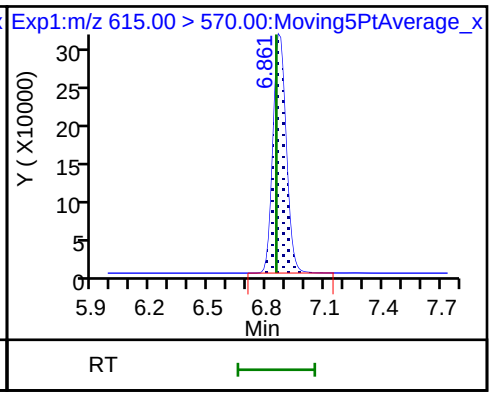
73 Perfluorododecanoic acid (ND)



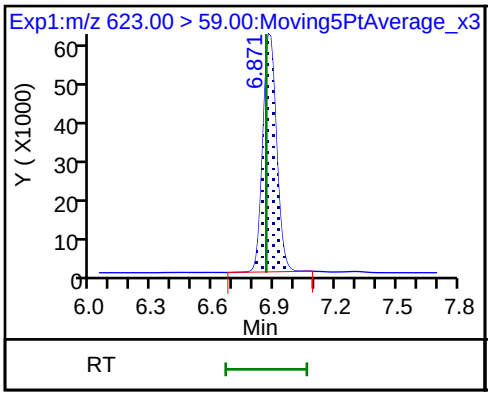
73 Perfluorododecanoic acid (ND)



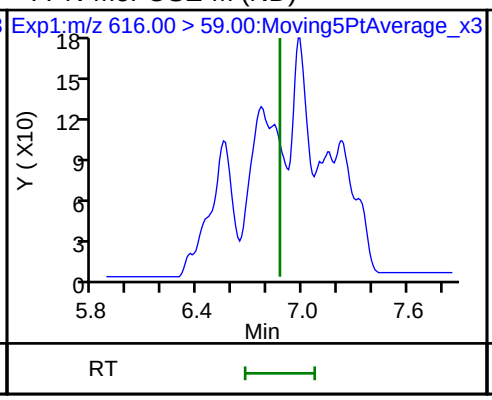
D 74 13C2-PFDoDA



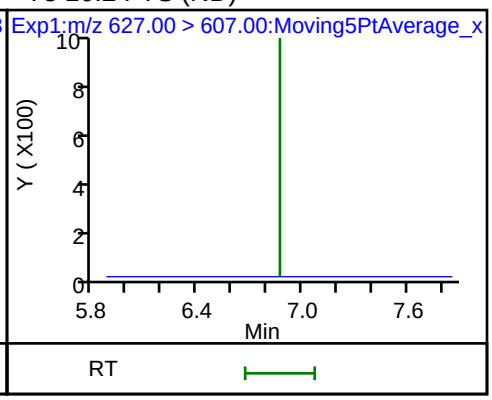
D 76 d7-N-MeFOSE-M



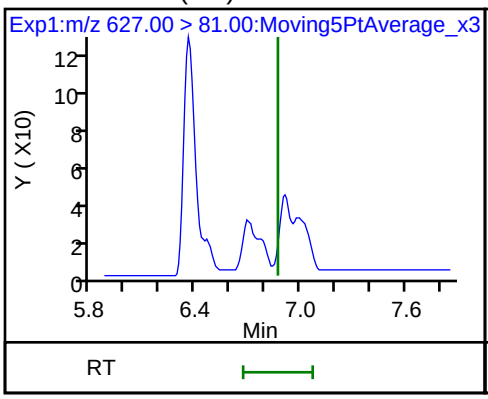
77 N-MeFOSE-M (ND)



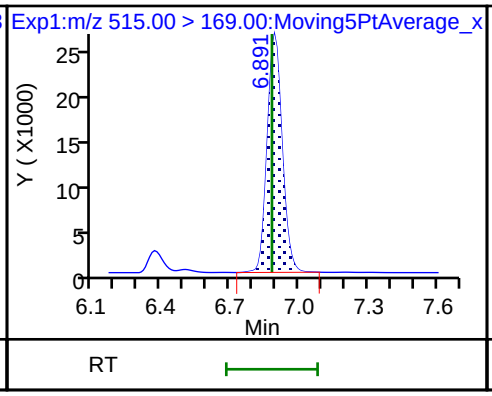
75 10:2 FTS (ND)



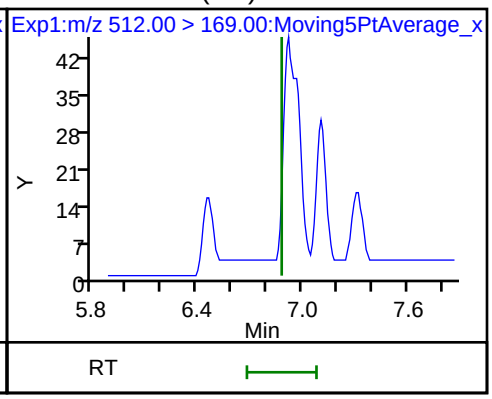
75 10:2 FTS (ND)



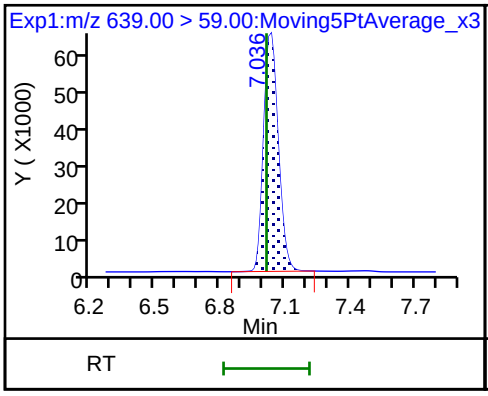
D 79 d3-NMePFOSA



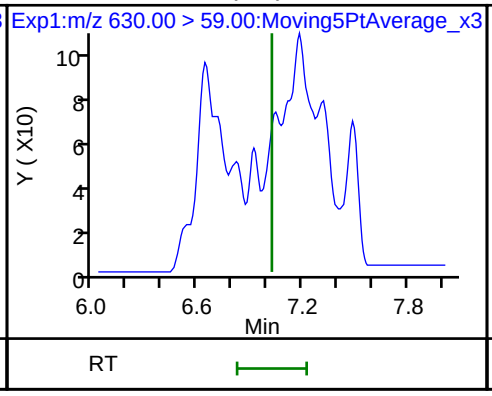
78 NMeFOSA (ND)



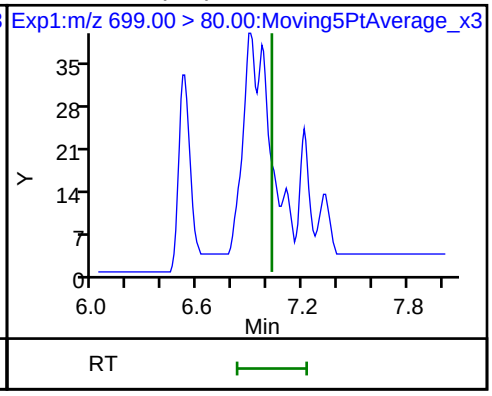
D 81 d9-N-EtFOSE-M



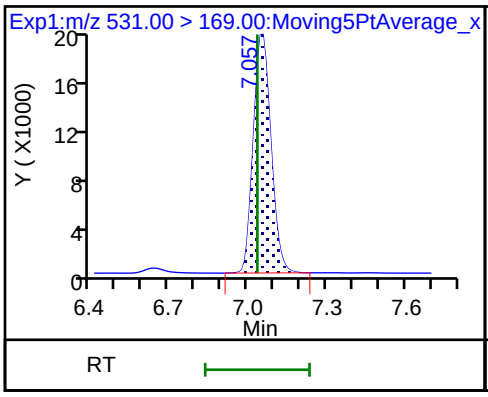
82 N-EtFOSE-M (ND)



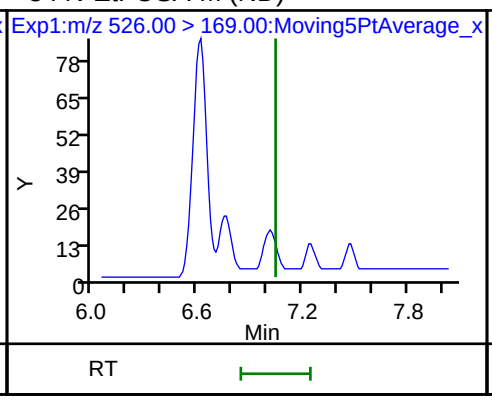
80 PFDoS (ND)



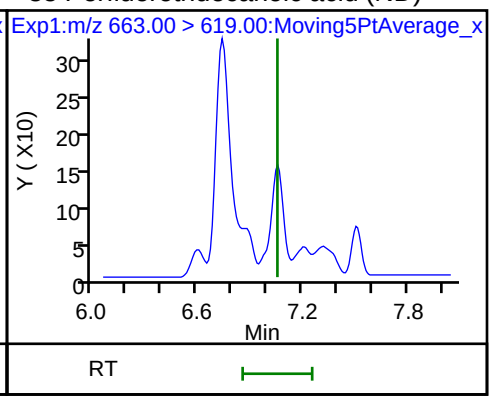
D 83 d5-NEtPFOSA



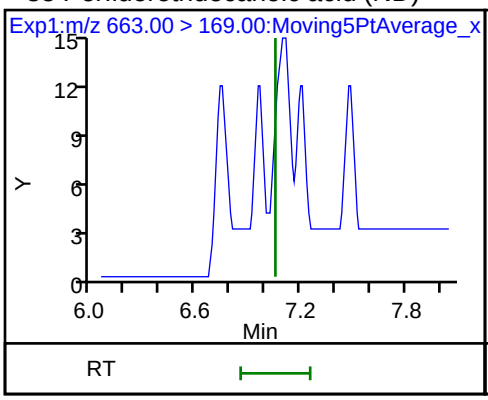
84 N-EtFOSA-M (ND)



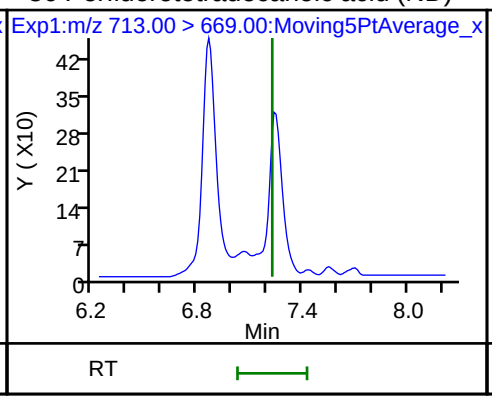
85 Perfluorotridecanoic acid (ND)



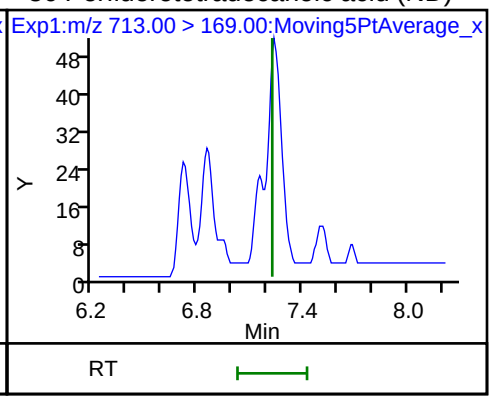
85 Perfluorotridecanoic acid (ND)



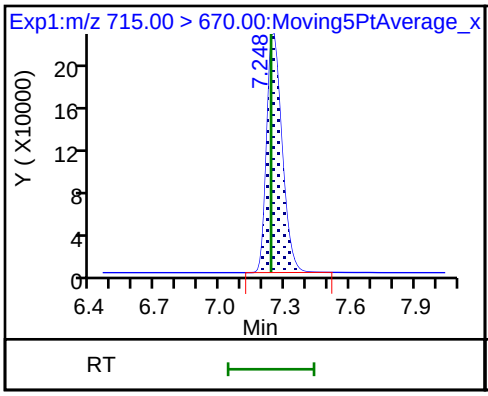
86 Perfluorotetradecanoic acid (ND)



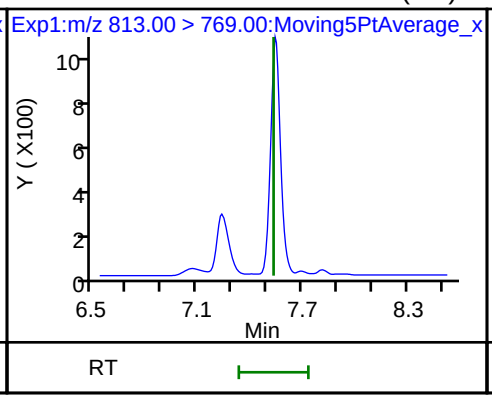
86 Perfluorotetradecanoic acid (ND)



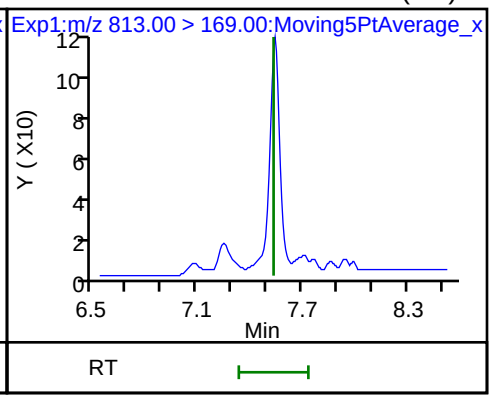
D 87 13C2 PFTeDA



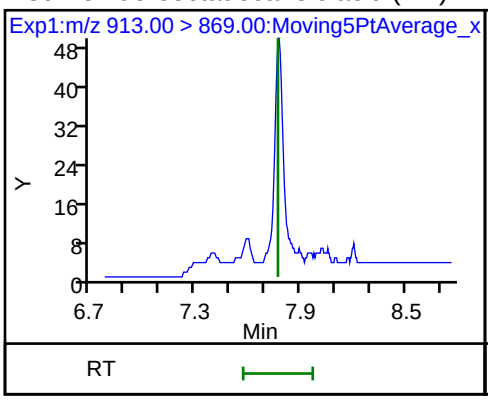
88 Perfluorohexadecanoic acid (ND)



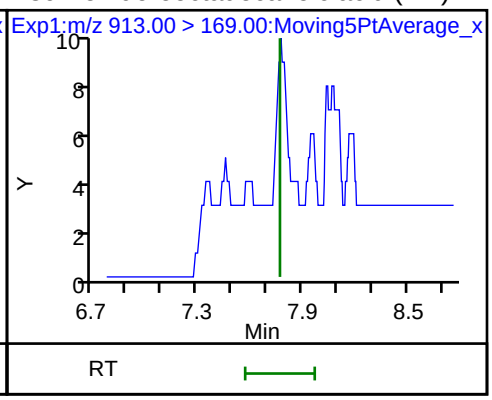
88 Perfluorohexadecanoic acid (ND)



89 Perfluorooctadecanoic acid (ND)



89 Perfluorooctadecanoic acid (ND)



FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 410-228569/1-B
Matrix: Solid
Lab File ID: 22MAR02-13.d
Analysis Method: 537 IDA
Date Collected:
Extraction Method: SHAKE
Date Extracted: 03/01/2022 07:26
Sample wt/vol: 10.00(g)
Date Analyzed: 03/02/2022 10:38
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 4(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 229099
Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	ND		0.060	0.020
375-85-9	Perfluoroheptanoic acid	ND		0.060	0.020
335-67-1	Perfluorooctanoic acid	ND		0.060	0.020
375-95-1	Perfluorononanoic acid	ND		0.060	0.020
335-76-2	Perfluorodecanoic acid	ND		0.060	0.020
72629-94-8	Perfluorotridecanoic acid	ND		0.060	0.020
376-06-7	Perfluorotetradecanoic acid	ND		0.060	0.020
375-73-5	Perfluorobutanesulfonic acid	ND		0.20	0.040
355-46-4	Perfluorohexanesulfonic acid	ND		0.060	0.020
1763-23-1	Perfluorooctanesulfonic acid	ND		0.060	0.020
2991-50-6	NEtFOSAA	ND		0.20	0.020
2355-31-9	NMeFOSAA	ND		0.20	0.020
375-92-8	Perfluoroheptanesulfonic acid	ND		0.060	0.020
335-77-3	Perfluorodecanesulfonic acid	ND		0.060	0.020
754-91-6	Perfluorooctanesulfonamide	ND		0.060	0.020
375-22-4	Perfluorobutanoic acid	ND		0.20	0.080
2058-94-8	Perfluoroundecanoic acid	ND		0.060	0.020
307-55-1	Perfluorododecanoic acid	ND		0.060	0.020
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.20	0.060
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.30	0.060
2706-90-3	Perfluoropentanoic acid	ND		0.060	0.020

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-228569/1-B

Matrix: Solid Lab File ID: 22MAR02-13.d

Analysis Method: 537 IDA Date Collected:

Extraction Method: SHAKE Date Extracted: 03/01/2022 07:26

Sample wt/vol: 10.00(g) Date Analyzed: 03/02/2022 10:38

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 4(uL) GC Column: Gemini C18 50mm ID: 3(mm)

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

Analysis Batch No.: 229099 Units: ng/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	103		15-200
STL02279	M2-6:2 FTS	110		10-200
STL02577	13C5 PFHxA	94		10-174
STL01892	13C4 PFHpA	93		10-178
STL01052	13C8 PFOA	96		26-159
STL02578	13C9 PFNA	86		26-165
STL02579	13C6 PFDA	93		26-161
STL02580	13C7 PFUnA	95		12-173
STL02703	13C2-PFDoDA	85		11-166
STL02116	13C2 PFTeDA	80		10-169
STL02337	13C3 PFBS	97		27-179
STL02581	13C3 PFHxS	94		24-171
STL01054	13C8 PFOS	90		41-154
STL02118	d3-NMeFOSAA	62		10-178
STL02117	d5-NEtFOSAA	72		10-193
STL01056	13C8 FOSA	81		14-163
STL00992	13C4 PFBA	87		28-153
STL01893	13C5 PFPeA	88		24-161

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-13.d
Lims ID: MB 410-228569/1-B
Client ID:
Sample Type: MB
Inject. Date: 02-Mar-2022 10:38:03 ALS Bottle#: 3 Worklist Smp#: 5
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: MB 410-228569/1-B
Misc. Info.: Plate: 1 Rack: 1 410-0051478-005
Operator ID: US19_USR_INS20261 Instrument ID: 30728

Method: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 10:20:58 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617

First Level Reviewer: glicka Date: 02-Mar-2022 12:06:44
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90		1.065				0				
1 MTP										
175.00 > 97.00		1.518				ND				
2 PPF Acid										
163.00 > 119.00		1.874				ND				
3 PFMOAA										
179.00 > 85.00		2.891				ND				
4 R-PSDA										
441.00 > 241.00		3.792				ND				
5 R-EVE										
405.00 > 217.00		3.793				ND				
D 6 13C4 PFBA										
217.00 > 172.00	3.822	3.816	0.006	1.000	4952322	8.72		87.2	106610	
7 Perfluorobutanoic acid										M
213.00 > 169.00	3.822	3.816	0.006	1.000	81856	0.1920			254	M
* 8 13C3-PFBA										
216.00 > 172.00	3.822	3.817	0.005		2627486	5.00			8071	
9 Hydrolyzed PSDA										
439.00 > 343.00		3.817				ND				
10 PMPA										
229.00 > 185.00		3.956				ND				
11 PFPrS										
249.00 > 99.00		4.020				ND				
12 NVHOS										
297.00 > 135.00		4.060				ND				
13 PFECA F										
229.00 > 85.00		4.082				0				

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
14 PFO2HxA										
245.00 > 85.00		4.286				ND				
15 3:3 FTCA										
241.00 > 177.00		4.403				ND				
16 Perfluoropentanoic acid										
263.00 > 219.00		4.404				ND				
D 17 13C5 PFPeA										
268.00 > 223.00	4.406	4.404	0.002	1.153	4044614	8.79		87.9	75878	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00		4.460				0				
299.00 > 99.00		4.460								
D 19 13C3 PFBS										
302.00 > 80.00	4.463	4.462	0.001	1.168	4179887	8.99		96.6	293435	
20 PEPA										
279.00 > 235.00		4.517				ND				
21 PFECA A										
279.00 > 85.00		4.543				ND				
22 PES										
315.00 > 135.00		4.638				ND				
23 PFECA B										
201.00 > 85.00		4.771				ND				
295.00 > 201.00		4.771								
110 FBSA										
299.00 > 78.00		4.792				ND				
24 4:2 FTS										
327.00 > 307.00		4.803				ND				
327.00 > 81.00		4.803								
D 25 M2-4:2 FTS										
329.00 > 81.00	4.816	4.806	0.010	0.854	867761	11.8		127	43505	
26 Perfluorohexanoic acid										
313.00 > 269.00		4.843				ND				
313.00 > 119.00		4.843								
D 27 13C5 PFHxA										
318.00 > 273.00	4.856	4.846	0.010	0.861	5651613	9.38		93.8	219662	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00		4.863				ND				
349.00 > 99.00		4.863								
29 PFO3OA										
311.00 > 85.00		4.903				ND				
30 HFPO-DA										
329.00 > 285.00		4.978				ND				
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.988	4.983	0.005	0.885	1264917	8.94		89.4	83728	
32 Hydro-EVE Acid										
427.00 > 283.00		5.201				0				
33 R-PSDCA										
397.00 > 217.00		5.209				ND				

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
108 FBSEE										
386.00 > 166.00		5.220				ND				
386.00 > 80.00		5.220								
34 Hydro-PS Acid										
463.00 > 263.00		5.246				ND				
35 Perfluorohexanesulfonic acid										
399.00 > 80.00		5.254				ND				
399.00 > 99.00		5.254								
36 Perfluoroheptanoic acid										
363.00 > 319.00		5.254				0				
363.00 > 169.00		5.254								
D 37 13C3 PFHxS										
402.00 > 80.00	5.266	5.254	0.012	0.934	3807096	8.89		94.0	175455	
D 38 13C4 PFHpA										
367.00 > 322.00	5.266	5.255	0.011	0.934	6054388	9.32		93.2	186972	
39 DONA										
377.00 > 251.00		5.303				ND				
40 PFECA G										
379.00 > 185.00		5.322				ND				
41 5:3 FTCA										
341.00 > 237.00		5.338				ND				
341.00 > 217.00		5.338								
42 6:2 FTUCA										
357.00 > 293.00		5.359				0				
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.369	5.361	0.008	0.952	2975568	8.40		84.0	121419	
44 6:2 FTCA										
377.00 > 293.00		5.378				ND				
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.387	5.379	0.008	0.955	370317	6.64		66.4	25804	
46 PFO4DA										
377.00 > 85.00		5.435				ND				
47 PS Acid										
443.00 > 147.00		5.479				ND				
48 EVE Acid										
407.00 > 263.00		5.500				ND				
49 PFECHS										
461.00 > 381.00		5.569				ND				
461.00 > 99.00		5.569								
50 6:2 FTS										
427.00 > 407.00		5.613				0				
427.00 > 81.00		5.613								
D 52 M2-6:2 FTS										
429.00 > 81.00	5.620	5.614	0.006	0.997	273055	10.4		110	13707	
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00		5.618				ND				
449.00 > 99.00		5.618								

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 Perfluorooctanoic acid										
413.00 > 369.00		5.630				ND				
413.00 > 169.00		5.630								
D 54 13C8 PFOA										
421.00 > 376.00	5.638	5.631	0.007	1.000	6123010	9.63		96.3	210534	
* 55 13C2 PFOA										
415.00 > 370.00	5.638	5.631	0.007		2597308	5.00			177082	
106 FHxSA										
399.00 > 78.00		5.692				ND				
56 TAF										
443.00 > 85.00		5.879				ND				
57 Perfluorooctanesulfonic acid										
499.00 > 80.00		5.954				ND				
499.00 > 99.00		5.954								
* 59 13C4 PFOS										
503.00 > 80.00	5.961	5.955	0.006		2447997	4.78			105321	
D 58 13C8 PFOS										
507.00 > 80.00	5.961	5.955	0.006	1.000	4254894	8.58		89.7	82650	
61 Perfluorononanoic acid										
463.00 > 419.00		5.973				ND				
463.00 > 169.00		5.973								
D 60 13C9 PFNA										
472.00 > 427.00	5.979	5.975	0.004	1.003	4191068	8.63		86.3	149773	
109 HFPO-TrA										
496.00 > 185.00		6.068				ND				
62 7:3 FTCA										
441.00 > 337.00		6.077				ND				
63 8:2 FTUCA										
457.00 > 393.00		6.084				0				
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.088	6.085	0.003	0.969	3192108	9.19		91.9	131525	
65 8:2 FTCA										
477.00 > 393.00		6.099				ND				
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.108	6.102	0.006	0.972	294364	7.53		75.3	20171	
67 9ClFOS										
531.00 > 351.00		6.130				ND				
68 Perfluorononanesulfonic acid										
549.00 > 80.00		6.254				ND				
549.00 > 99.00		6.254								
69 Perfluorodecanoic acid										
513.00 > 469.00		6.279				ND				
513.00 > 169.00		6.279								
D 71 13C6 PFDA										
519.00 > 474.00	6.286	6.282	0.004	1.000	5064007	9.32		93.2	270844	
* 70 13C2 PFDA										
515.00 > 470.00	6.286	6.282	0.004		2847619	5.00			151245	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
72 8:2 FTS										
527.00 > 507.00		6.282				ND				
527.00 > 81.00		6.282								
D 73 M2-8:2 FTS										
529.00 > 81.00	6.294	6.285	0.009	1.001	138868	9.85		103	9617	
75 Perfluorooctanesulfonamide										
498.00 > 78.00		6.371				0				
D 74 13C8 FOSA										
506.00 > 78.00	6.369	6.375	-0.006	1.013	5673246	8.09		80.9	273632	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.431	6.428	0.003	1.023	954347	6.24		62.4	45930	
76 NMeFOSAA										
570.00 > 419.00		6.429				ND				
570.00 > 483.00		6.429								
78 Perfluorodecanesulfonic acid										
599.00 > 80.00		6.522				ND				
599.00 > 99.00		6.522								
79 Perfluoroundecanoic acid										
563.00 > 519.00		6.550				ND				
563.00 > 169.00		6.550								
D 80 13C7 PFUnA										
570.00 > 525.00	6.558	6.557	0.001	1.043	5450087	9.47		94.7	246440	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.569	6.569	0.0	1.045	783050	7.18		71.8	46113	
82 NEtFOSAA										
584.00 > 419.00		6.570				ND				
584.00 > 526.00		6.570								
83 10:2 FTUCA										
557.00 > 493.00		6.654				0				
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.661	6.660	0.001	1.060	2110872	6.91		69.1	96652	
84 11ClFOS										
631.00 > 451.00		6.660				ND				
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.671	6.670	0.001	1.061	167818	5.90		59.0	10103	
86 10:2 FTCA										
577.00 > 493.00		6.670				ND				
88 Perfluorododecanoic acid										
613.00 > 569.00		6.787				ND				
613.00 > 169.00		6.787								
D 89 13C2-PFDoDA										
615.00 > 570.00	6.799	6.796	0.003	1.082	3735088	8.52		85.2	228031	
90 10:2 FTS										
627.00 > 607.00		6.810				ND				
627.00 > 81.00		6.810								
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.810	6.813	-0.003	1.083	752166	6.59		65.9	7813	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 N-MeFOSE-M										
616.00 > 59.00		6.820				ND				
94 NMeFOSA										
512.00 > 169.00		6.829				ND				
D 93 d3-NMePFOSA										
515.00 > 169.00	6.831	6.829	0.002	1.087	342621	4.72		47.2	9336	
95 PFDoS										
699.00 > 80.00		6.967				ND				
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.968	6.973	-0.005	1.109	900390	6.96		69.6	11680	
97 N-EtFOSE-M										
630.00 > 59.00		6.981				ND				
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.987	6.995	-0.008	1.112	357689	5.30		53.0	10409	
100 N-EtFOSA-M										
526.00 > 169.00		6.996				ND				
99 Perfluorotridecanoic acid										
663.00 > 619.00		6.996				ND				
663.00 > 169.00		6.996								
105 HFPOTeA										
661.00 > 185.00		7.058				ND				
661.00 > 119.00		7.058								
101 Perfluorotetradecanoic acid										
713.00 > 669.00		7.181				ND				
713.00 > 169.00		7.181								
D 102 13C2 PFTeDA										
715.00 > 670.00	7.186	7.184	0.002	1.143	2838452	8.05		80.5	145570	
103 Perfluorohexadecanoic acid										
813.00 > 769.00		7.483				0				
813.00 > 169.00		7.483								
104 Perfluorooctadecanoic acid										
913.00 > 869.00		7.717				ND				
913.00 > 169.00		7.717								

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

PFC_IS_MOD_00279 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Mar-2022 12:25:04 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-13.d

Injection Date: 02-Mar-2022 10:38:03 Instrument ID: 30728

Lims ID: MB 410-228569/1-B

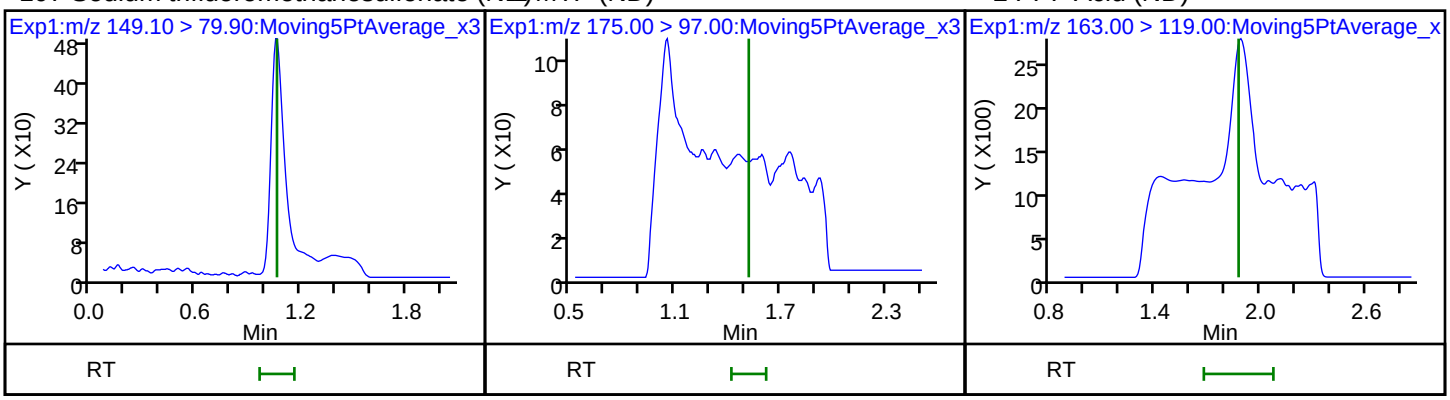
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 3 Worklist Smp#: 5

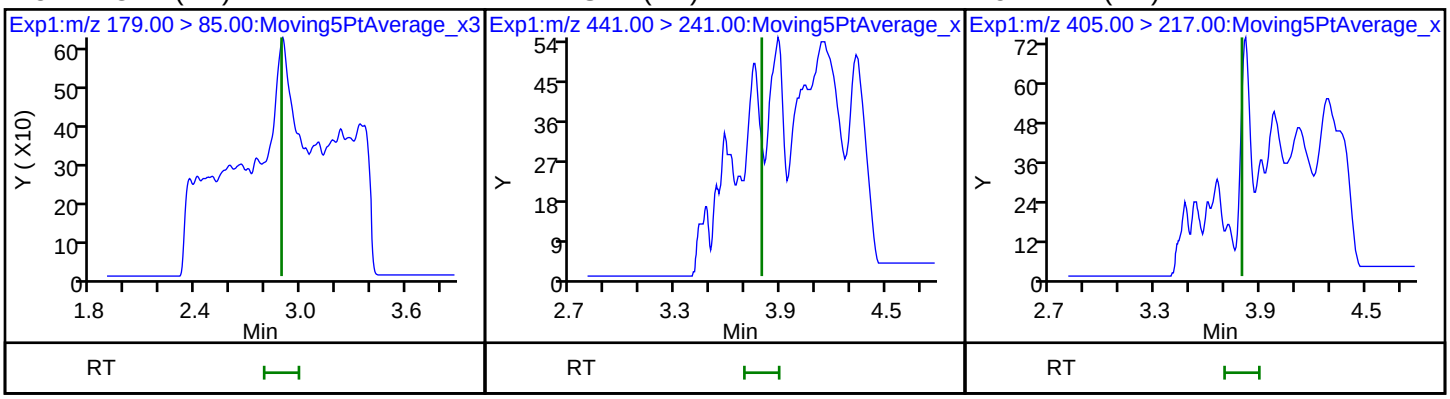
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

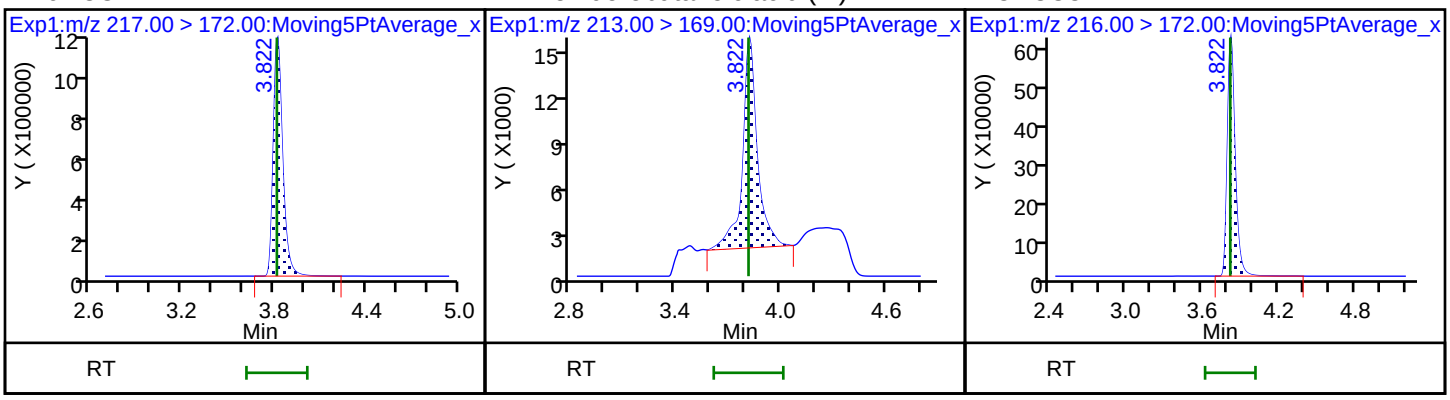
107 Sodium trifluoromethanesulfonate (ND) 1 MTP (ND) 2 PPF Acid (ND)



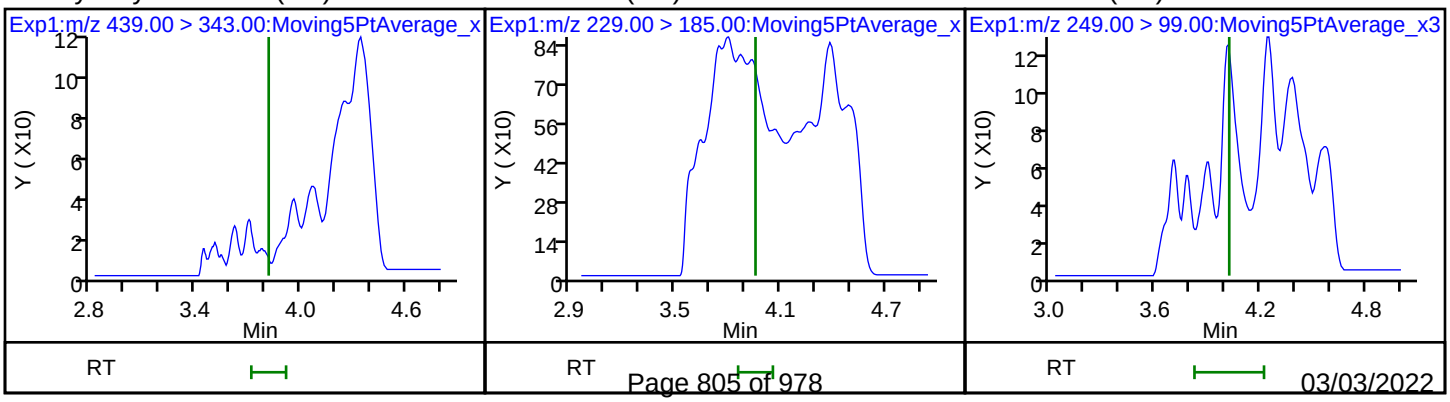
3 PFMOAA (ND) 4 R-PSDA (ND) 5 R-EVE (ND)



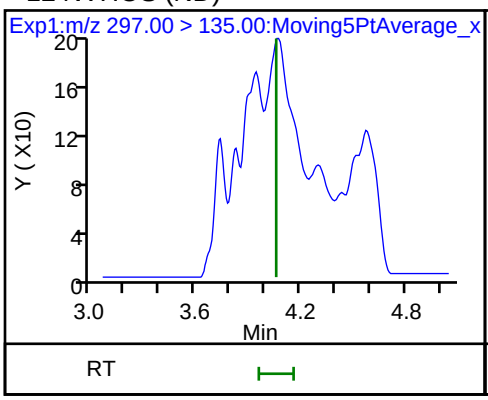
D 6 13C4 PFBA 7 Perfluorobutanoic acid (M) * 8 13C3-PFBA



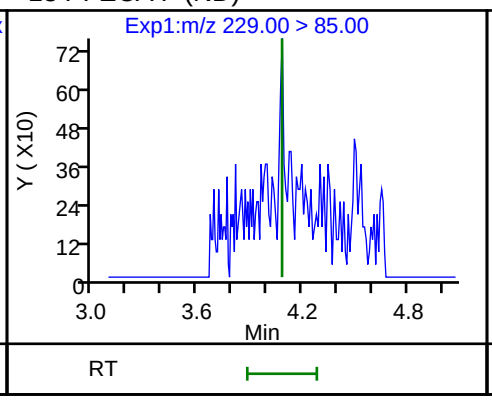
9 Hydrolyzed PSDA (ND) 10 PMPA (ND) 11 PFPrS (ND)



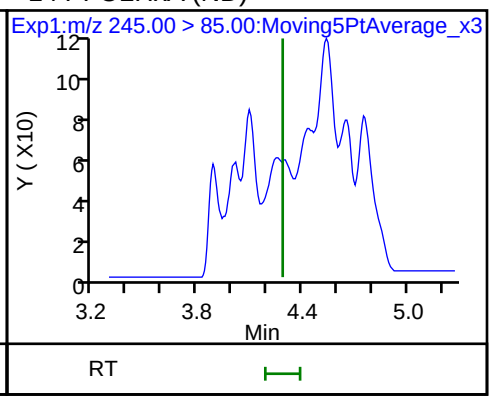
12 NVHOS (ND)



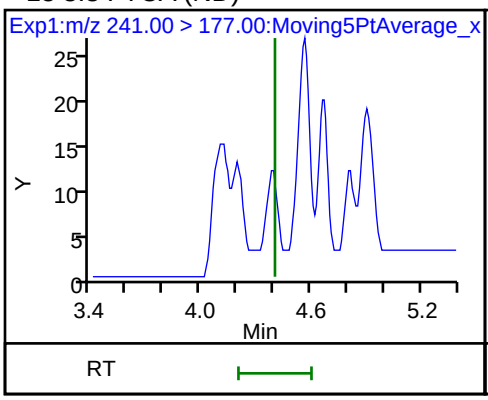
13 PFECA F (ND)



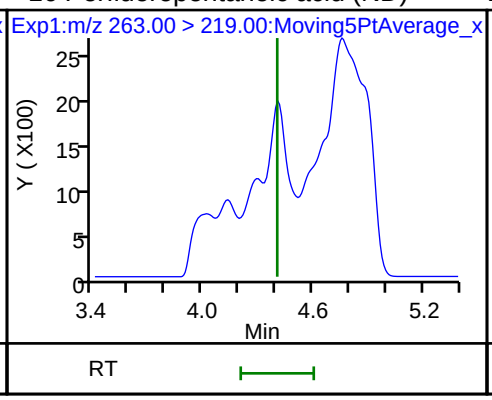
14 PFO2HxA (ND)



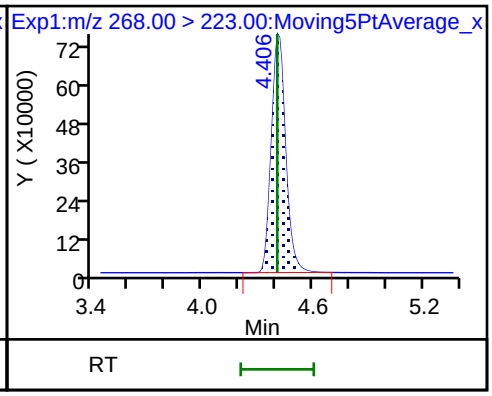
15 3:3 FTCA (ND)



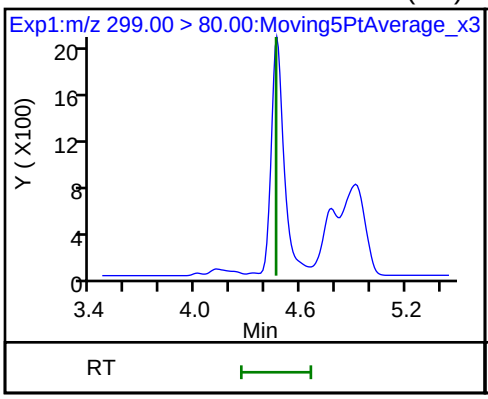
16 Perfluoropentanoic acid (ND)



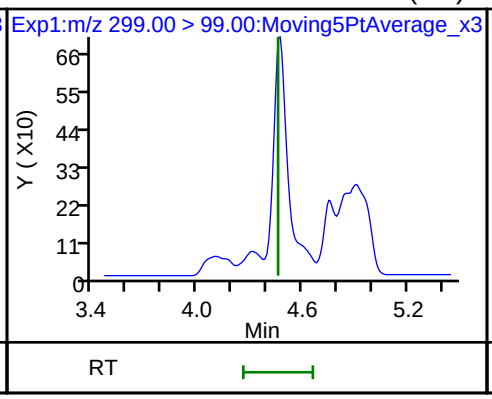
D 17 13C5 PFPeA



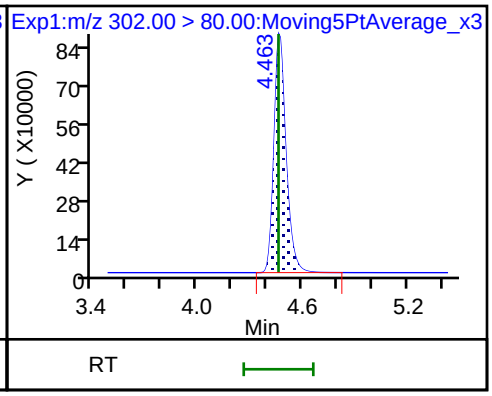
18 Perfluorobutanesulfonic acid (ND)



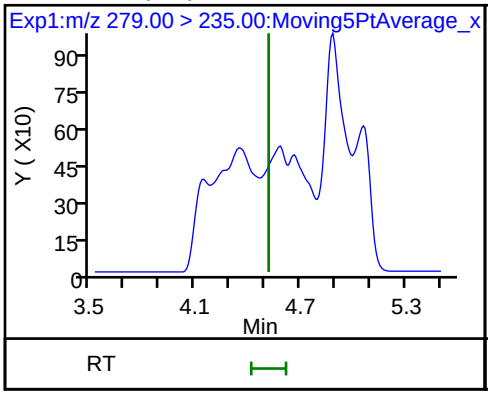
18 Perfluorobutanesulfonic acid (ND)



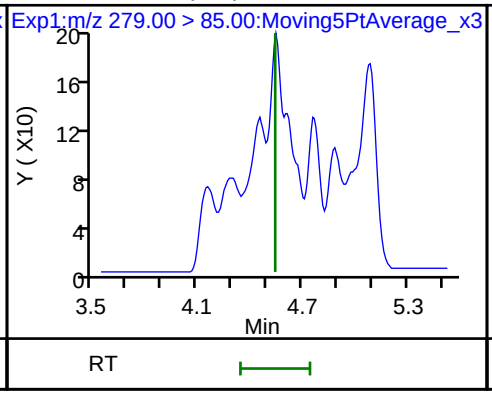
D 19 13C3 PFBS



20 PEPA (ND)



21 PFECA A (ND)



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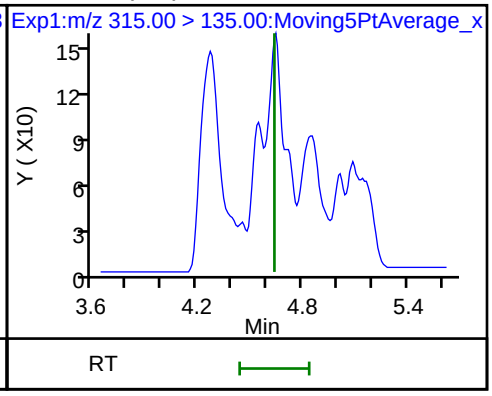

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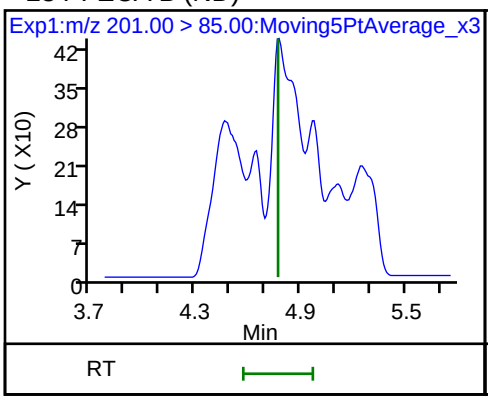

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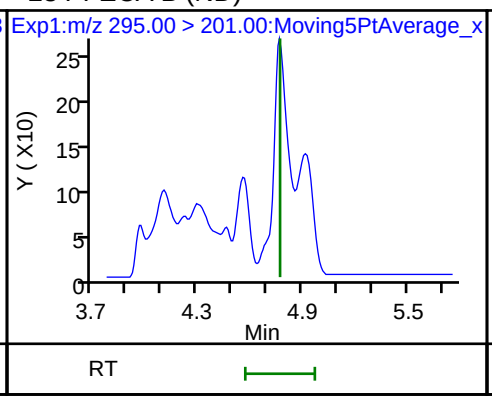
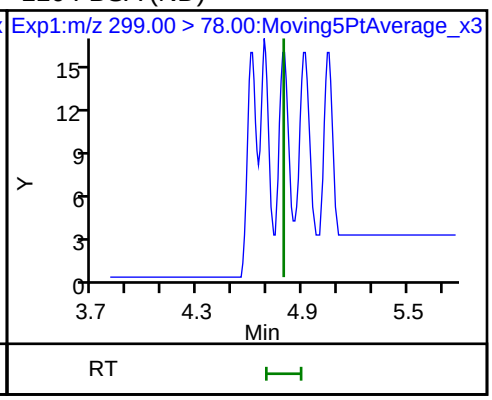
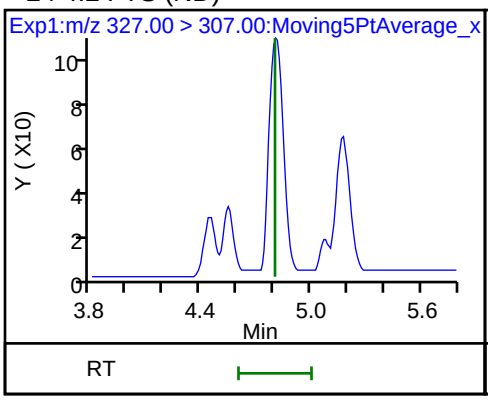


110 FBSA (ND)



24 4:2 FTS (ND)



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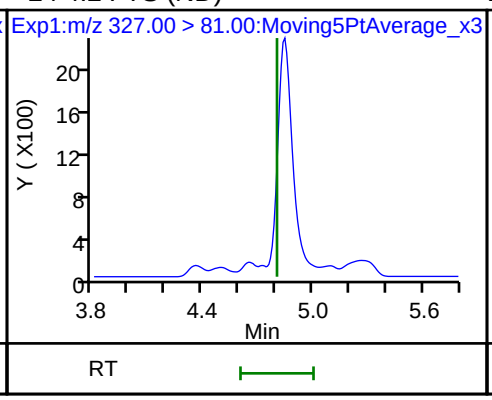
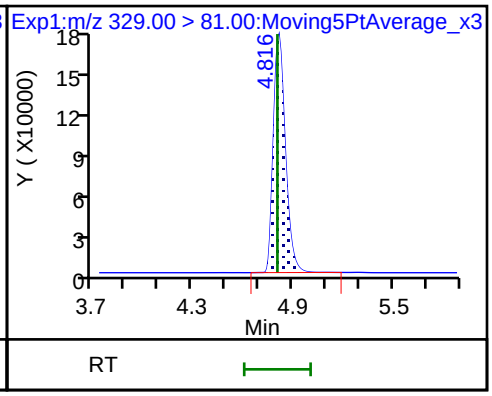
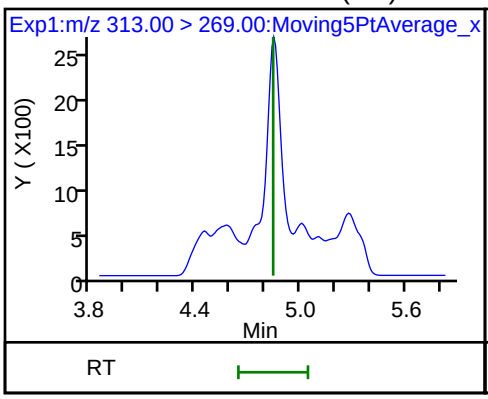


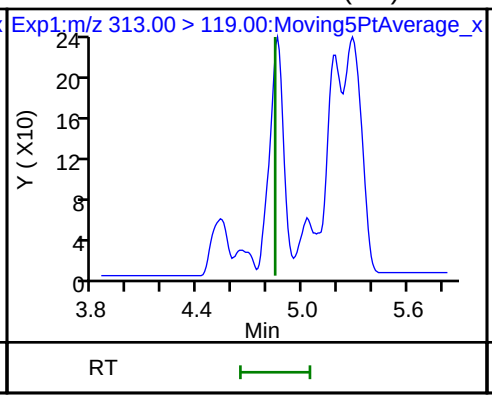
D 25 M2-4:2 FTS



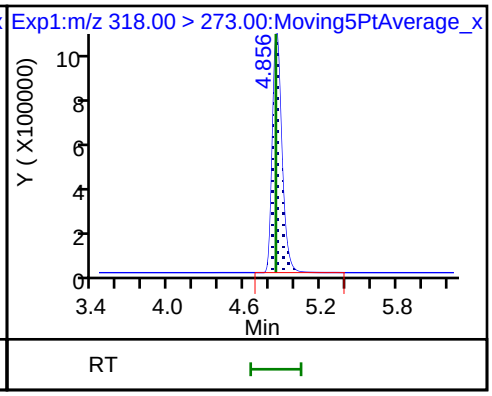
26 Perfluorohexanoic acid (ND)



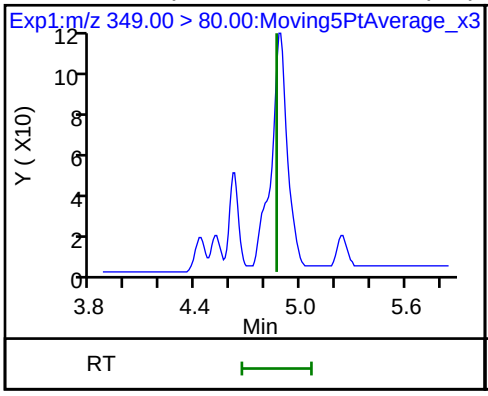
26 Perfluorohexanoic acid (ND)



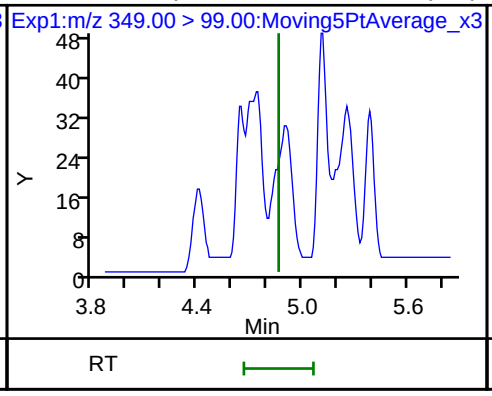
D 27 13C5 PFHxA



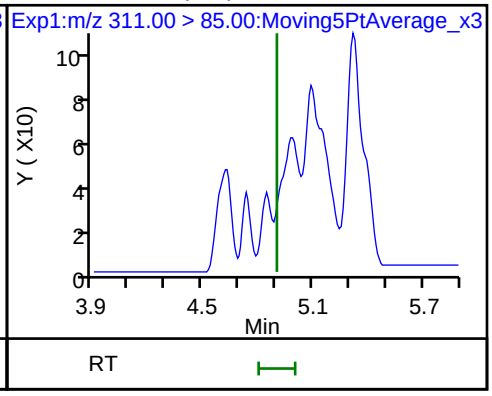
28 Perfluoropentanesulfonic acid (ND)



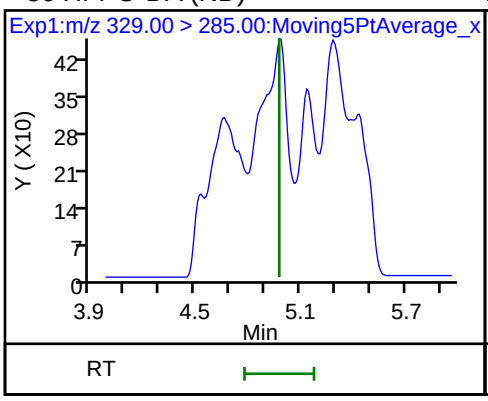
28 Perfluoropentanesulfonic acid (ND)



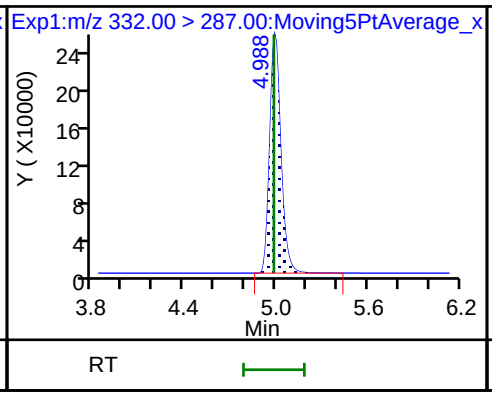
29 PFO3OA (ND)



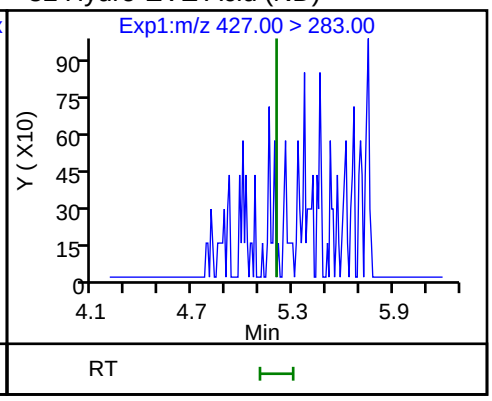
30 HFPO-DA (ND)



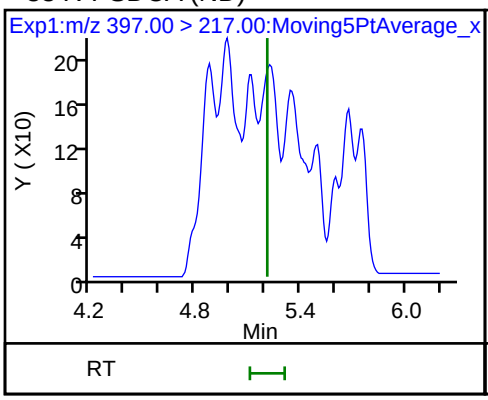
D 31 13C3 HFPO-DA



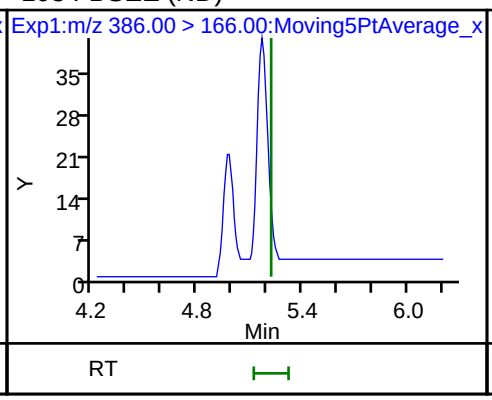
32 Hydro-EVE Acid (ND)



33 R-PSDCA (ND)



108 FBSEE (ND)



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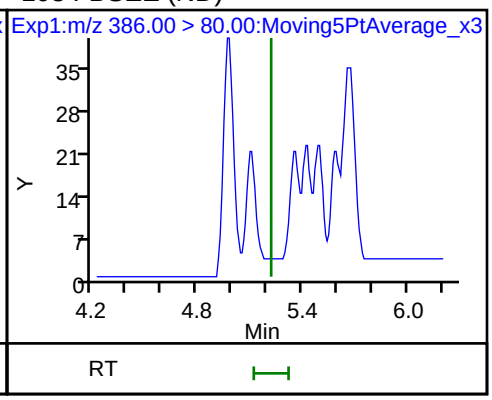
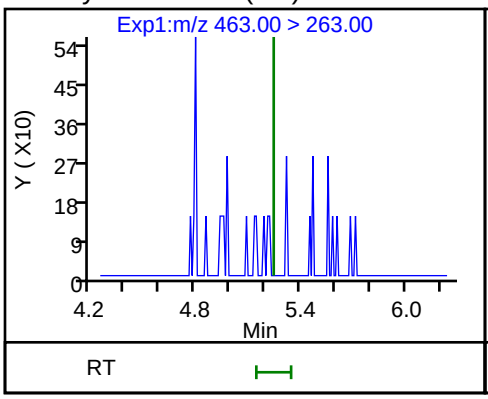
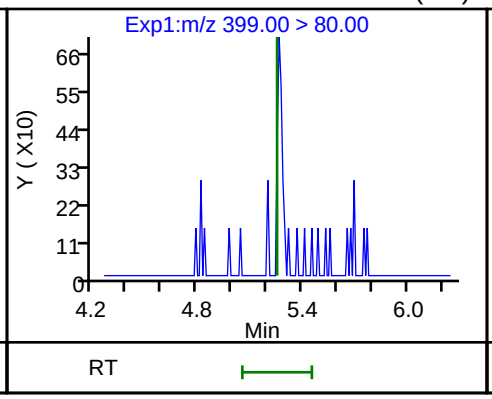


34 Hydro-PS Acid (ND)



35 Perfluorohexanesulfonic acid (ND)



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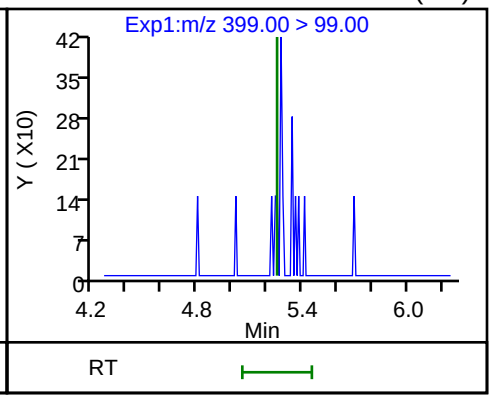
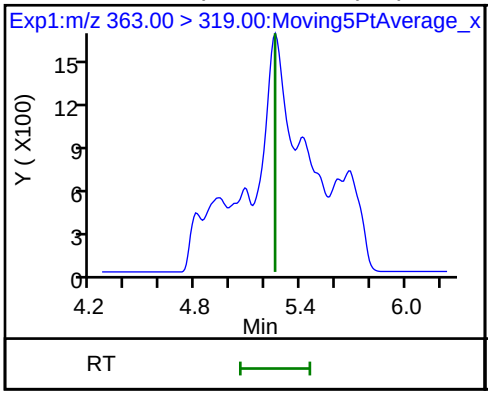
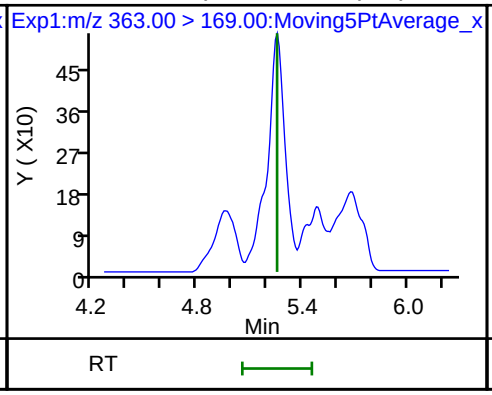


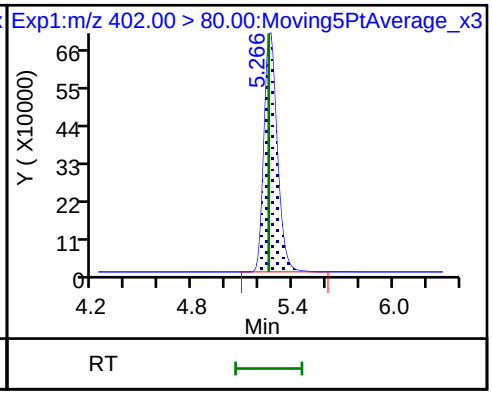
36 Perfluoroheptanoic acid (ND)



36 Perfluoroheptanoic acid (ND)



D 37 13C3 PFHxS



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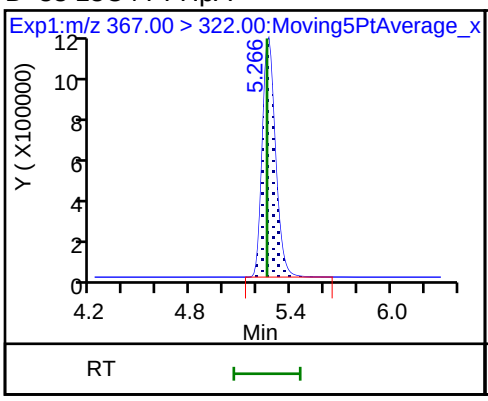

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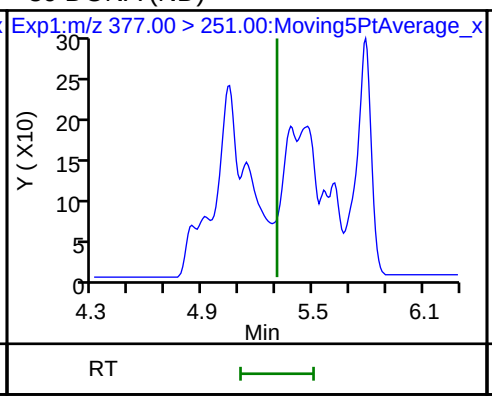

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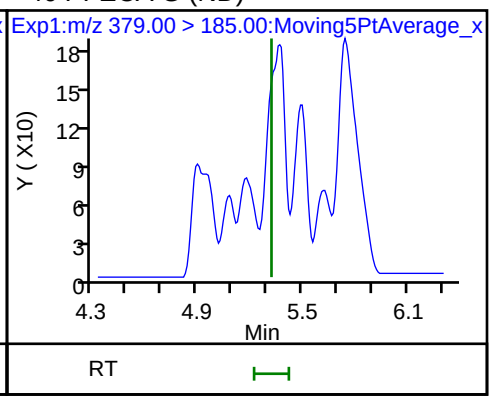
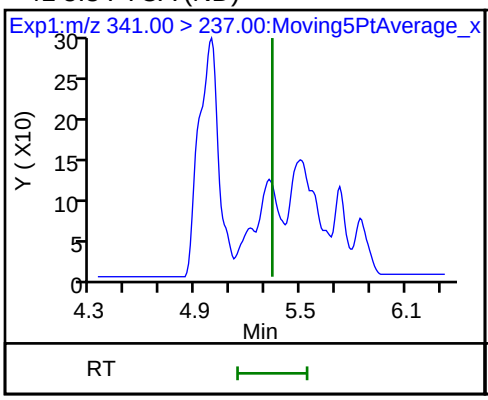


41 5:3 FTCA (ND)



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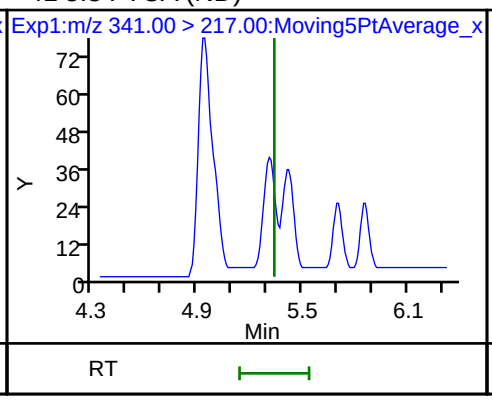
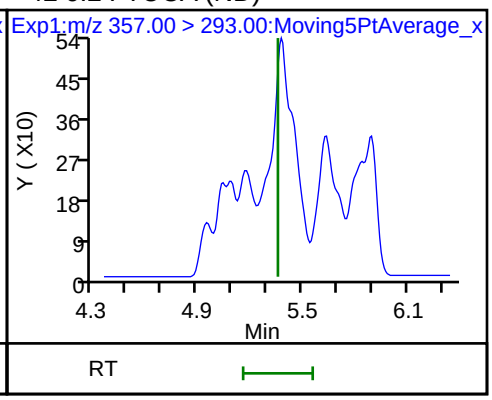
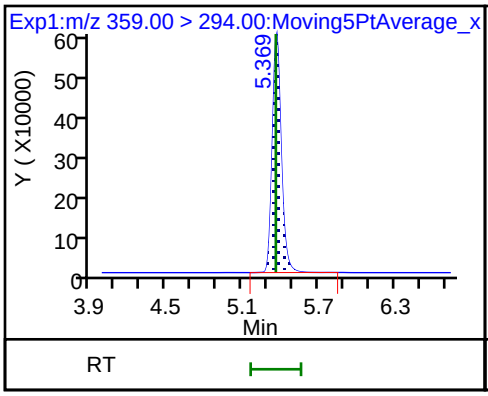


42 6:2 FTUCA (ND)



D 43 13C-6:2 FTUCA



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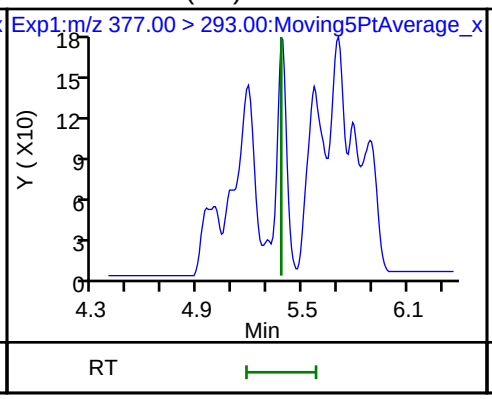
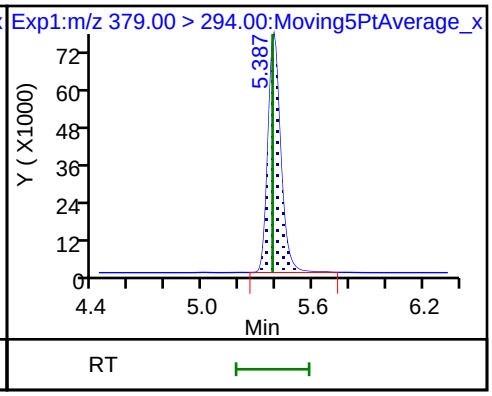
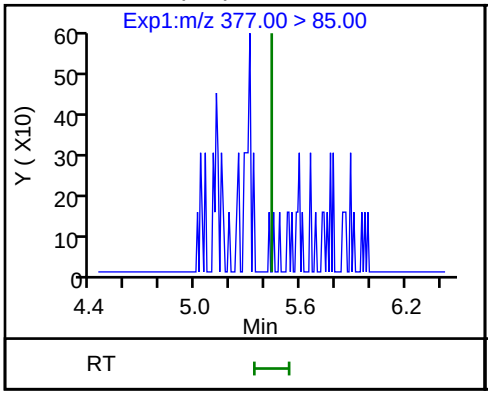


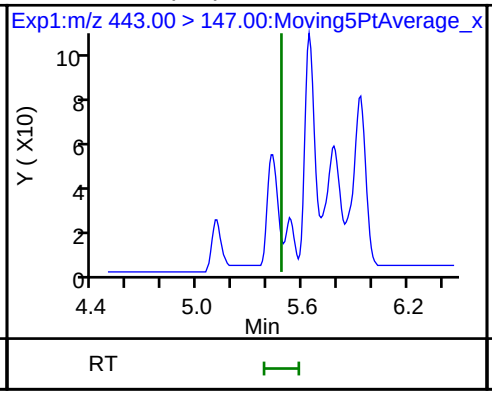
D 45 13C-6:2 FTCA



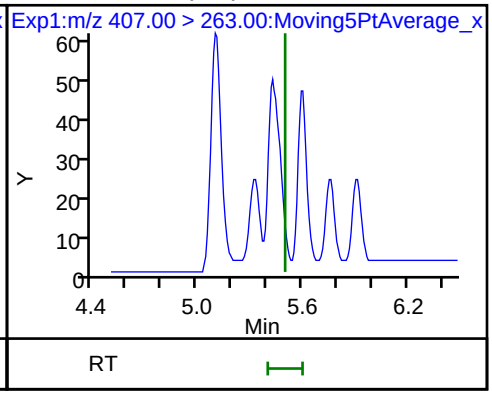
46 PFO4DA (ND)



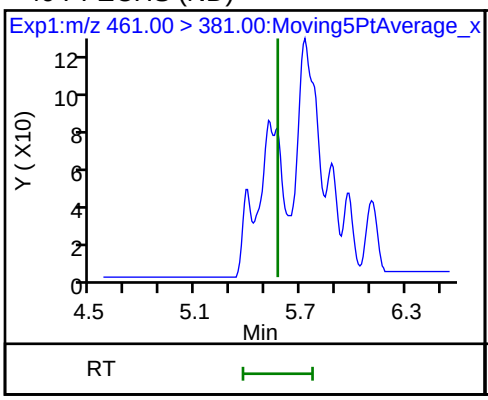
47 PS Acid (ND)



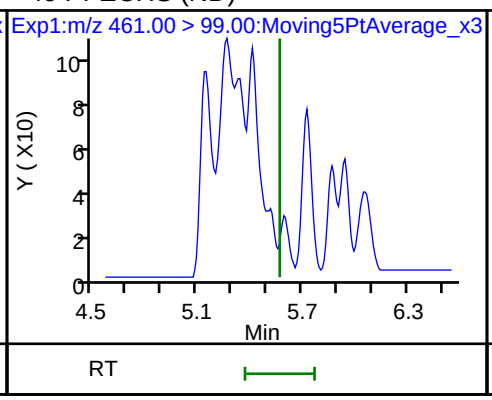
48 EVE Acid (ND)



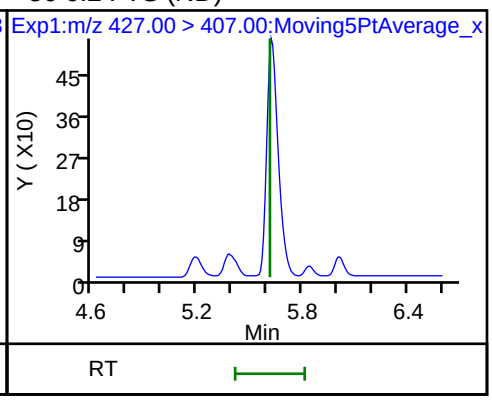
49 PFECHS (ND)



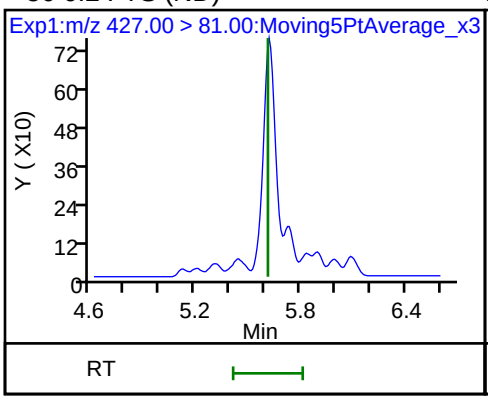
49 PFECHS (ND)



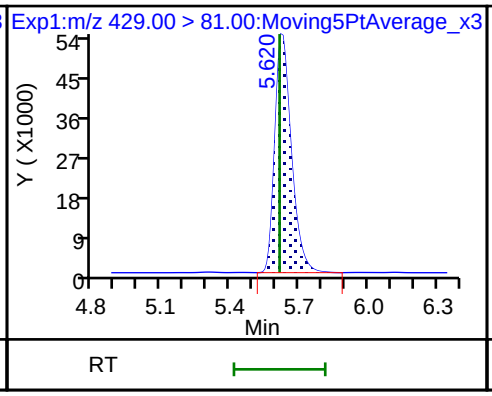
50 6:2 FTS (ND)



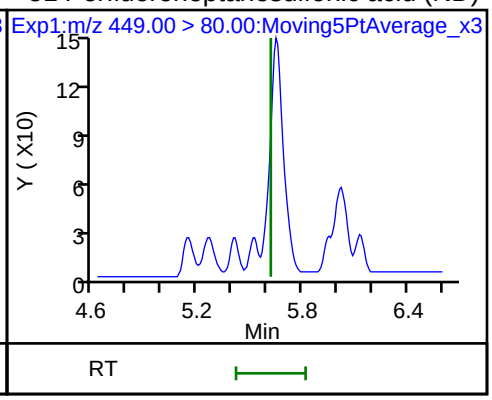
50 6:2 FTS (ND)



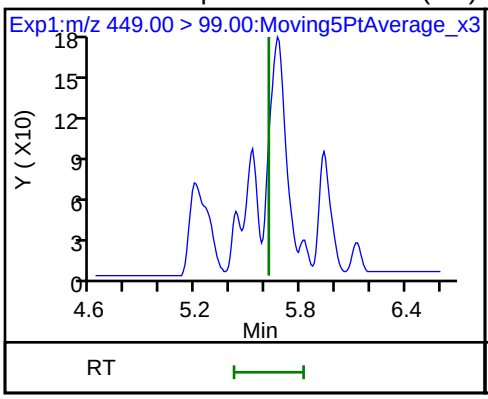
D 52 M2-6:2 FTS



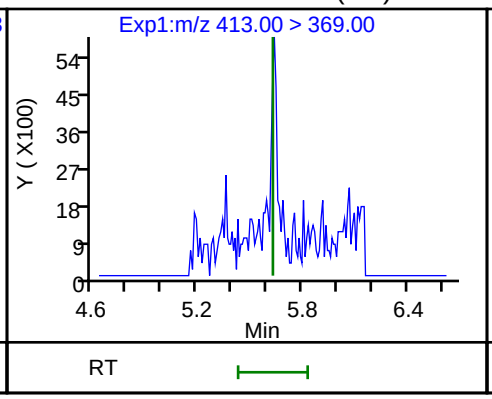
51 Perfluoroheptanesulfonic acid (ND)



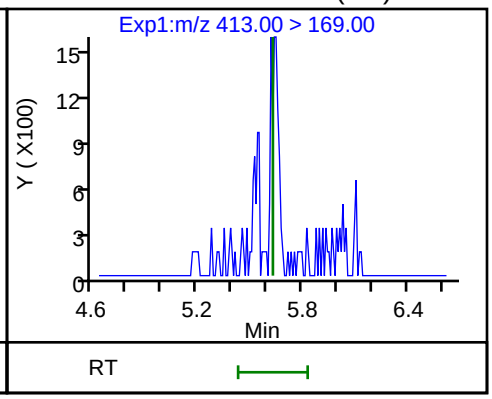
51 Perfluoroheptanesulfonic acid (ND)



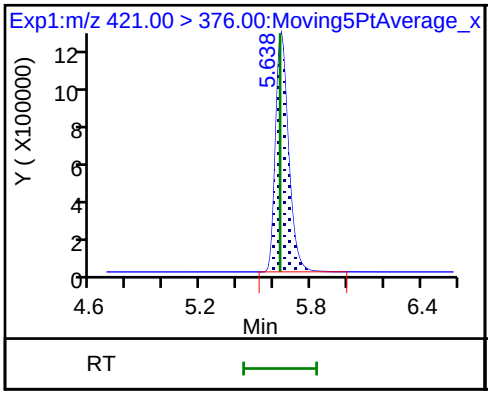
53 Perfluorooctanoic acid (ND)



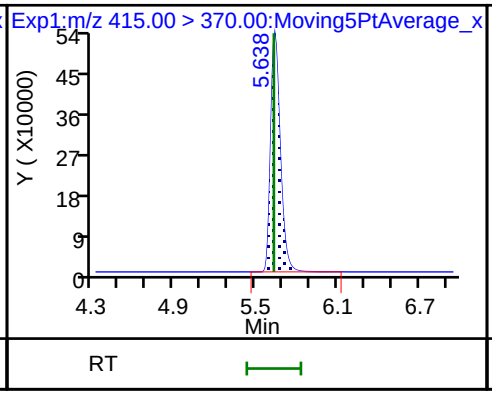
53 Perfluorooctanoic acid (ND)



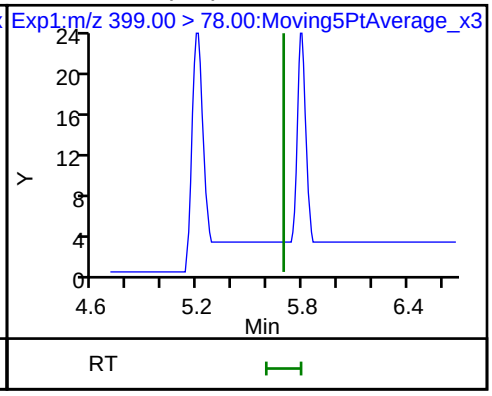
D 54 13C8 PFOA



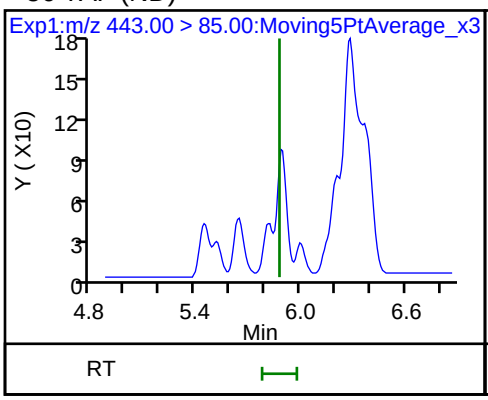
* 55 13C2 PFOA



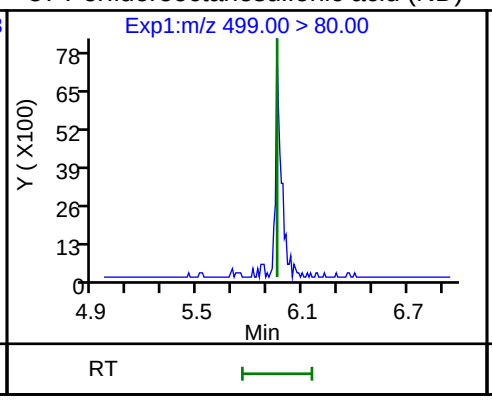
106 FHxSA (ND)



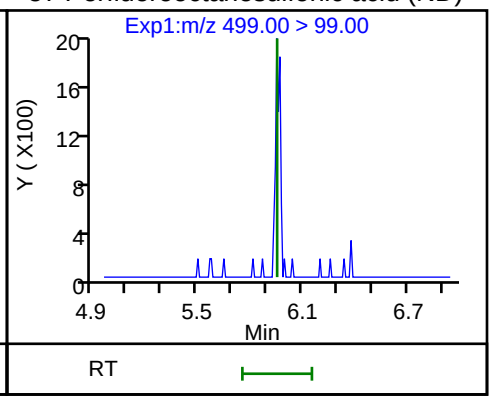
56 TAF (ND)



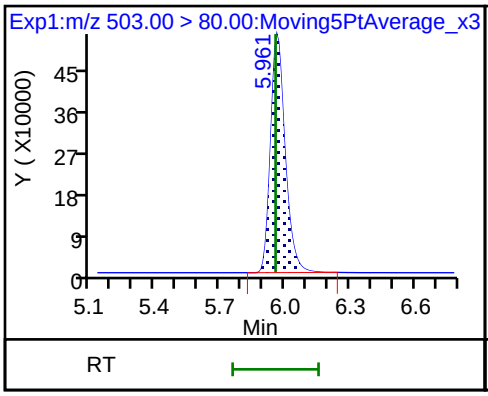
57 Perfluorooctanesulfonic acid (ND)



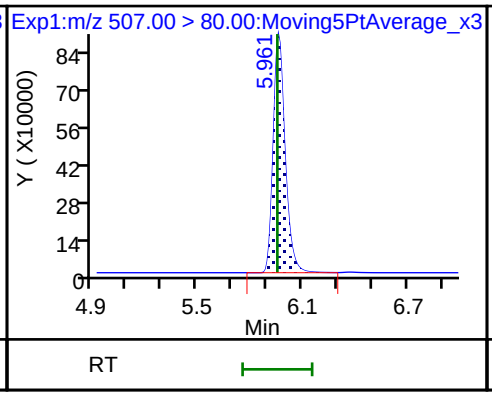
57 Perfluorooctanesulfonic acid (ND)



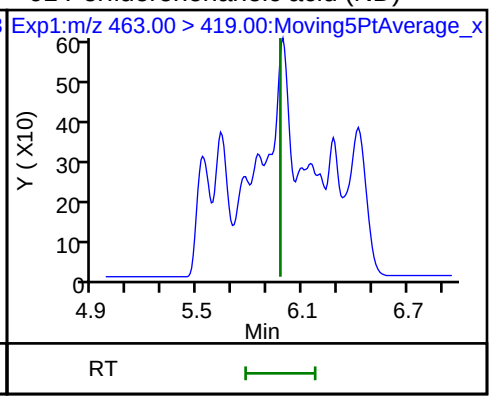
* 59 13C4 PFOS



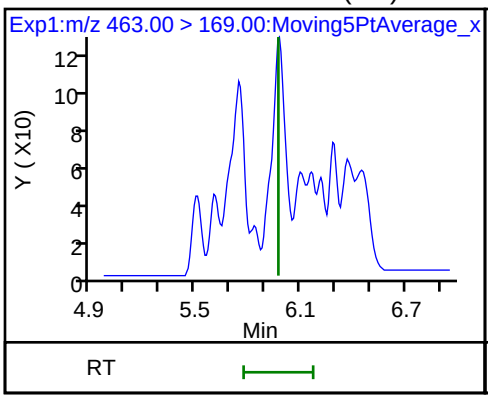
D 58 13C8 PFOS



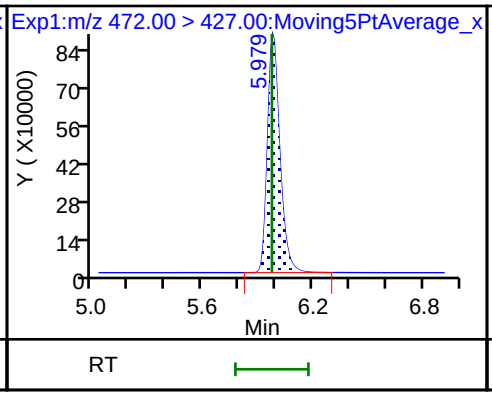
61 Perfluorononanoic acid (ND)



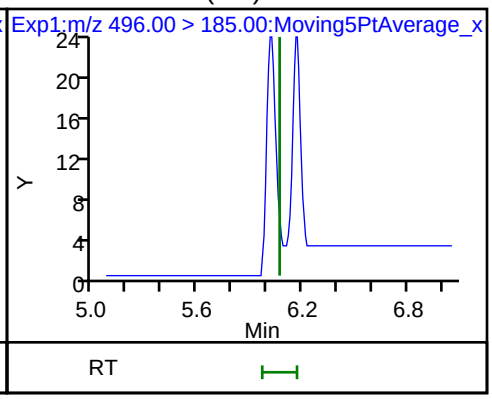
61 Perfluorononanoic acid (ND)



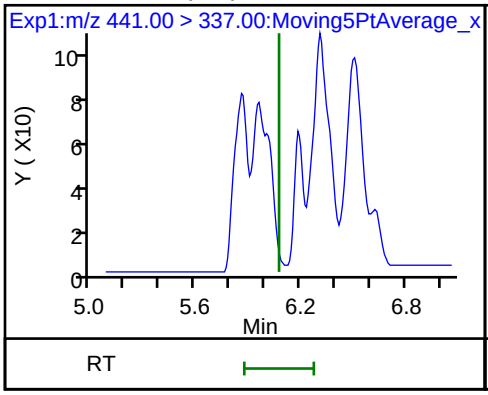
D 60 13C9 PFNA



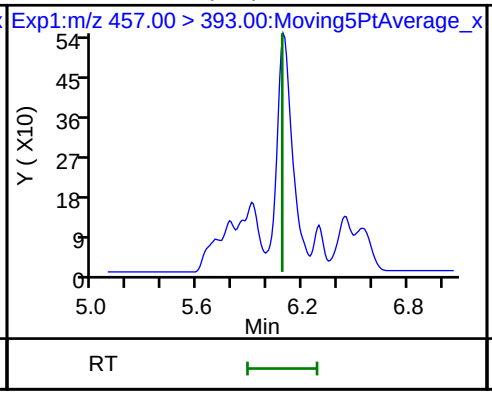
109 HFPO-TrA (ND)



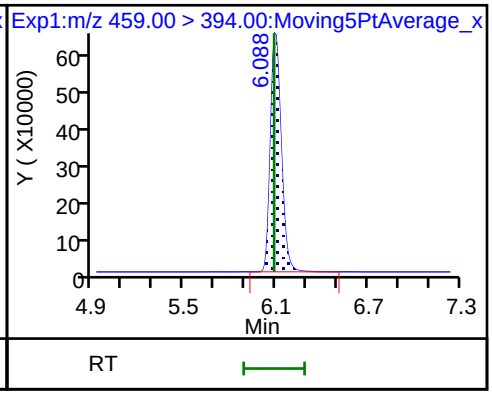
62 7:3 FTCA (ND)



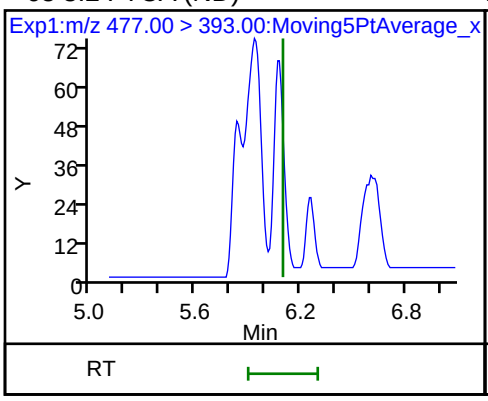
63 8:2 FTUCA (ND)



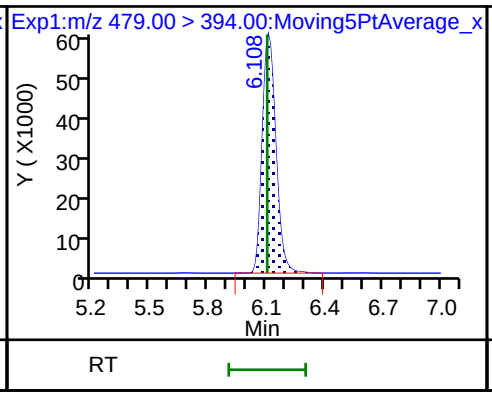
D 64 13C-8:2 FTUCA



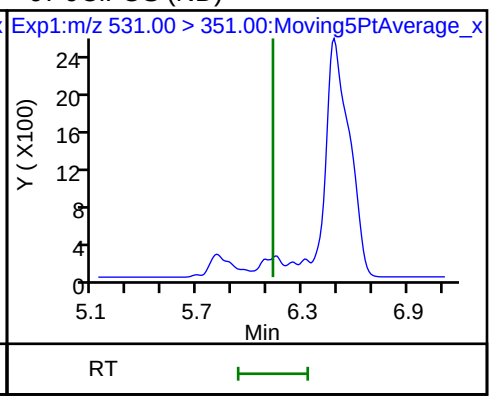
65 8:2 FTCA (ND)



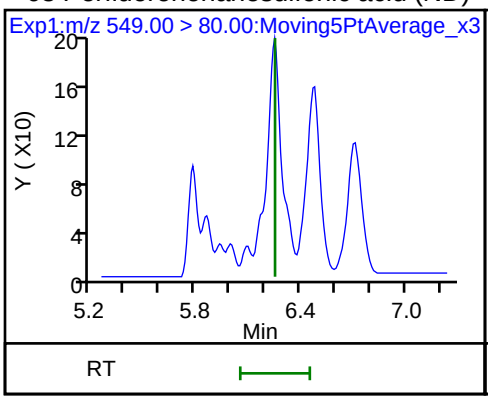
D 66 13C-8:2 FTCA



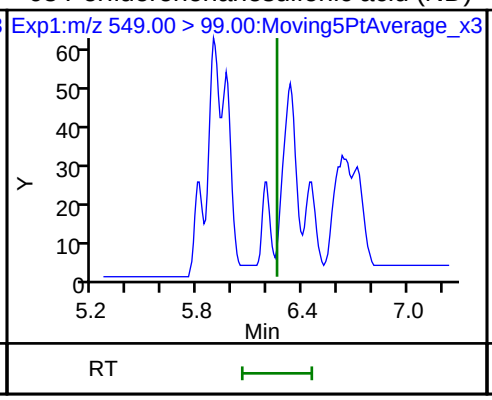
67 9ClFOS (ND)



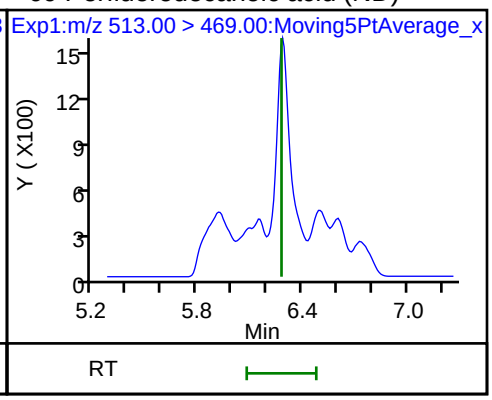
68 Perfluorononanesulfonic acid (ND)



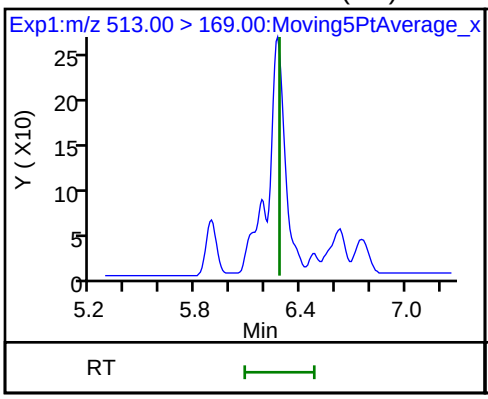
68 Perfluorononanesulfonic acid (ND)



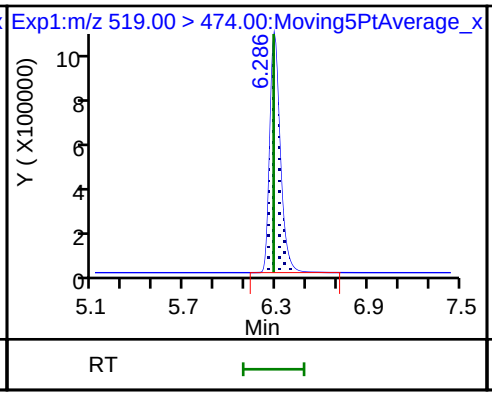
69 Perfluorodecanoic acid (ND)



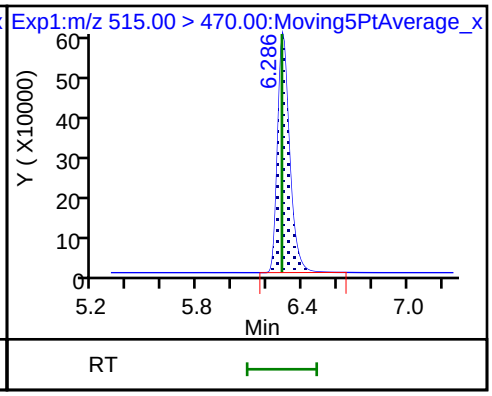
69 Perfluorodecanoic acid (ND)



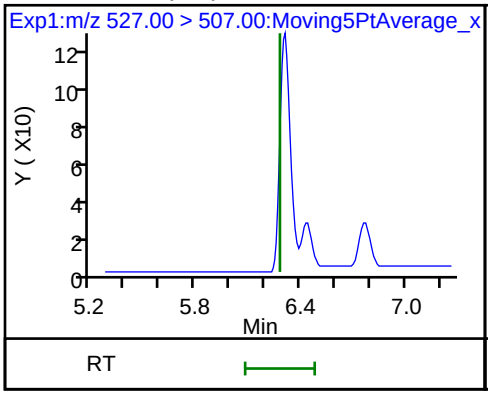
D 71 13C6 PFDA



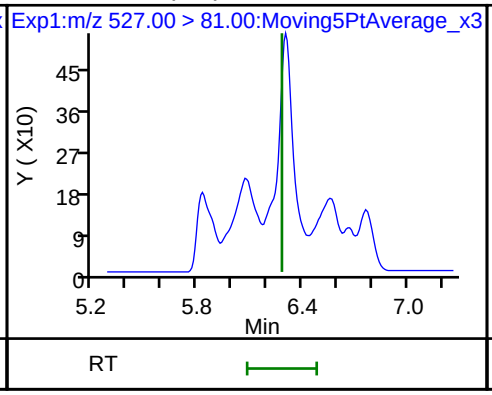
* 70 13C2 PFDA



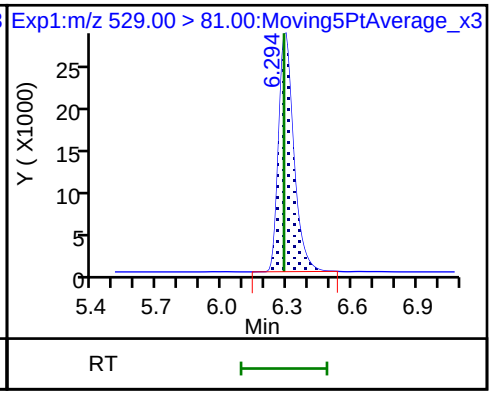
72 8:2 FTS (ND)



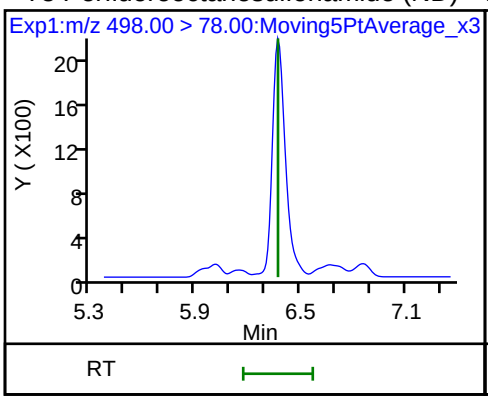
72 8:2 FTS (ND)



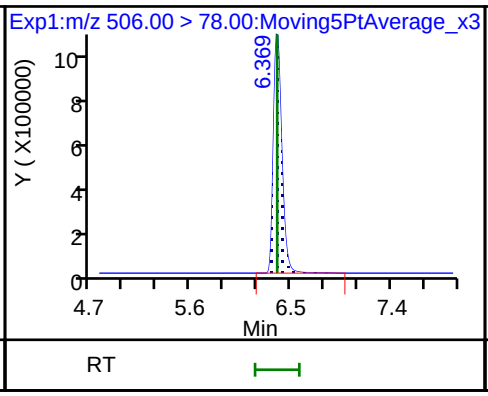
D 73 M2-8:2 FTS



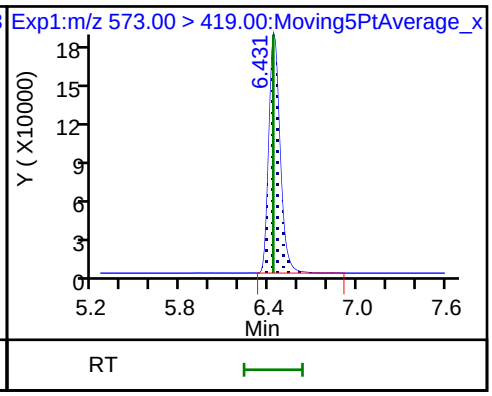
75 Perfluorooctanesulfonamide (ND)



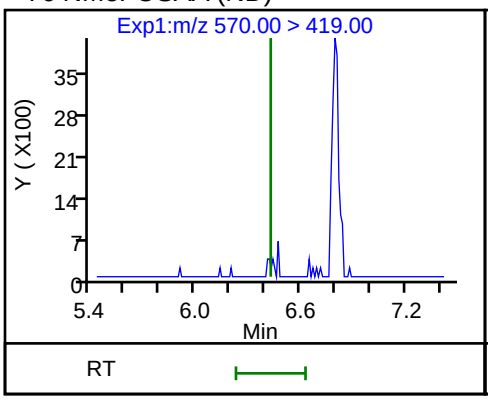
D 74 13C8 FOSA



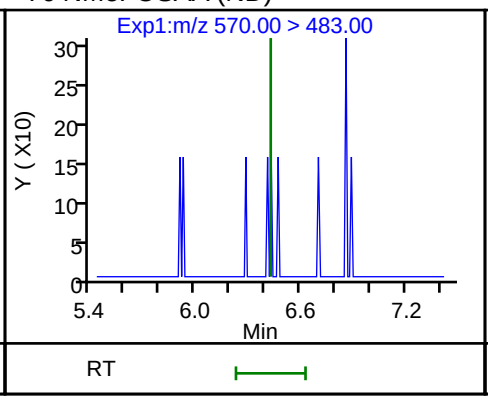
D 77 d3-NMeFOSAA



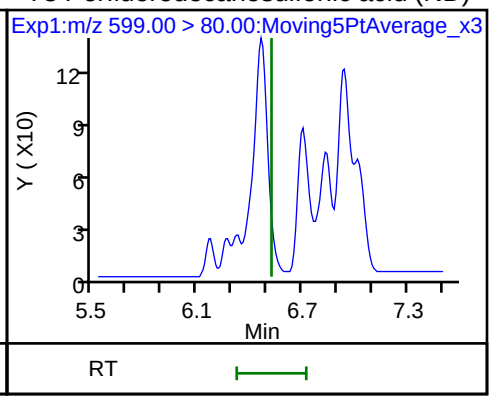
76 NMeFOSAA (ND)



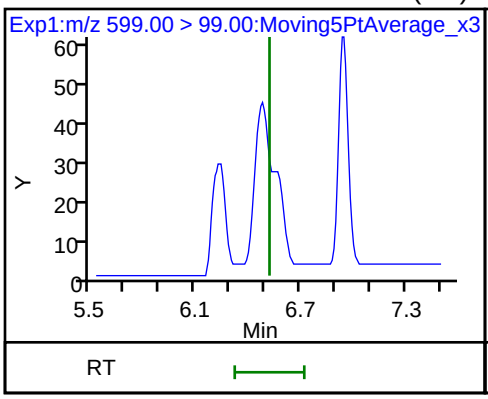
76 NMeFOSAA (ND)



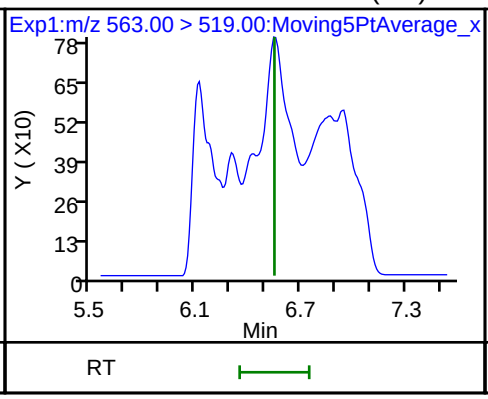
78 Perfluorodecanesulfonic acid (ND)



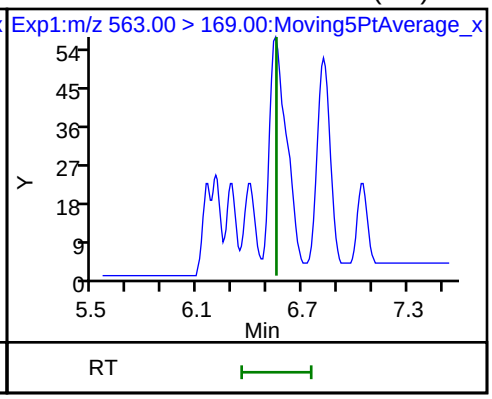
78 Perfluorodecanesulfonic acid (ND)



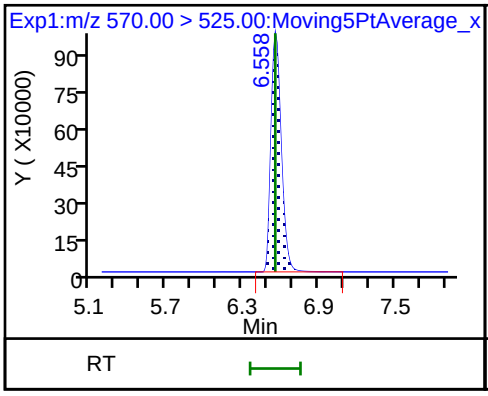
79 Perfluoroundecanoic acid (ND)



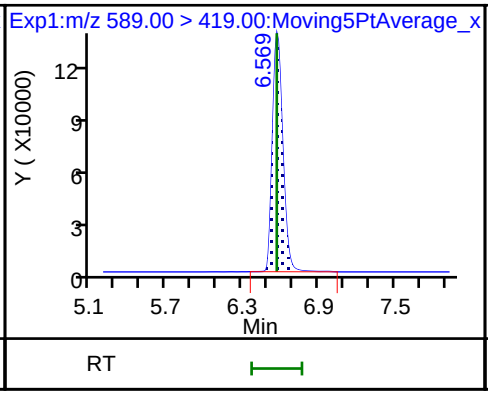
79 Perfluoroundecanoic acid (ND)



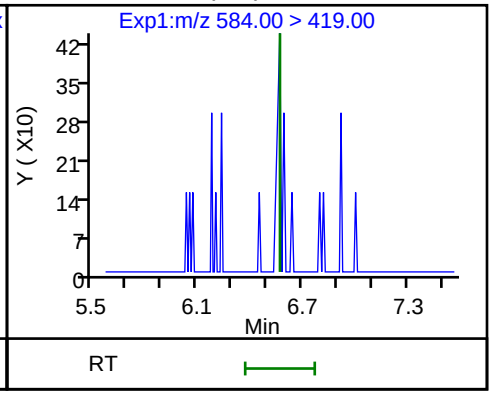
D 80 13C7 PFUnA



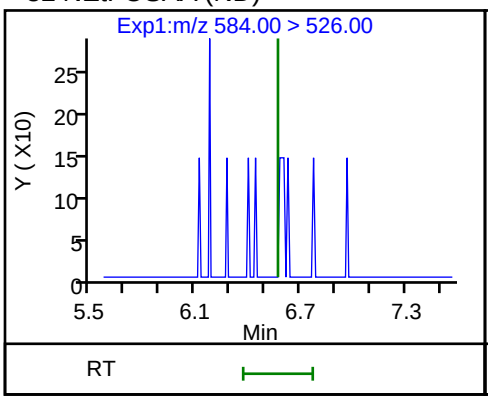
D 81 d5-NEtFOSAA



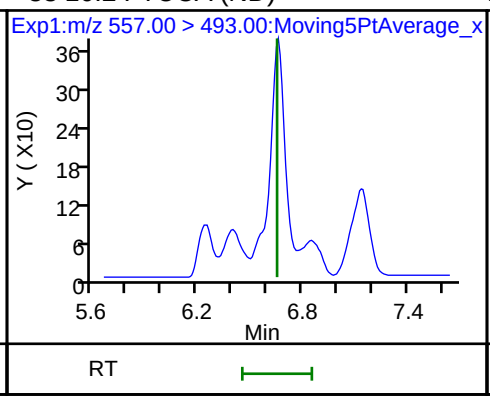
82 NEtFOSAA (ND)



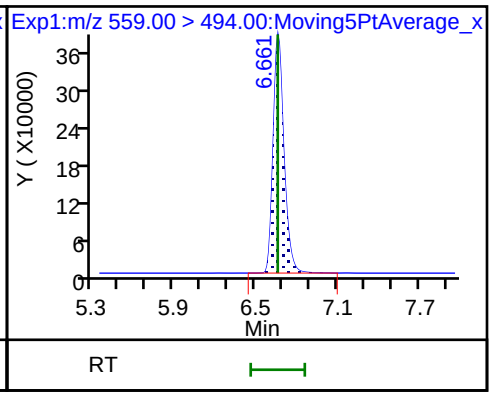
82 NEtFOSAA (ND)



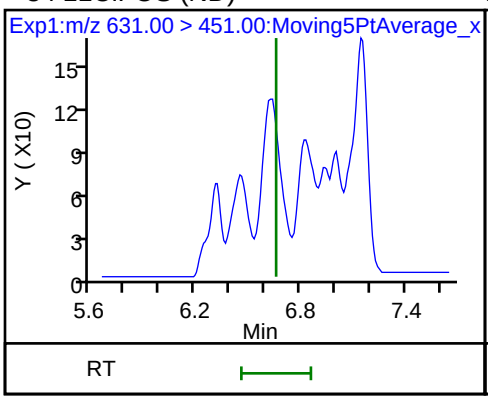
83 10:2 FTUCA (ND)



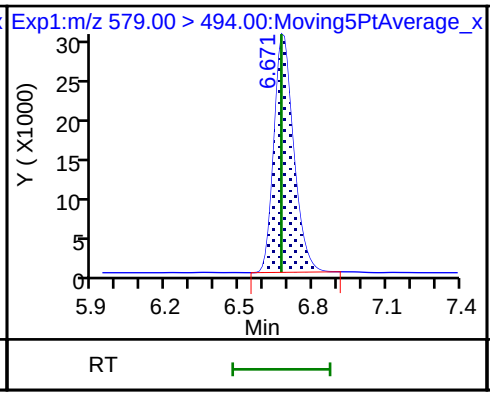
D 85 13C-10:2 FTUCA



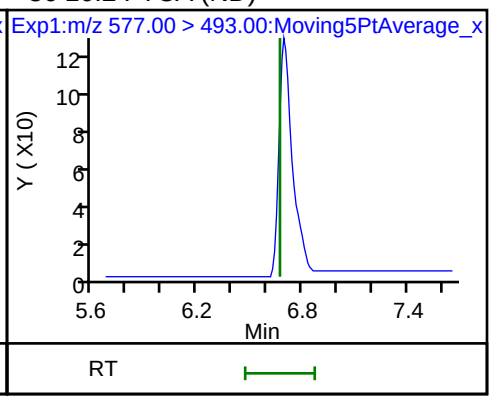
84 11ClFOS (ND)



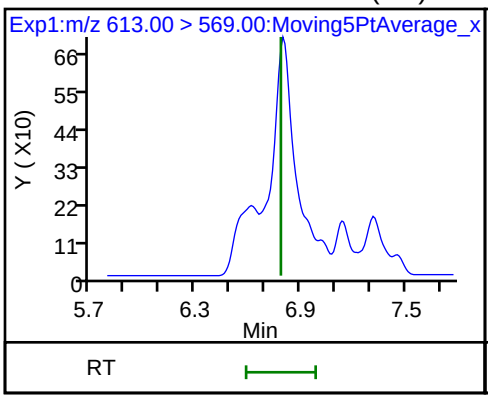
D 87 13C-10:2 FTCA



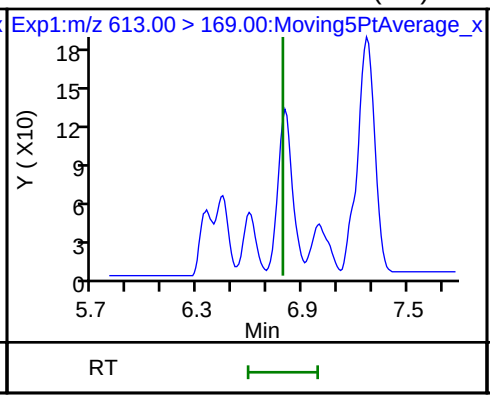
86 10:2 FTCA (ND)



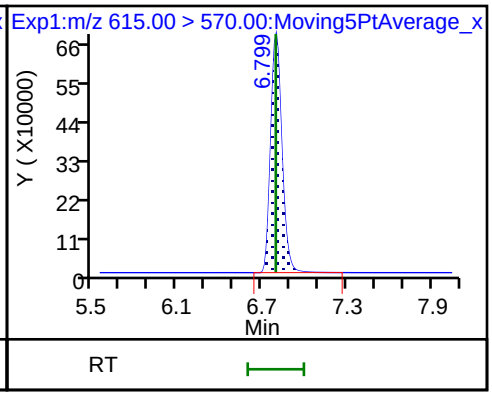
88 Perfluorododecanoic acid (ND)



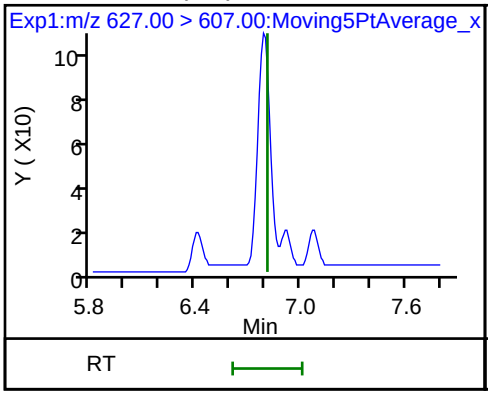
88 Perfluorododecanoic acid (ND)



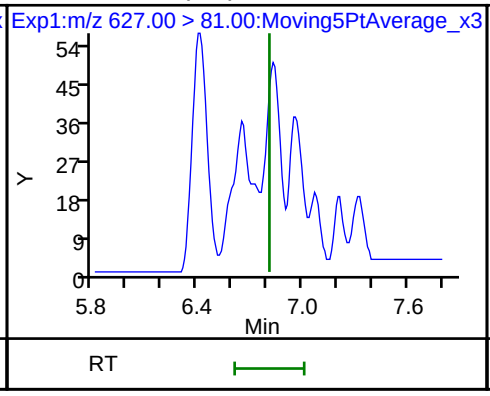
D 89 13C2-PFDoDA



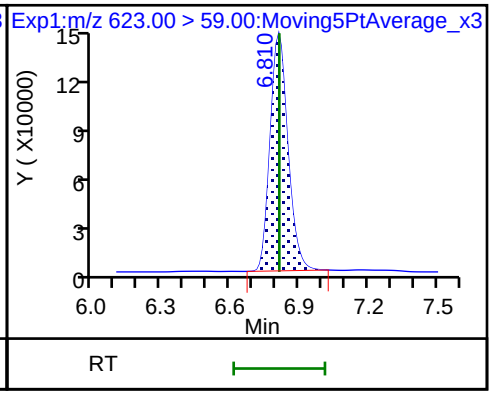
90 10:2 FTS (ND)



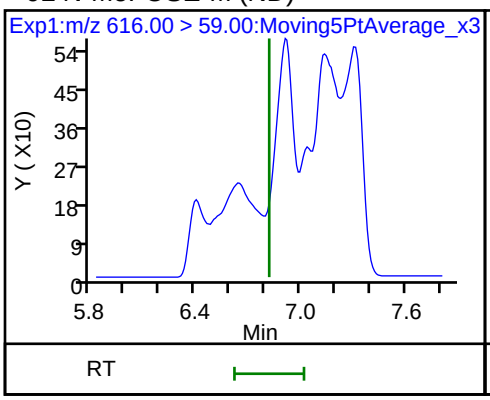
90 10:2 FTS (ND)



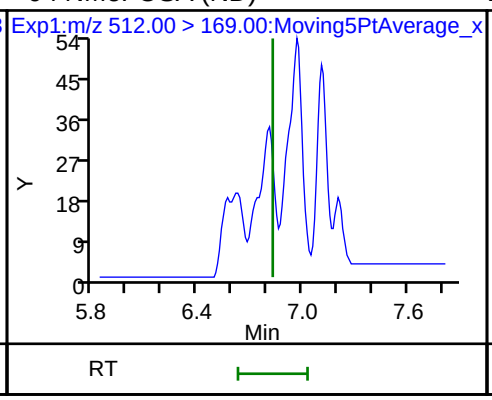
D 91 d7-N-MeFOSE-M



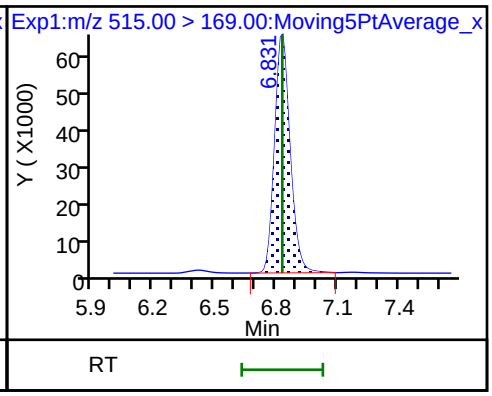
92 N-MeFOSE-M (ND)



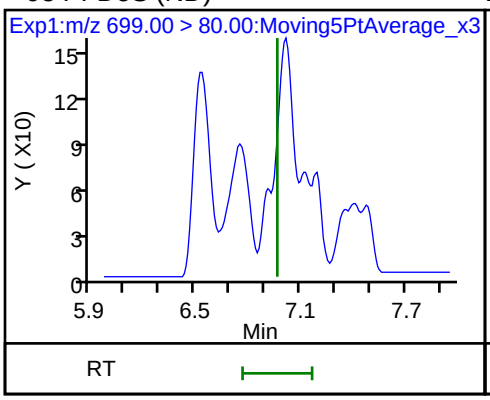
94 NMeFOSA (ND)



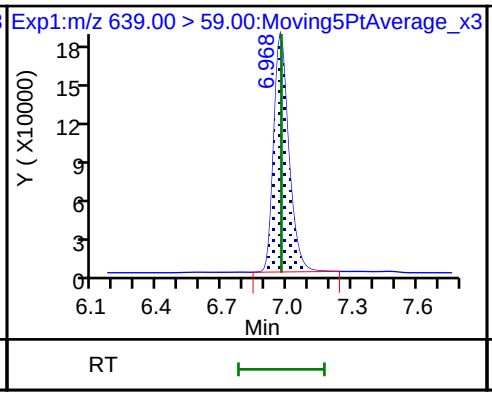
D 93 d3-NMePFOSA



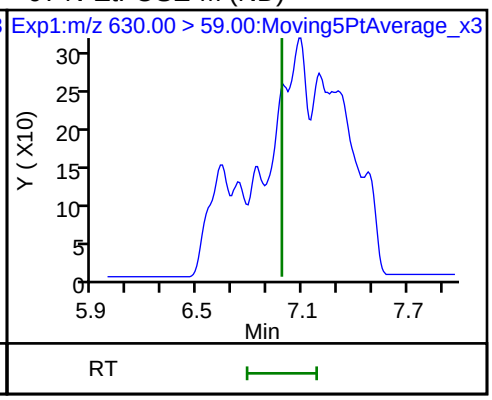
95 PFDoS (ND)



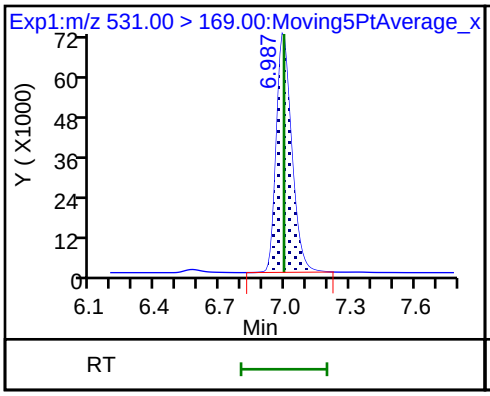
D 96 d9-N-EtFOSE-M



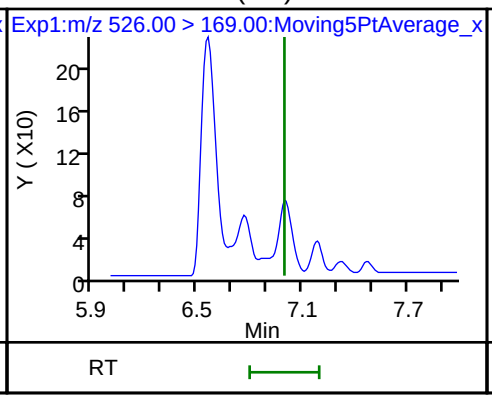
97 N-EtFOSE-M (ND)



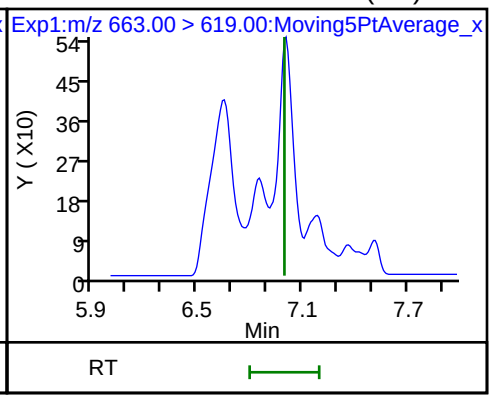
D 98 d5-NEtPFOSA



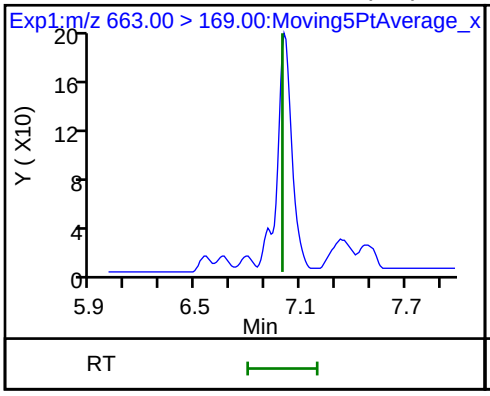
100 N-EtFOSA-M (ND)



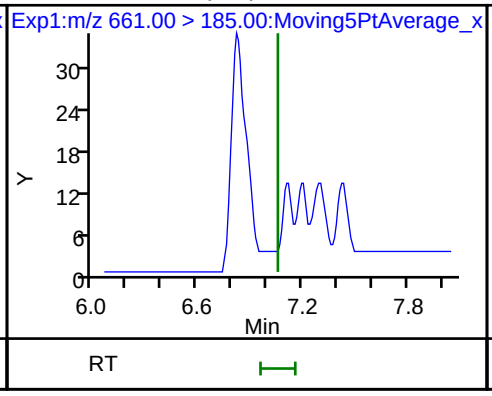
99 Perfluorotridecanoic acid (ND)



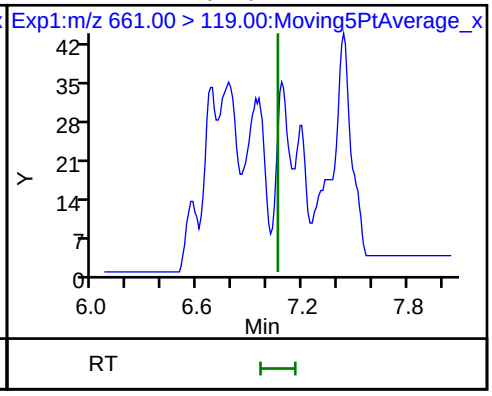
99 Perfluorotridecanoic acid (ND)



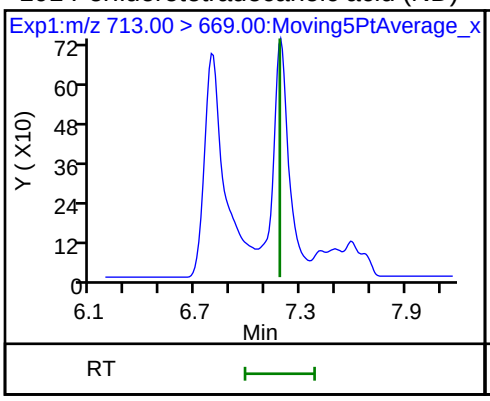
105 HFPOTeA (ND)



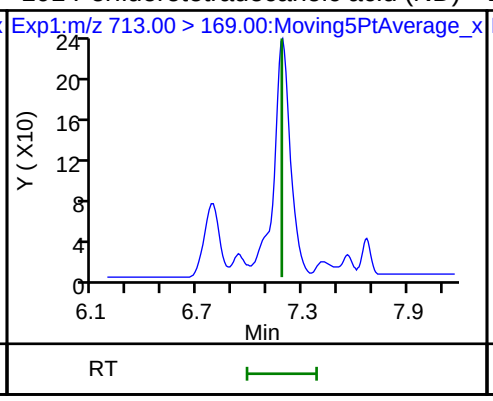
105 HFPOTeA (ND)



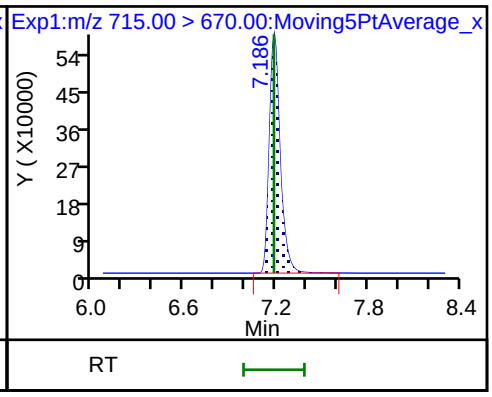
101 Perfluorotetradecanoic acid (ND)



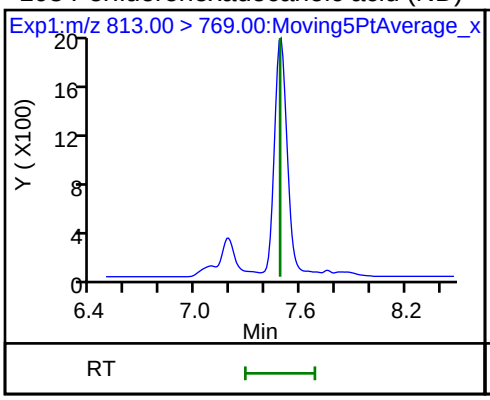
101 Perfluorotetradecanoic acid (ND)



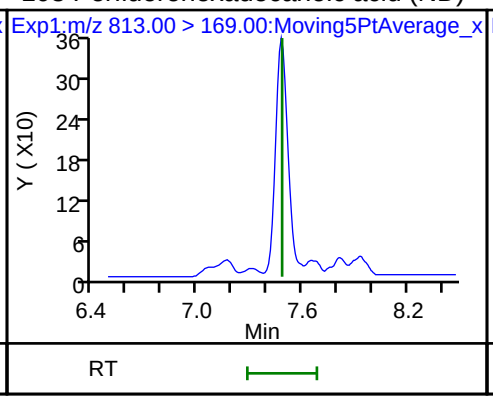
D 102 13C2 PFTeDA



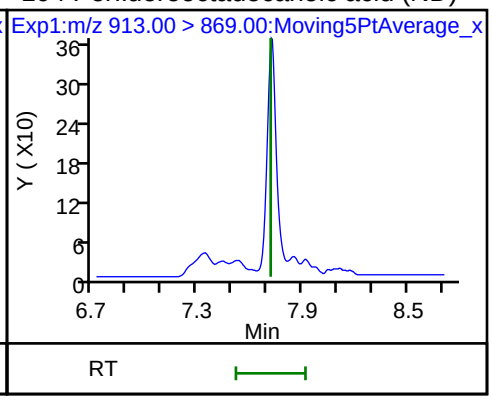
103 Perfluorohexadecanoic acid (ND)



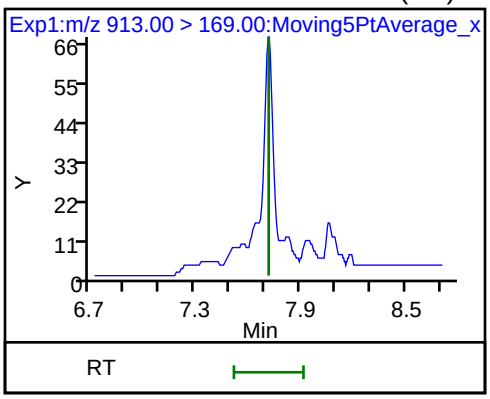
103 Perfluorohexadecanoic acid (ND)



104 Perfluorooctadecanoic acid (ND)



104 Perfluorooctadecanoic acid (ND)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

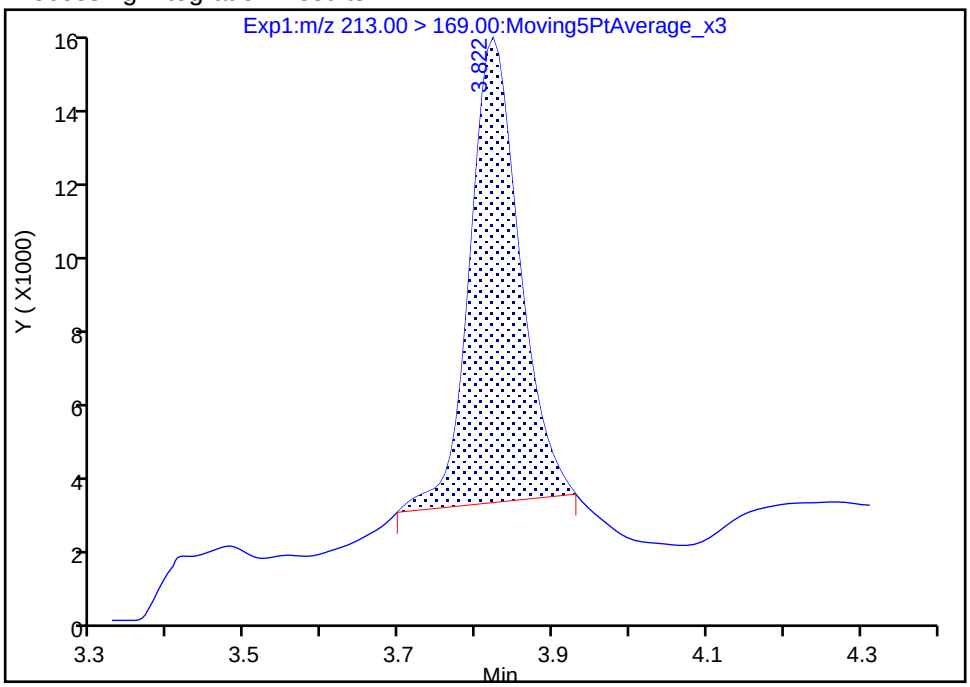
Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-13.d				
Injection Date:	02-Mar-2022 10:38:03	Instrument ID:	30728		
Lims ID:	MB 410-228569/1-B				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	3	Worklist Smp#:	5
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

7 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

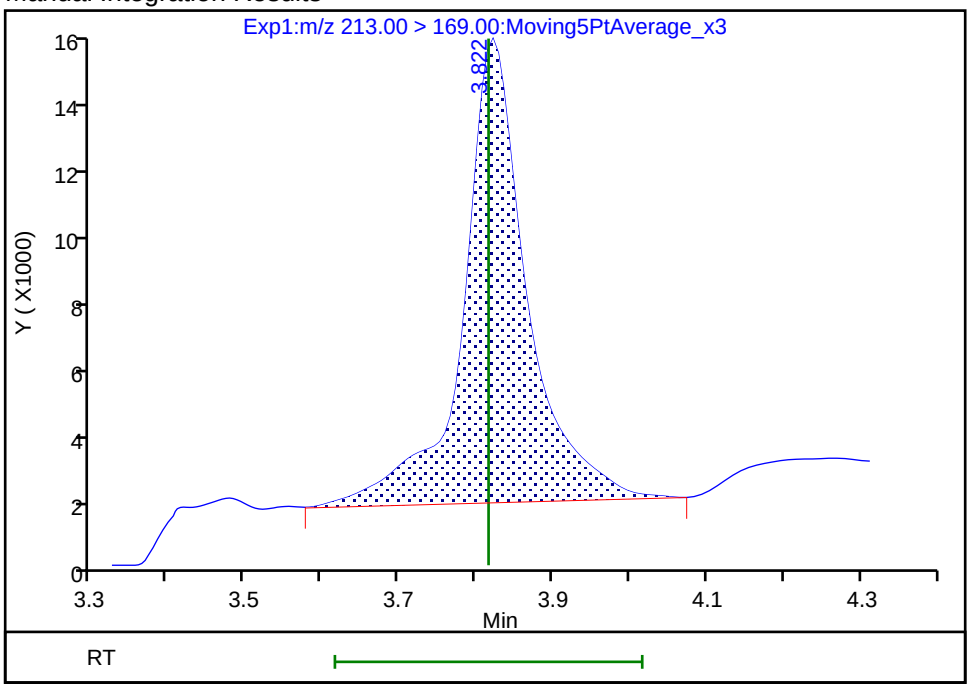
Processing Integration Results

RT: 3.82
Area: 56913
Amount: 0.133482
Amount Units: ng/ml



Manual Integration Results

RT: 3.82
Area: 81856
Amount: 0.191983
Amount Units: ng/ml



Reviewer: glicka, 02-Mar-2022 12:05:45
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID:
Lab Sample ID: ICB 410-226473/8
Matrix: Water
Lab File ID: 22FEB22MCAL-08.d
Analysis Method: 537 IDA
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 0(mL)
Date Analyzed: 02/22/2022 16:29
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 5(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 226473
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	ND		0.50	0.13
375-85-9	Perfluoroheptanoic acid	ND		0.50	0.13
335-67-1	Perfluorooctanoic acid	ND		0.50	0.13
375-95-1	Perfluorononanoic acid	ND		0.50	0.13
335-76-2	Perfluorodecanoic acid	ND		0.50	0.13
72629-94-8	Perfluorotridecanoic acid	ND		0.50	0.13
376-06-7	Perfluorotetradecanoic acid	ND		0.50	0.13
375-73-5	Perfluorobutanesulfonic acid	ND		0.50	0.13
355-46-4	Perfluorohexanesulfonic acid	ND		0.50	0.13
1763-23-1	Perfluorooctanesulfonic acid	ND		0.50	0.13
2991-50-6	NEtFOSAA	ND		1.3	0.13
2355-31-9	NMeFOSAA	ND		0.50	0.15
375-92-8	Perfluoroheptanesulfonic acid	ND		0.50	0.13
335-77-3	Perfluorodecanesulfonic acid	ND		0.50	0.13
754-91-6	Perfluorooctanesulfonamide	ND		0.50	0.13
375-22-4	Perfluorobutanoic acid	ND		1.3	0.50
2058-94-8	Perfluoroundecanoic acid	ND		0.50	0.13
307-55-1	Perfluorododecanoic acid	ND		0.50	0.13
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		1.3	0.50
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.75	0.25
2706-90-3	Perfluoropentanoic acid	ND		0.50	0.13

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 410-226473/8

Matrix: Water Lab File ID: 22FEB22MCAL-08.d

Analysis Method: 537 IDA Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 02/22/2022 16:29

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 5(uL) GC Column: Gemini C18 50mm ID: 3(mm)

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

Analysis Batch No.: 226473 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	121		33-200
STL02279	M2-6:2 FTS	127		17-200
STL02577	13C5 PFHxA	137		24-179
STL01892	13C4 PFHpA	137		31-182
STL01052	13C8 PFOA	128		48-162
STL02578	13C9 PFNA	126		51-167
STL02579	13C6 PFDA	124		49-163
STL02580	13C7 PFUnA	130		34-174
STL02703	13C2-PFDoDA	119		17-176
STL02116	13C2 PFTeDA	122		10-179
STL02337	13C3 PFBS	129		16-200
STL02581	13C3 PFHxS	139		28-188
STL01054	13C8 PFOS	123		51-159
STL02118	d3-NMeFOSAA	126		31-174
STL02117	d5-NEtFOSAA	143		29-195
STL01056	13C8 FOSA	121		10-168
STL00992	13C4 PFBA	127		42-165
STL01893	13C5 PFPeA	134		38-187

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-08.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 22-Feb-2022 16:29:41 ALS Bottle#: 20001 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: ICB
Misc. Info.: Plate: 1 Rack: 1 410-0050930-008
Operator ID: US19_USR_INS20260 Instrument ID: 30733

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 08:23:43 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1671

First Level Reviewer: fellenbauma Date: 22-Feb-2022 21:10:03
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										
175.00 > 97.00		1.469				ND				
1 PPF Acid										
163.00 > 119.00		1.837				ND				
96 PFMOAA										
179.00 > 85.00		2.942				ND				
100 R-PSDA										
441.00 > 241.00		3.947				ND				
99 R-EVE										
405.00 > 217.00		3.947				ND				
105 Hydrolyzed PSDA										
439.00 > 343.00		3.963				ND				
D 3 13C4 PFBA										
217.00 > 172.00	3.974	3.972	0.002	1.000	1695927	12.7		127	95956	
2 Perfluorobutanoic acid										
213.00 > 169.00		3.972				ND				
* 4 13C3-PFBA										
216.00 > 172.00	3.974	3.972	0.002		601619	5.00			1169	
102 PMPA										
229.00 > 185.00		4.098				ND				
5 PFPrS										
249.00 > 99.00		4.159				ND				
103 NVHOS										
297.00 > 135.00		4.191				ND				
6 PFECA F										
229.00 > 85.00		4.223				ND				
92 PFO2HxA										
245.00 > 85.00		4.402				ND				

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
7 Perfluoropentanoic acid										
263.00 > 219.00		4.514				ND				
D 8 13C5 PFPeA										
268.00 > 223.00	4.516	4.524	-0.008	1.137	1550901	13.4		134	116117	
9 3:3 FTCA										
241.00 > 177.00		4.524				ND				
D 11 13C3 PFBS										
302.00 > 80.00	4.575	4.572	0.003	1.151	1097894	12.0		129	83198	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00		4.572				ND				
299.00 > 99.00		4.572								
91 PEPA										
279.00 > 235.00		4.628				ND				
12 PFECA A										
279.00 > 85.00		4.653				ND				
13 PES										
315.00 > 135.00		4.740				ND				
14 PFECA B										
201.00 > 85.00		4.870				ND				
295.00 > 201.00		4.870								
D 16 M2-4:2 FTS										
329.00 > 81.00	4.901	4.899	0.002	0.860	231477	13.5		145	16804	
15 4:2 FTS										
327.00 > 307.00		4.899				ND				
327.00 > 81.00		4.899								
$ 18 13C2 PFHxA										
315.00 > 270.00		4.940				ND				
D 19 13C5 PFHxA										
318.00 > 273.00	4.943	4.940	0.003	0.868	1815897	13.7		137	128541	
17 Perfluorohexanoic acid										
313.00 > 269.00		4.940				ND				
313.00 > 119.00		4.940								
20 Perfluoropentanesulfonic acid										
349.00 > 80.00		4.960				ND				
349.00 > 99.00		4.960								
93 PFO3OA										
311.00 > 85.00		4.999				ND				
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.063	5.070	-0.007	0.889	258498	13.2		132	19913	
21 HFPO-DA										
329.00 > 285.00		5.070				ND				
106 Hydro-PS Acid										
463.00 > 263.00		5.273				ND				
97 Hydro-EVE Acid										
427.00 > 283.00		5.284				ND				
94 R-PSDCA										
397.00 > 217.00		5.284				ND				

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 25 13C3 PFHxS										
402.00 > 80.00	5.328	5.326	0.002	0.935	1079688	13.1		139	78002	
26 Perfluorohexanesulfonic acid										
399.00 > 80.00		5.326				ND				
399.00 > 99.00		5.326								
23 Perfluoroheptanoic acid										
363.00 > 319.00		5.326				ND				
363.00 > 169.00		5.326								
D 24 13C4 PFHpA										
367.00 > 322.00	5.328	5.337	-0.009	0.935	2028835	13.7		137	88127	
27 DONA										
377.00 > 251.00		5.374				ND				
98 PFECA G										
379.00 > 185.00		5.391				ND				
28 5:3 FTCA										
341.00 > 237.00		5.407				ND				
341.00>217.00		5.407								
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.434	5.432	0.002	0.954	1375253	10.8		108	109045	
29 6:2 FTUCA										
357.00 > 293.00	5.425	5.432	-0.007	0.998	2062	0.0110			149	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.451	5.449	0.002	0.957	272338	23.2		232	21579	
32 6:2 FTCA										
377.00 > 293.00		5.449				ND				
95 PFO4DA										
377.00 > 85.00		5.502				ND				
104 PS Acid										
443.00 > 147.00		5.544				ND				
90 EVE Acid										
407.00 > 263.00		5.569				ND				
33 PFECHS										
461.00 > 381.00		5.629				ND				
461.00 > 99.00		5.629								
D 35 M2-6:2 FTS										
429.00 > 81.00	5.678	5.677	0.001	0.997	84861	12.0		127	6130	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00		5.677				ND				
449.00 > 99.00		5.677								
34 6:2 FTS										
427.00 > 407.00		5.677				ND				
427.00 > 81.00		5.677								
40 Perfluorooctanoic acid										
413.00 > 369.00		5.696				ND				
413.00 > 169.00		5.696								
D 37 13C8 PFOA										
421.00 > 376.00	5.698	5.696	0.002	1.000	2078636	12.8		128	113959	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
$ 39 13C4 PFOA										
417.00 > 372.00	5.698	5.696	0.002	1.000	21779	NC			1605	
* 38 13C2 PFOA										
415.00 > 370.00	5.698	5.696	0.002		615101	5.00			34119	
101 TAF										
443.00 > 85.00		5.945				ND				
D 41 13C8 PFOS										
507.00 > 80.00	6.018	6.015	0.003	1.000	1066635	11.8		123	48773	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00		6.015				ND				
499.00 > 99.00		6.015								
* 42 13C4 PFOS										
503.00 > 80.00	6.018	6.015	0.003		428345	4.78			32681	
D 45 13C9 PFNA										
472.00 > 427.00	6.036	6.033	0.003	1.003	1900205	12.6		126	107914	
44 Perfluorononanoic acid										
463.00 > 419.00		6.033				ND				
463.00 > 169.00		6.033								
46 7:3 FTCA										
441.00 > 337.00		6.139				ND				
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.141	6.148	-0.007	0.969	1730561	9.35		93.5	134635	
47 8:2 FTUCA										
457.00 > 393.00	6.141	6.148	-0.007	1.000	2151	0.0117			179	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.166	6.164	0.002	0.973	229142	18.5		185	18579	
49 8:2 FTCA										
477.00 > 393.00		6.164				ND				
51 9ClFOS										
531.00 > 351.00		6.187				ND				
52 Perfluorononanesulfonic acid										
549.00 > 80.00		6.316				ND				
549.00 > 99.00		6.316								
D 54 13C6 PFDA										
519.00 > 474.00	6.337	6.344	-0.007	1.000	2069217	12.4		124	112283	
53 Perfluorodecanoic acid										
513.00 > 469.00		6.344				ND				
513.00 > 169.00		6.344								
* 55 13C2 PFDA										
515.00 > 470.00	6.337	6.344	-0.007		839755	5.00			45247	
56 8:2 FTS										
527.00 > 507.00		6.344				ND				
527.00 > 81.00		6.344								
D 57 M2-8:2 FTS										
529.00 > 81.00	6.347	6.354	-0.007	1.002	52934	11.6		121	3781	
D 59 13C8 FOSA										
506.00 > 78.00	6.421	6.419	0.002	1.013	1912346	12.1		121	99284	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.421	6.419	0.002	1.000	4036	0.0210			170	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.483	6.491	-0.008	1.023	709791	12.6		126	48544	
60 NMeFOSAA										
570.00 > 419.00		6.491				ND				
570.00 > 483.00		6.491								
62 Perfluorodecanesulfonic acid										
599.00 > 80.00		6.580				ND				
599.00 > 99.00		6.580								
D 65 13C7 PFUnA										
570.00 > 525.00	6.617	6.615	0.002	1.044	2113513	13.0		130	69392	
63 Perfluoroundecanoic acid										
563.00 > 519.00		6.615				ND				
563.00 > 169.00		6.615								
$ 64 13C2 PFUnA										
565.00 > 520.00		6.615				ND				
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.629	6.626	0.003	1.046	564337	14.3		143	37343	
67 NEtFOSAA										
584.00 > 419.00		6.638				ND				
584.00 > 526.00		6.638								
68 10:2 FTUCA										
557.00 > 493.00	6.715	6.713	0.002	1.000	2138	0.0149			89.6	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.715	6.725	-0.010	1.060	1403112	10.0		100	67884	
69 11ClFOS										
631.00 > 451.00		6.725				ND				
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.727	6.737	-0.010	1.062	142029	20.5		205	9044	
71 10:2 FTCA										
577.00 > 493.00		6.737				ND				
73 Perfluorododecanoic acid										
613.00 > 569.00		6.850				ND				
613.00 > 169.00		6.850								
D 74 13C2-PFDoDA										
615.00 > 570.00	6.852	6.850	0.002	1.081	1429500	11.9		119	76882	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.862	6.860	0.002	1.083	303226	12.1		121	8088	
77 N-MeFOSE-M										
616.00 > 59.00		6.870				ND				
75 10:2 FTS										
627.00 > 607.00		6.870				ND				
627.00 > 81.00		6.870								
D 79 d3-NMePFOSA										
515.00 > 169.00	6.872	6.880	-0.008	1.084	199536	12.4		124	8801	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
78 NMeFOSA										
512.00 > 169.00		6.880				ND				
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.015	7.013	0.002	1.107	332091	11.6		116	12061	
82 N-EtFOSE-M										
630.00 > 59.00		7.024				ND				
80 PFDoS										
699.00 > 80.00		7.024				ND				
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.037	7.035	0.002	1.110	176946	11.5		115	9538	
84 N-EtFOSA-M										
526.00 > 169.00		7.045				ND				
85 Perfluorotridecanoic acid										
663.00 > 619.00		7.056				ND				
663.00 > 169.00		7.056								
86 Perfluorotetradecanoic acid										
713.00 > 669.00		7.226				ND				
713.00 > 169.00		7.226								
D 87 13C2 PFTeDA										
715.00 > 670.00	7.228	7.234	-0.006	1.141	1240358	12.2		122	66481	
88 Perfluorohexadecanoic acid										
813.00 > 769.00		7.534				ND				
813.00 > 169.00		7.534								
89 Perfluorooctadecanoic acid										
913.00 > 869.00		7.770				ND				
913.00 > 169.00		7.770								

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

PFC_IS_MOD_00273 Amount Added: 50.00 Units: uL

PFC_SS_MODX_00219 Amount Added: 25.00 Units: uL

Report Date: 23-Feb-2022 08:24:18 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-08.d

Injection Date: 22-Feb-2022 16:29:41 Instrument ID: 30733

Lims ID: ICB

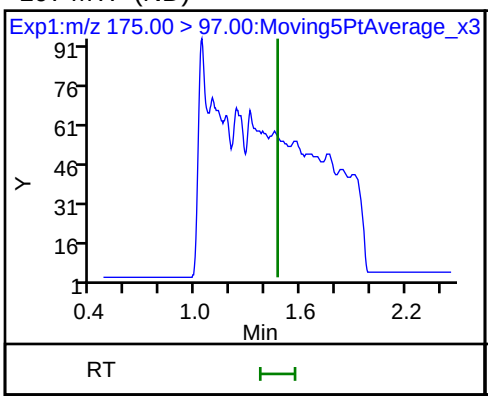
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 20001 Worklist Smp#: 8

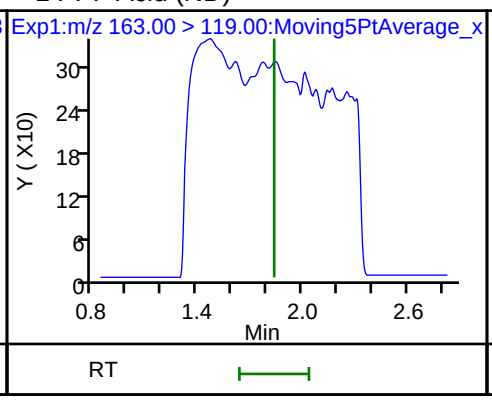
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

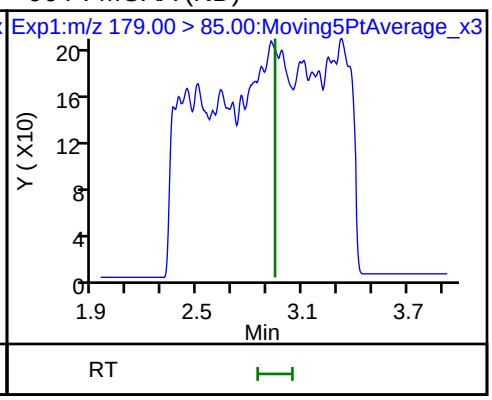
107 MTP (ND)



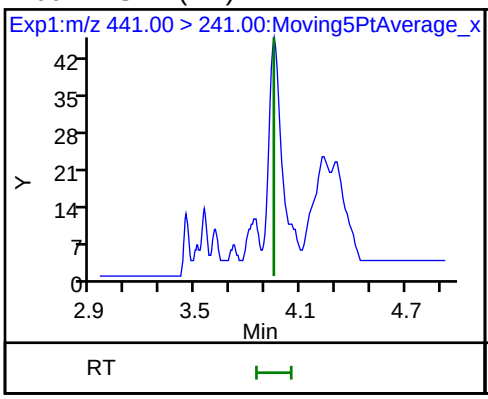
1 PPF Acid (ND)



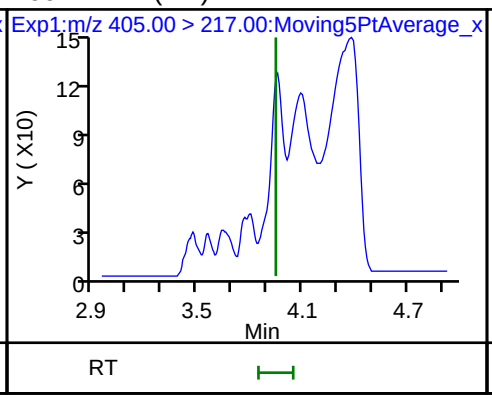
96 PFMOAA (ND)



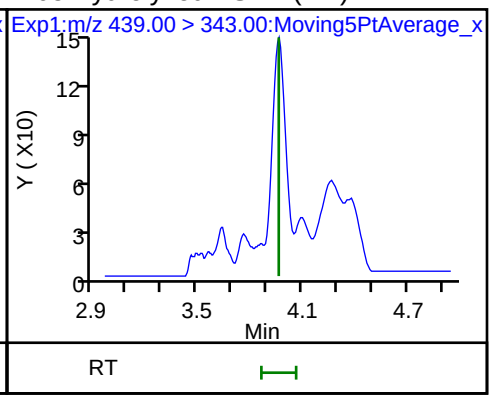
100 R-PSDA (ND)



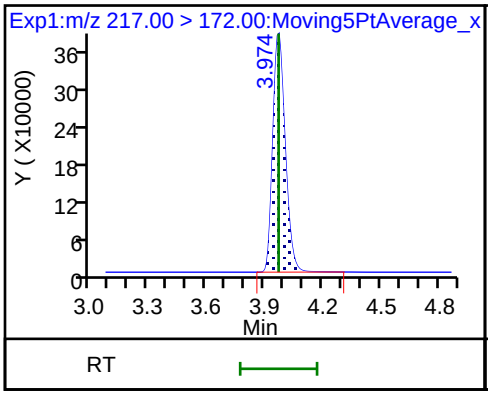
99 R-EVE (ND)



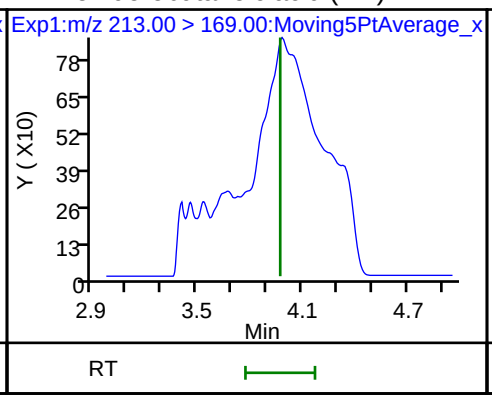
105 Hydrolyzed PSDA (ND)



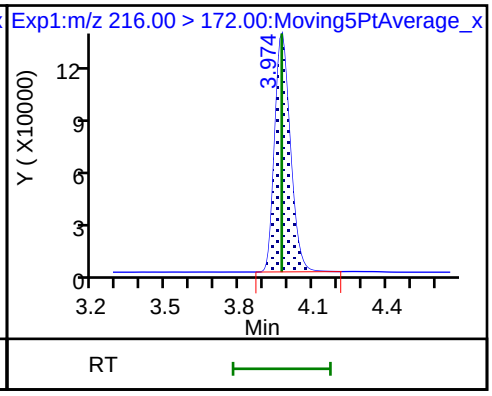
D 3 13C4 PFBA



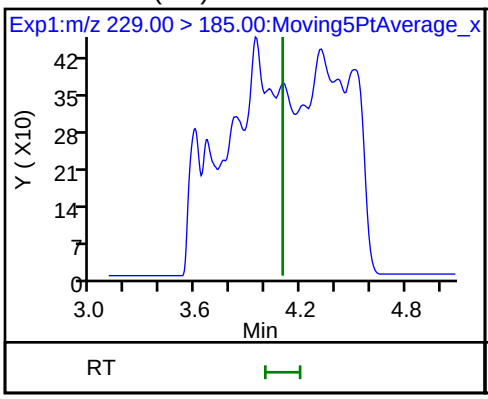
2 Perfluorobutanoic acid (ND)



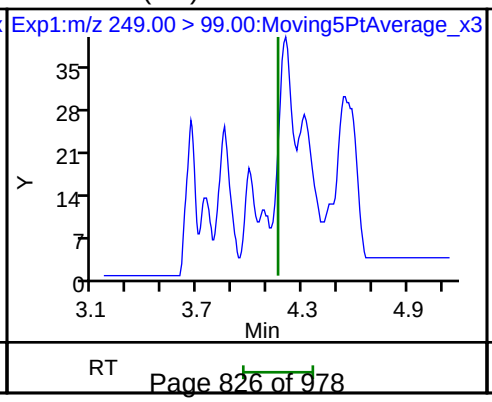
* 4 13C3-PFBA



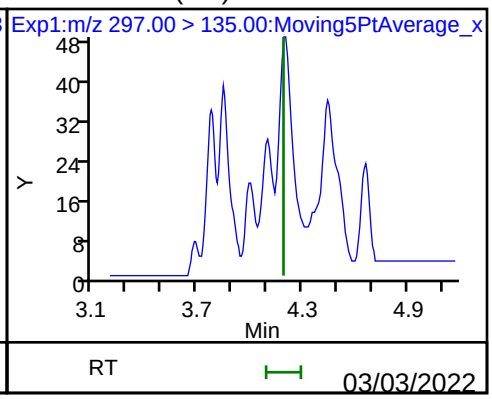
102 PMPA (ND)



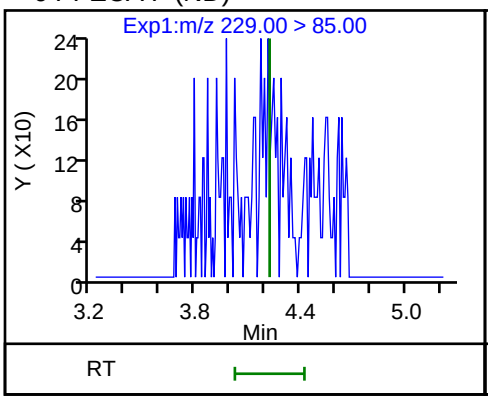
5 PFPrS (ND)



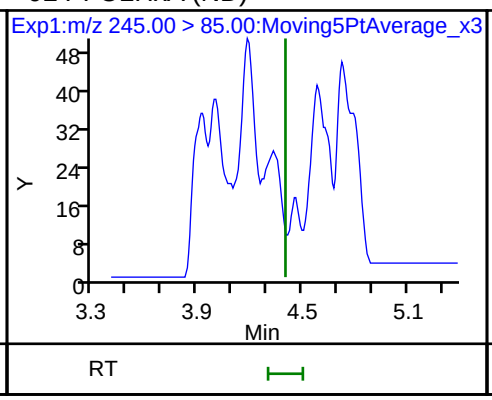
103 NVHOS (ND)



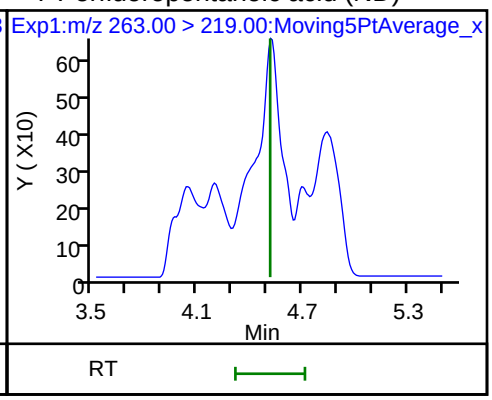
6 PFECA F (ND)



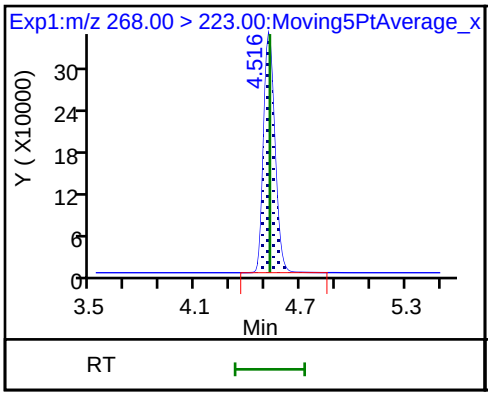
92 PFO2HxA (ND)



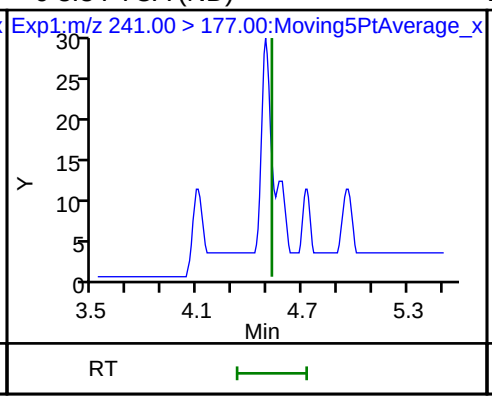
7 Perfluoropentanoic acid (ND)



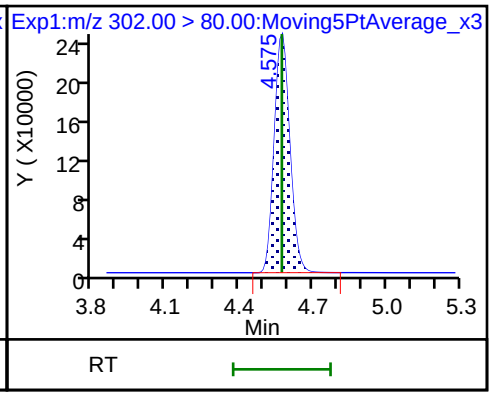
D 8 13C5 PFPeA



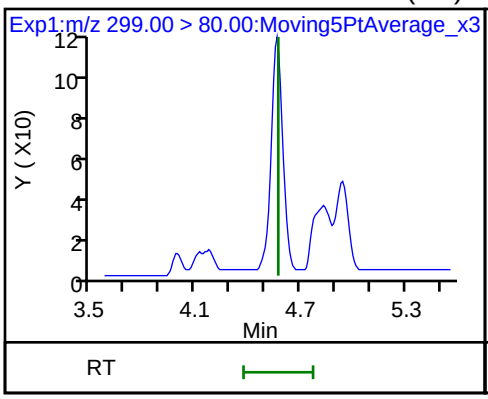
9 3:3 FTCA (ND)



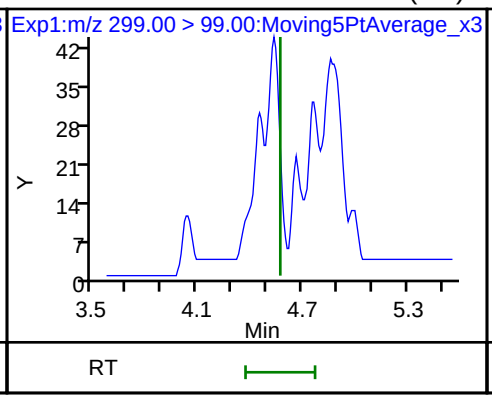
D 11 13C3 PFBS



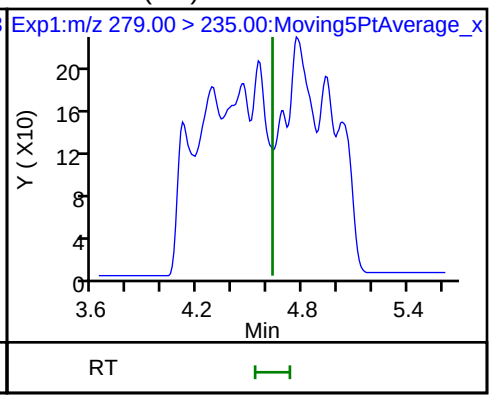
10 Perfluorobutanesulfonic acid (ND)



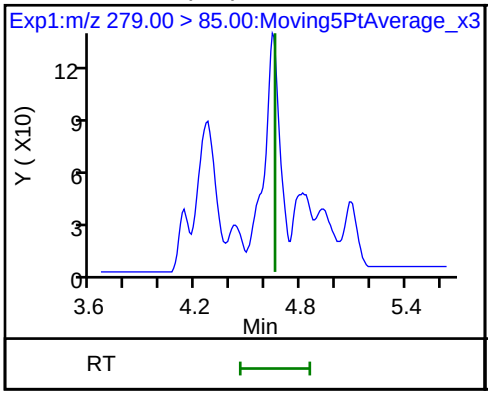
10 Perfluorobutanesulfonic acid (ND)



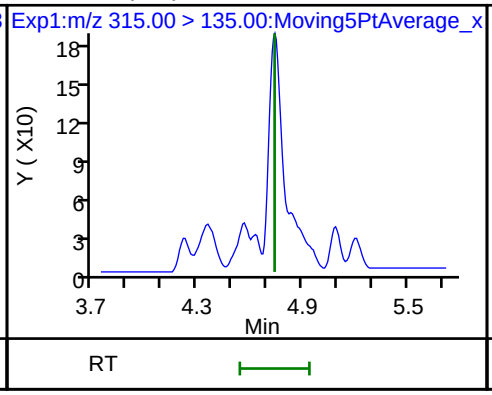
91 PEPA (ND)



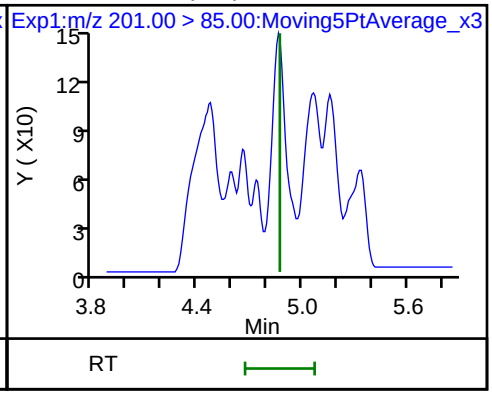
12 PFECA A (ND)



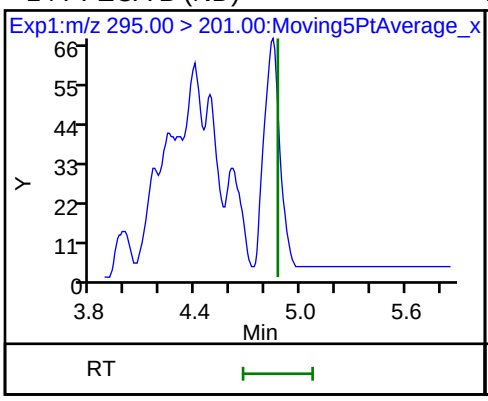
13 PES (ND)



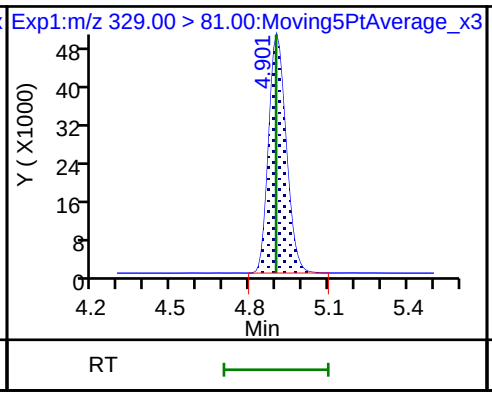
14 PFECA B (ND)



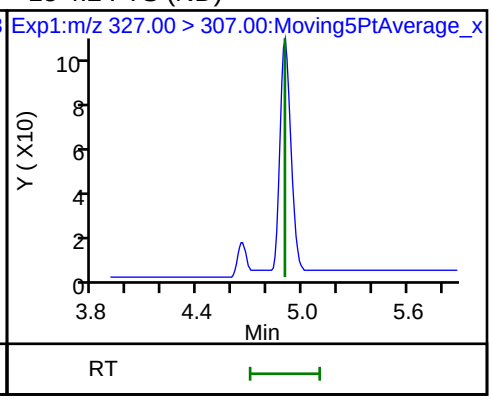
14 PFECA B (ND)



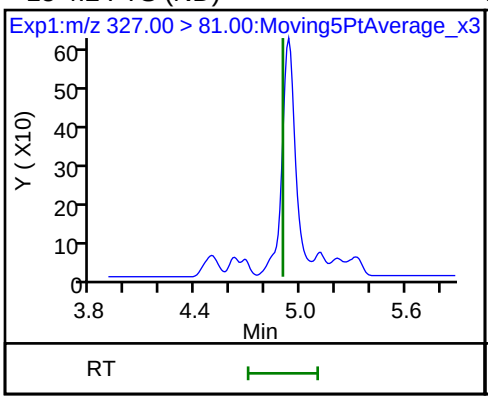
D 16 M2-4:2 FTS



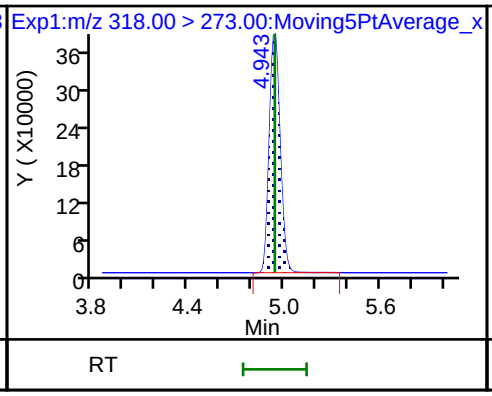
15 4:2 FTS (ND)



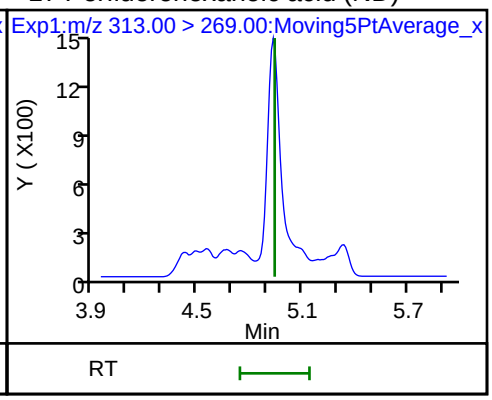
15 4:2 FTS (ND)



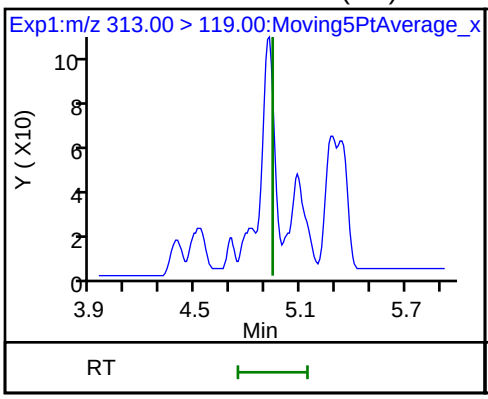
D 19 13C5 PFHxA



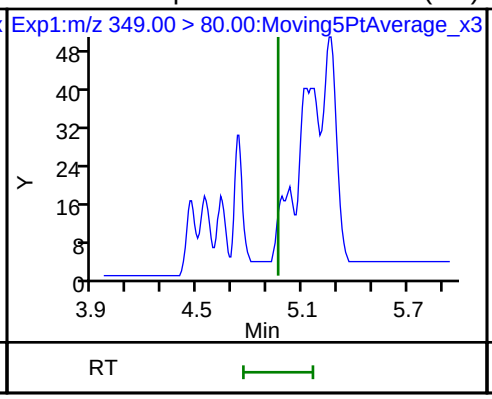
17 Perfluorohexanoic acid (ND)



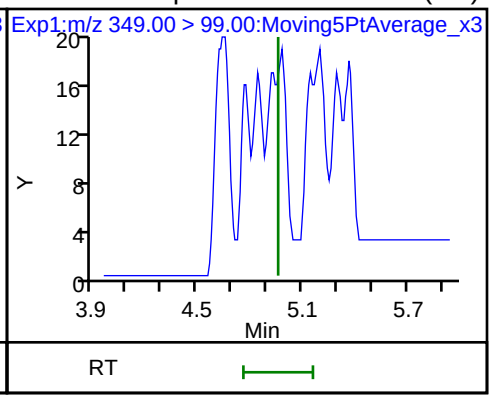
17 Perfluorohexanoic acid (ND)



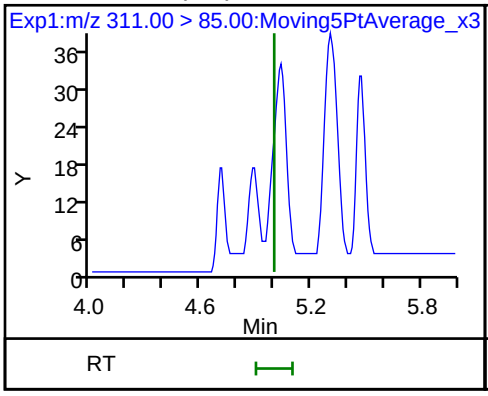
20 Perfluoropentanesulfonic acid (ND)



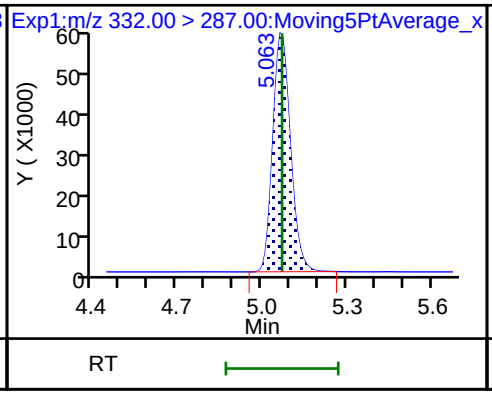
20 Perfluoropentanesulfonic acid (ND)



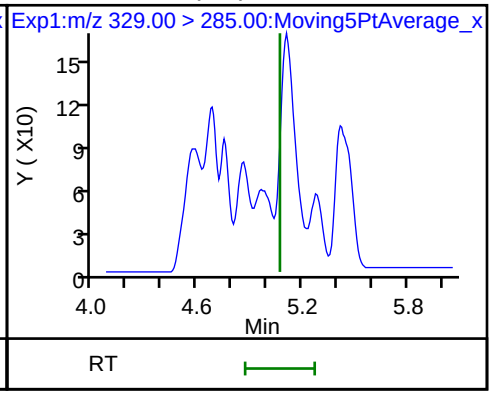
93 PFO3OA (ND)



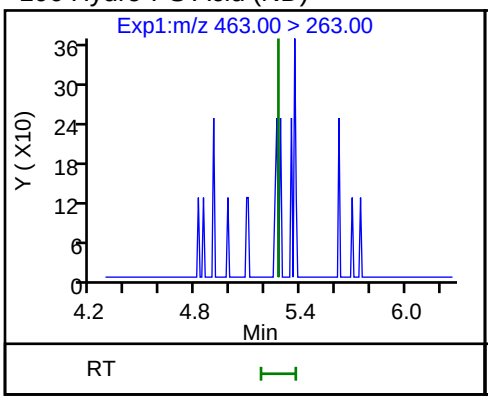
D 22 13C3 HFPO-DA



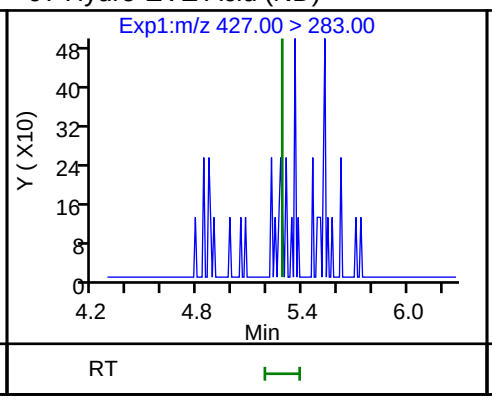
21 HFPO-DA (ND)



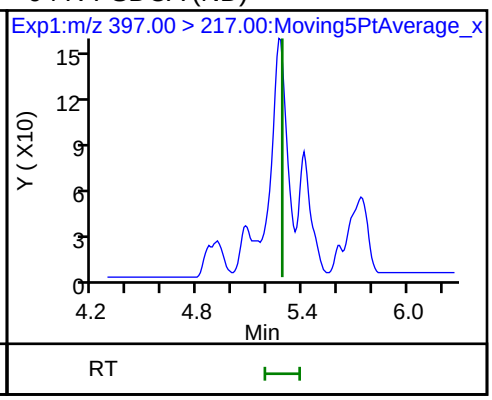
106 Hydro-PS Acid (ND)



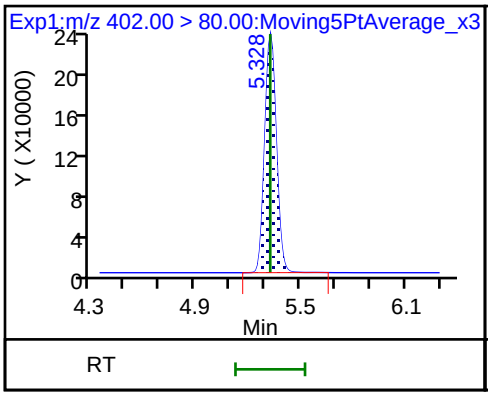
97 Hydro-EVE Acid (ND)



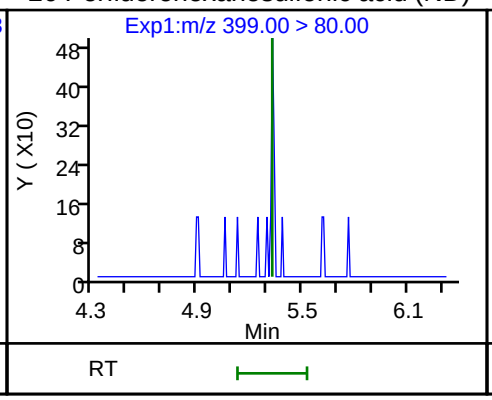
94 R-PSDCA (ND)



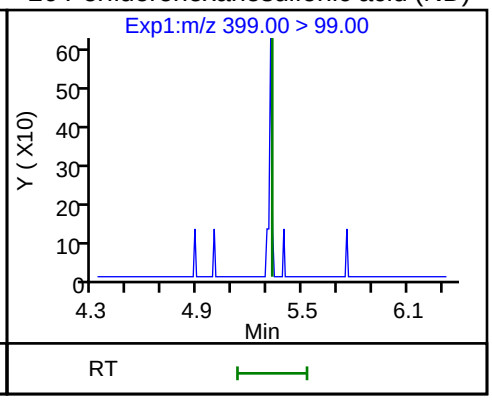
D 25 13C3 PFHxS



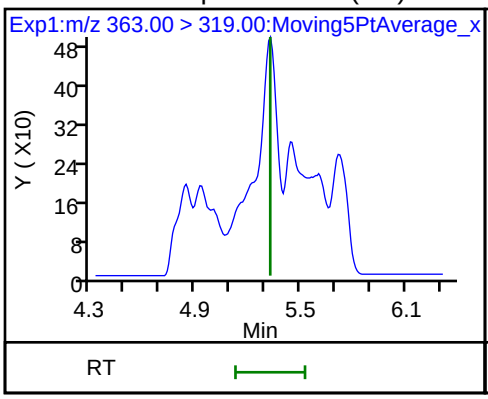
26 Perfluorohexanesulfonic acid (ND)



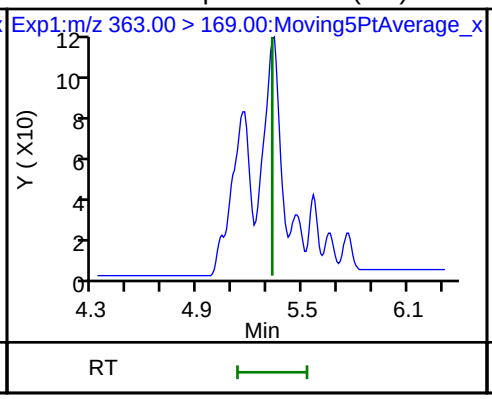
26 Perfluorohexanesulfonic acid (ND)



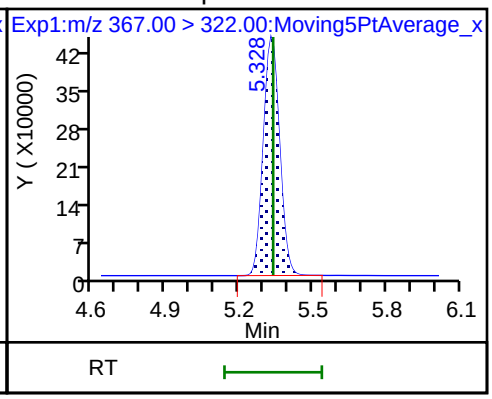
23 Perfluoroheptanoic acid (ND)



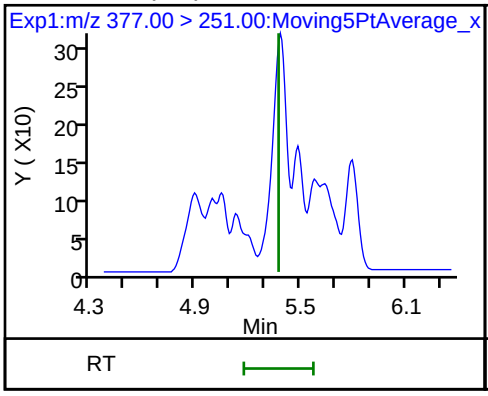
23 Perfluoroheptanoic acid (ND)



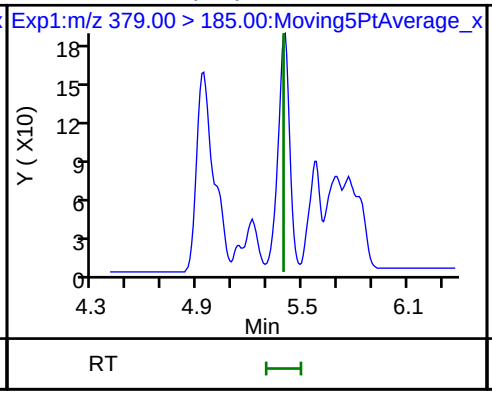
D 24 13C4 PFHpA



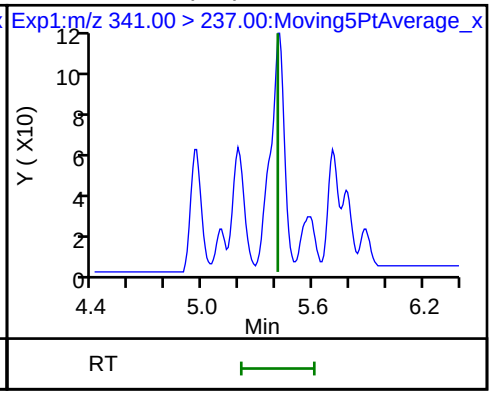
27 DONA (ND)



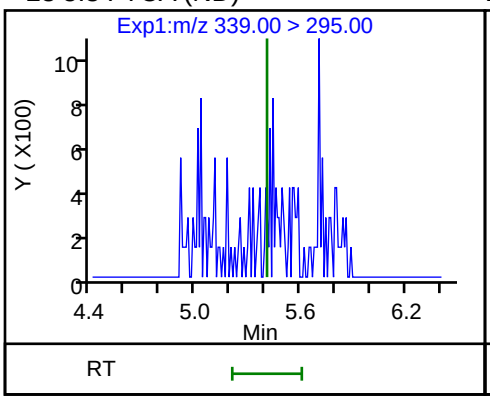
98 PFECA G (ND)



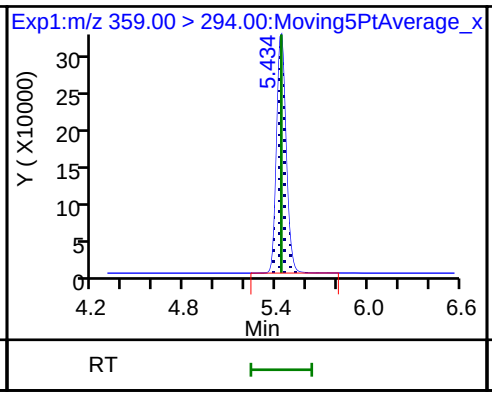
28 5:3 FTCA (ND)



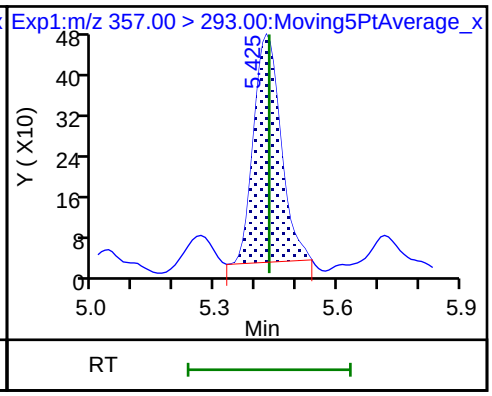
28 5:3 FTCA (ND)



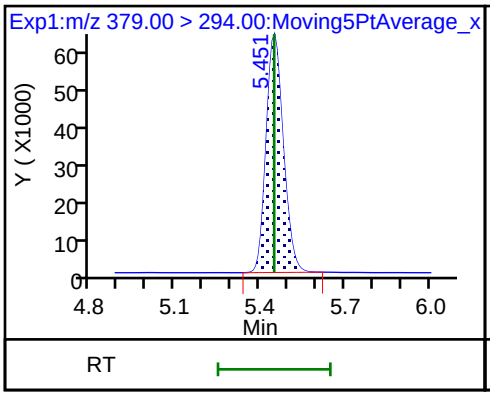
D 30 13C-6:2 FTUCA



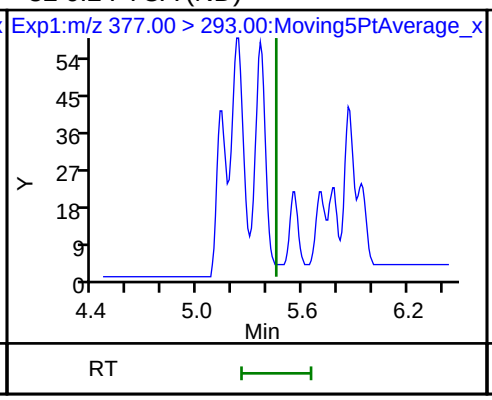
29 6:2 FTUCA



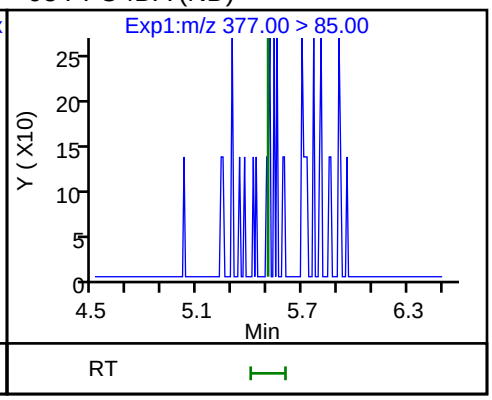
D 31 13C-6:2 FTCA



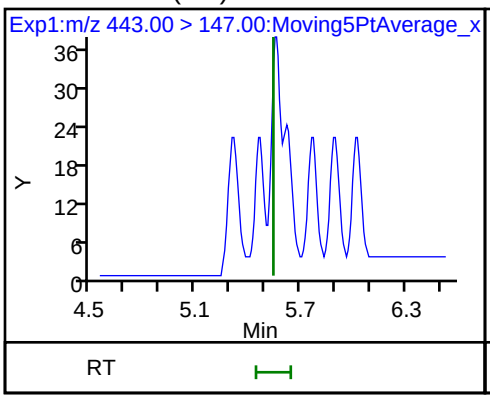
32 6:2 FTCA (ND)



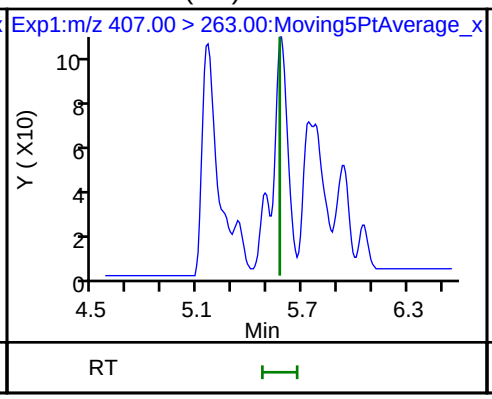
95 PFO4DA (ND)



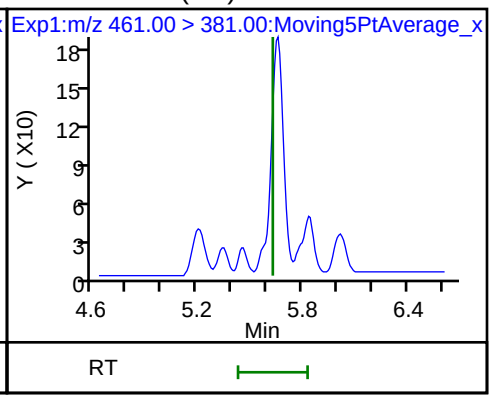
104 PS Acid (ND)



90 EVE Acid (ND)



33 PFECHS (ND)



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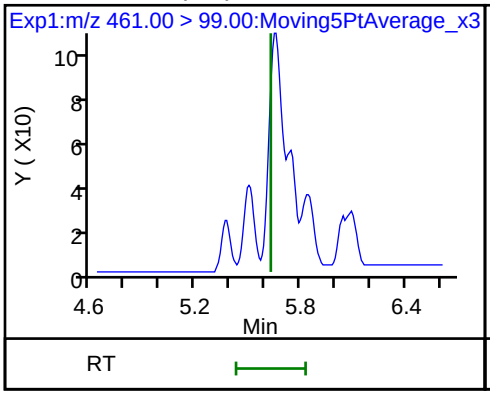
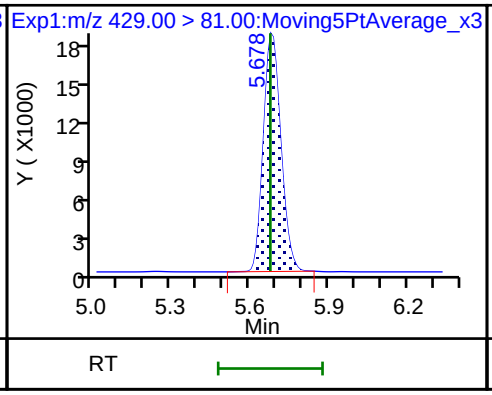
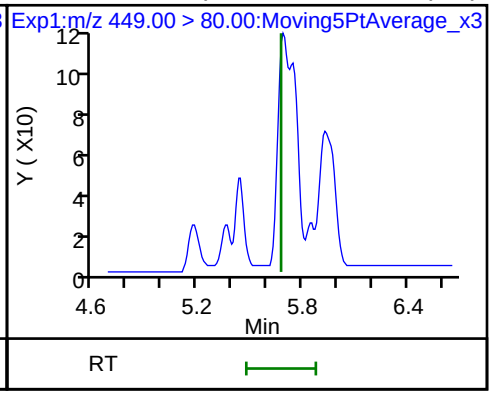


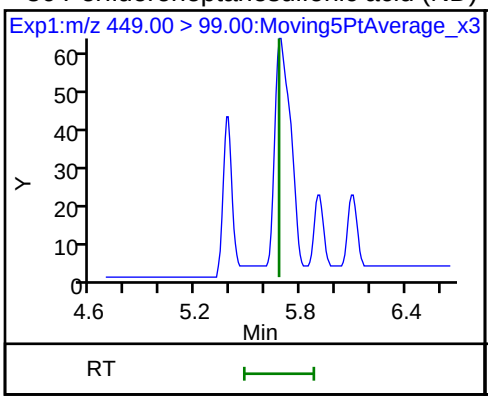
D 35 M2-6:2 FTS



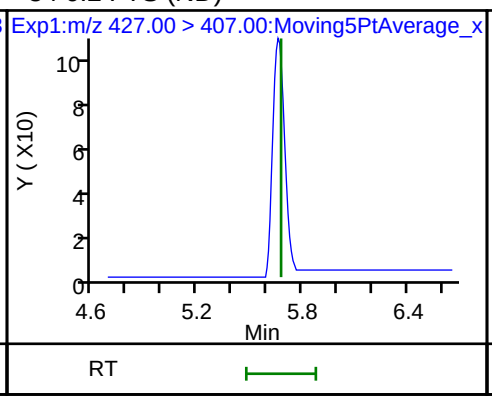
36 Perfluoroheptanesulfonic acid (ND)



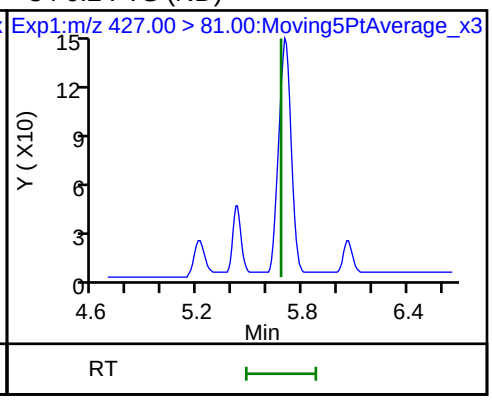
36 Perfluoroheptanesulfonic acid (ND)



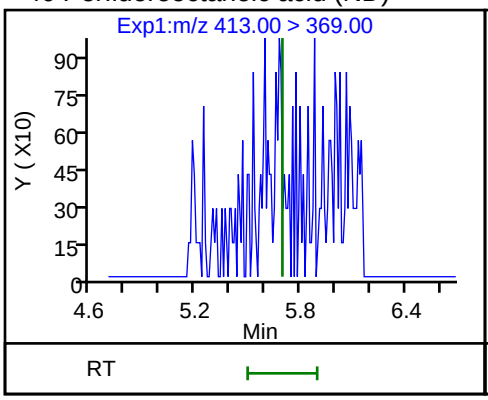
34 6:2 FTS (ND)



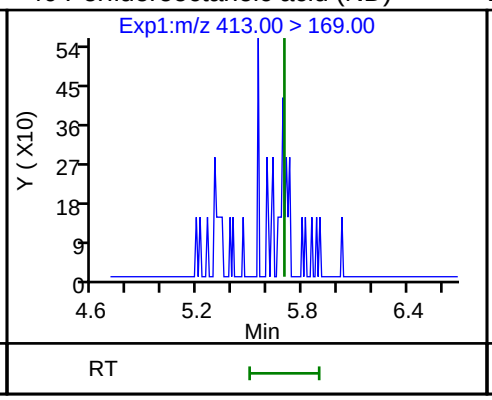
34 6:2 FTS (ND)



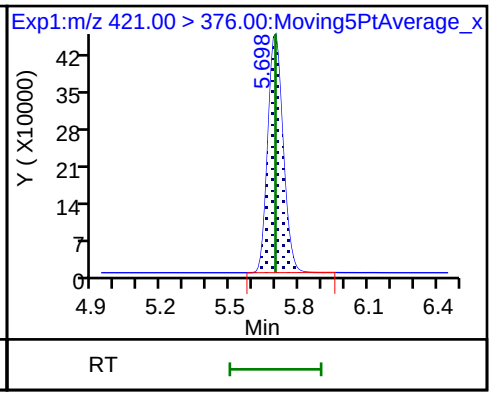
40 Perfluorooctanoic acid (ND)



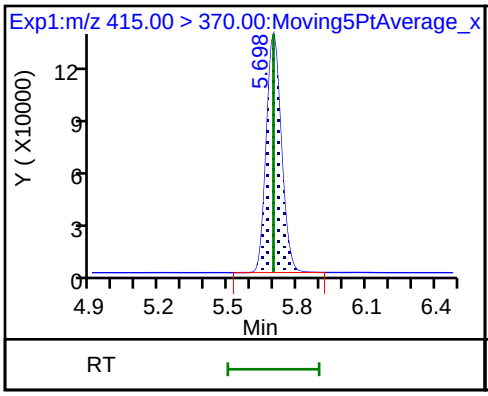
40 Perfluorooctanoic acid (ND)



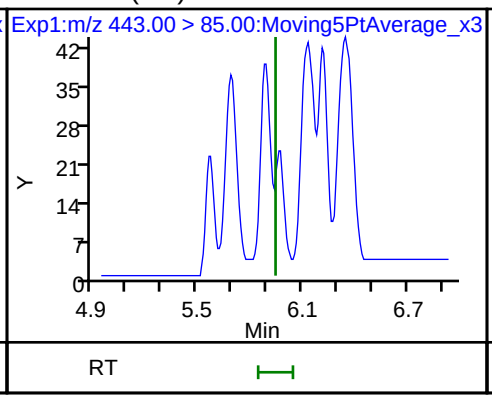
D 37 13C8 PFOA



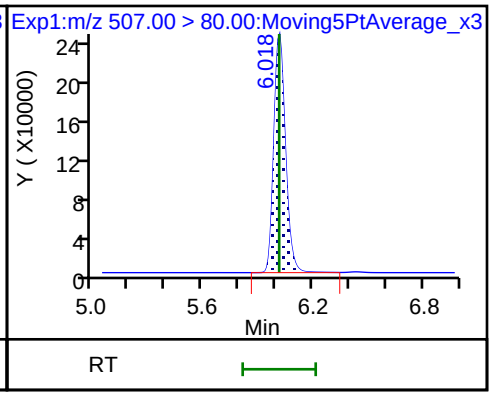
* 38 13C2 PFOA



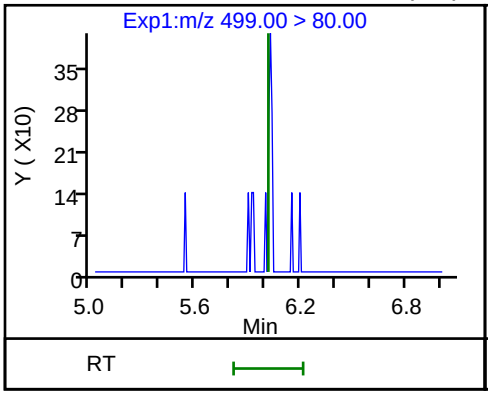
101 TAF (ND)



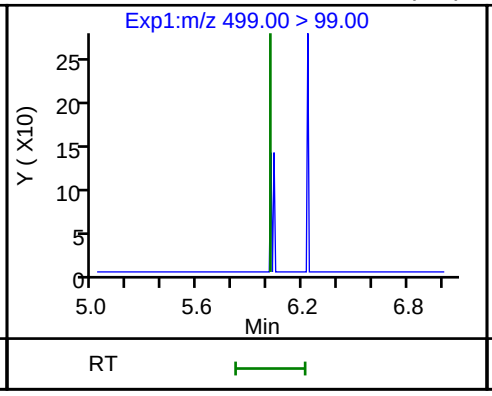
D 41 13C8 PFOS



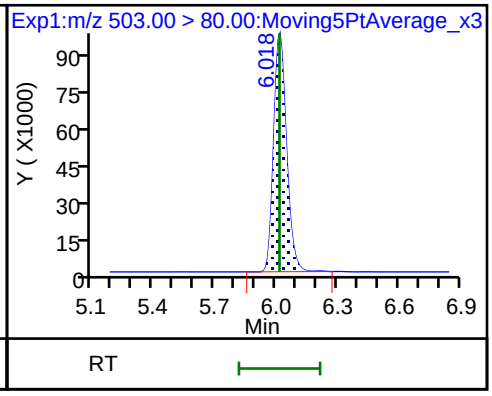
43 Perfluorooctanesulfonic acid (ND)



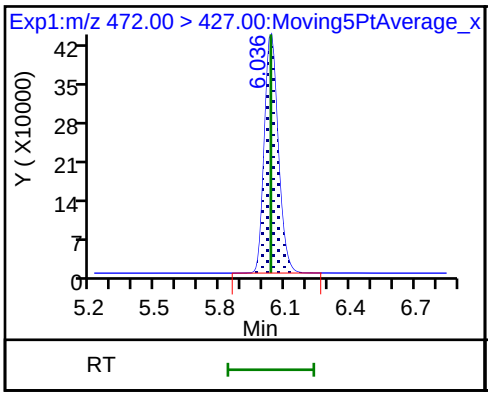
43 Perfluorooctanesulfonic acid (ND)



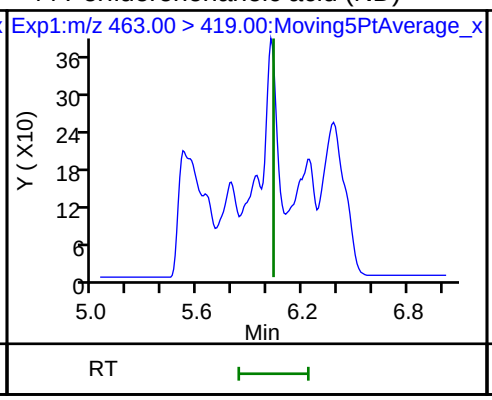
* 42 13C4 PFOS



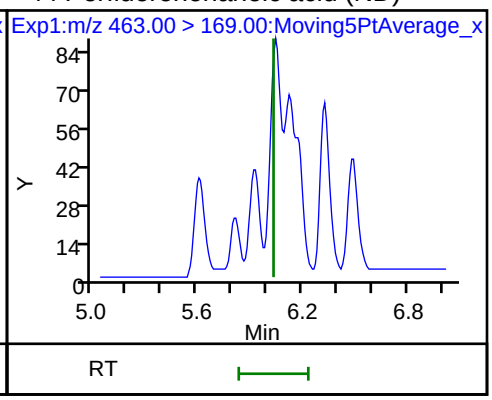
D 45 13C9 PFNA



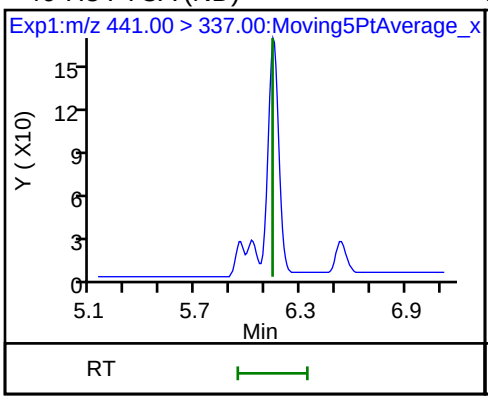
44 Perfluorononanoic acid (ND)



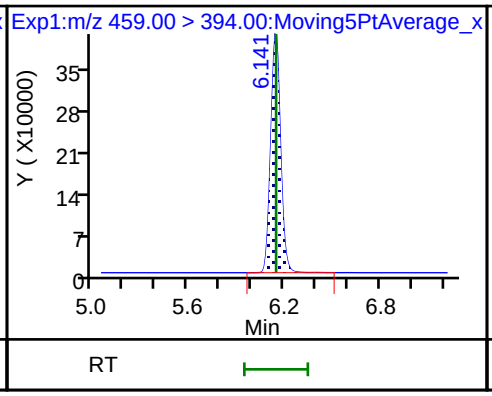
44 Perfluorononanoic acid (ND)



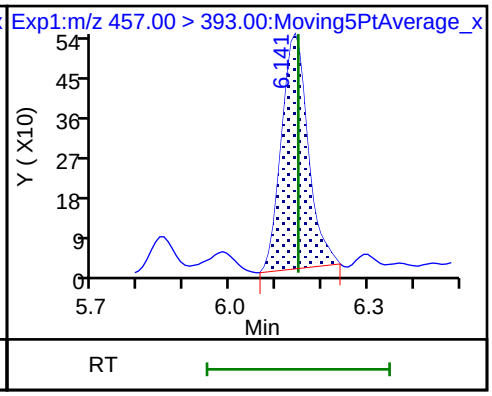
46 7:3 FTCA (ND)



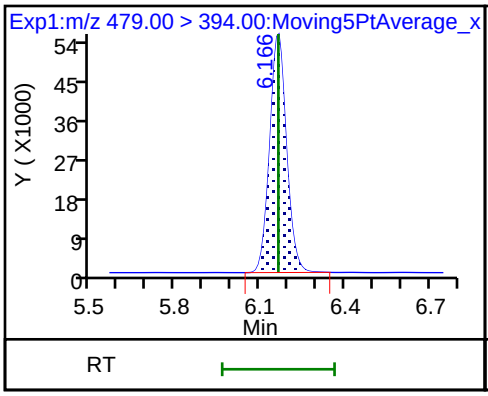
D 48 13C-8:2 FTUCA



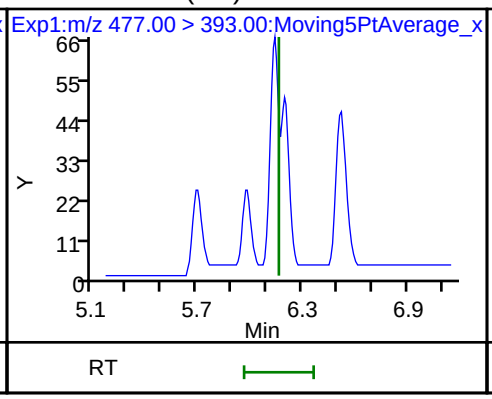
47 8:2 FTUCA



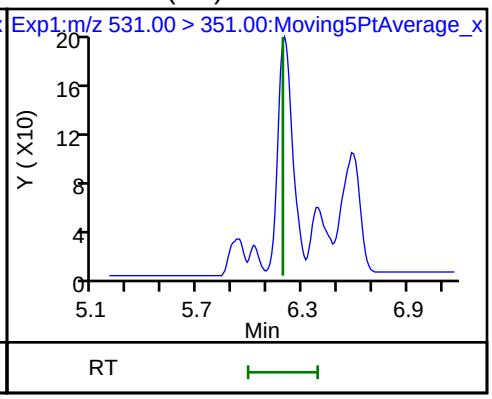
D 50 13C-8:2 FTCA



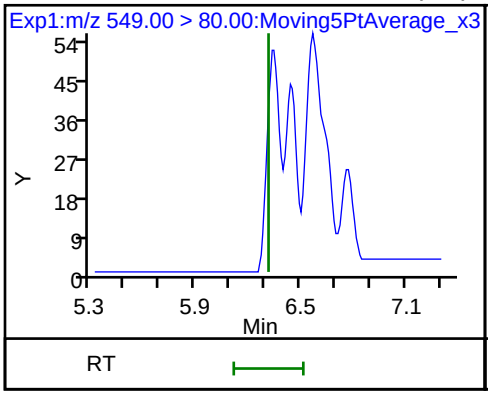
49 8:2 FTCA (ND)



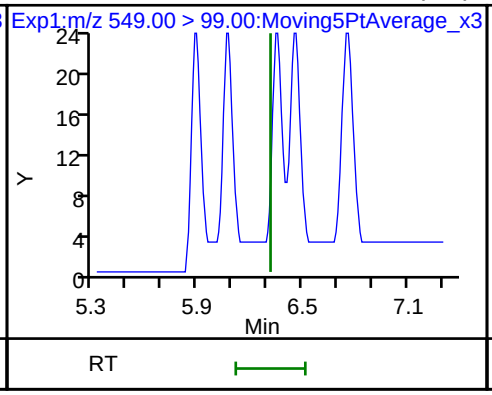
51 9ClFOS (ND)



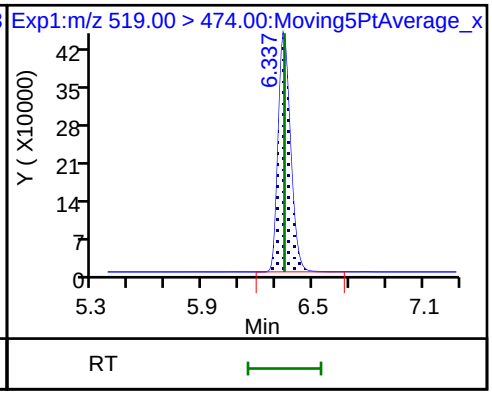
52 Perfluorononanesulfonic acid (ND)



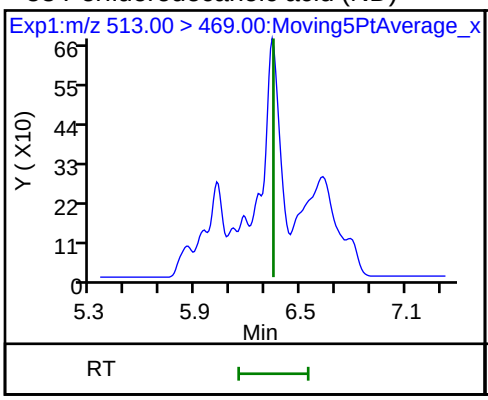
52 Perfluorononanesulfonic acid (ND)



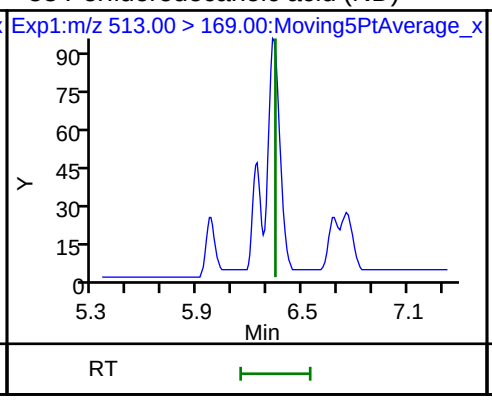
D 54 13C6 PFDA



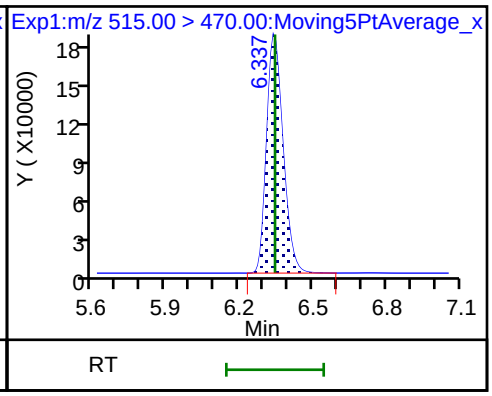
53 Perfluorodecanoic acid (ND)



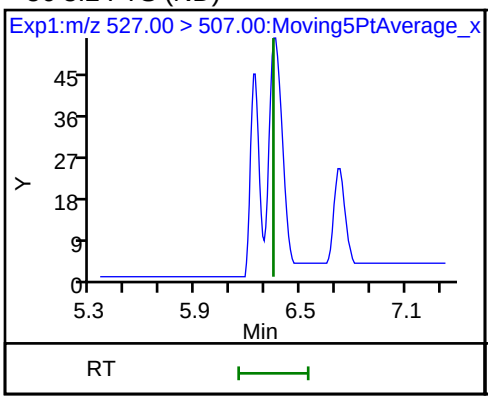
53 Perfluorodecanoic acid (ND)



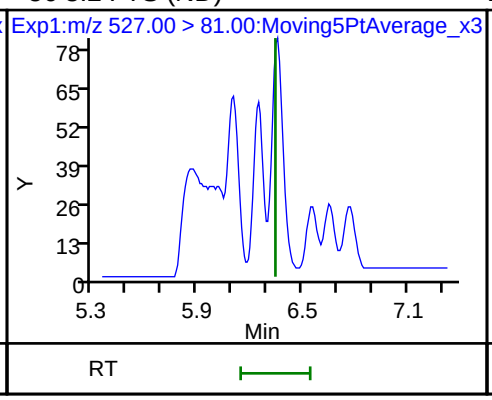
* 55 13C2 PFDA



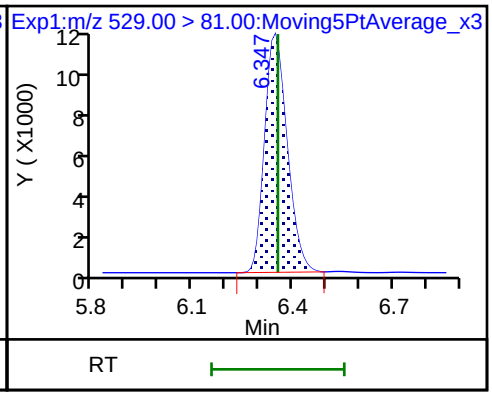
56 8:2 FTS (ND)



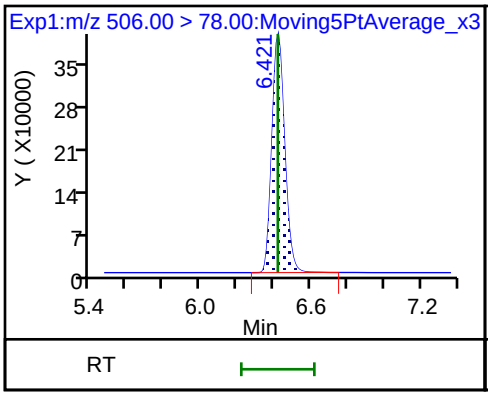
56 8:2 FTS (ND)



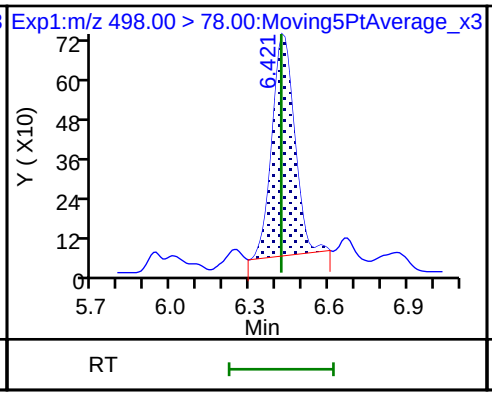
D 57 M2-8:2 FTS



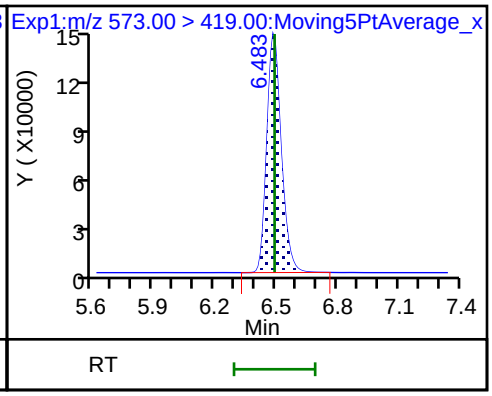
D 59 13C8 FOSA



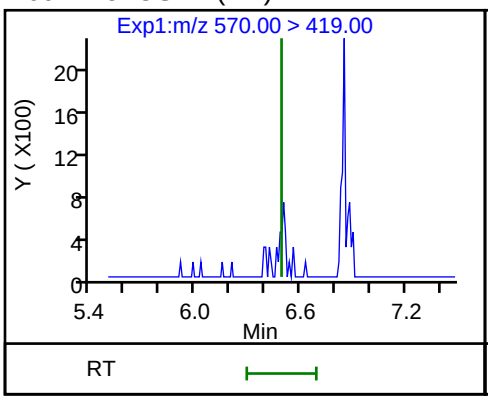
58 Perfluorooctanesulfonamide



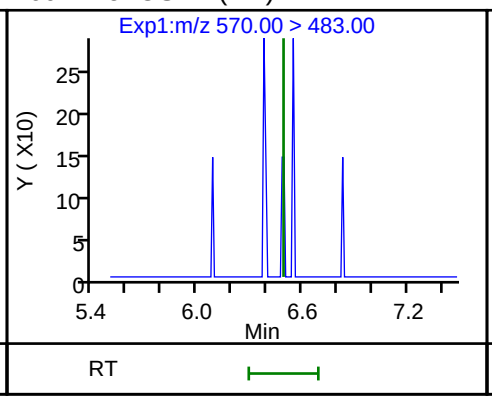
D 61 d3-NMeFOSAA



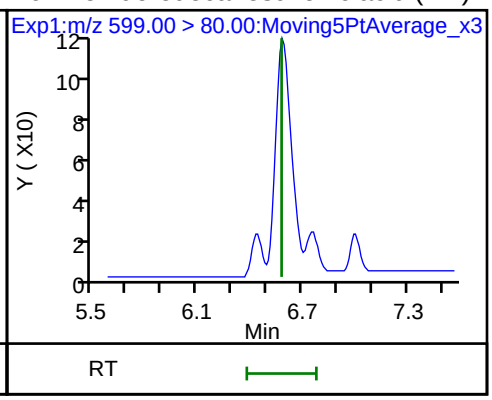
60 NMeFOSAA (ND)



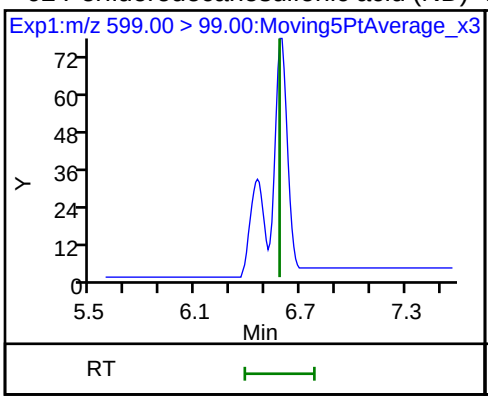
60 NMeFOSAA (ND)



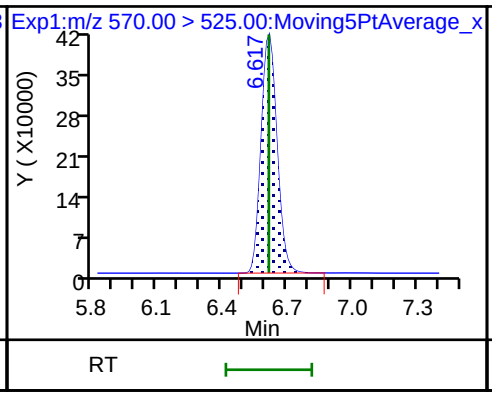
62 Perfluorodecanesulfonic acid (ND)



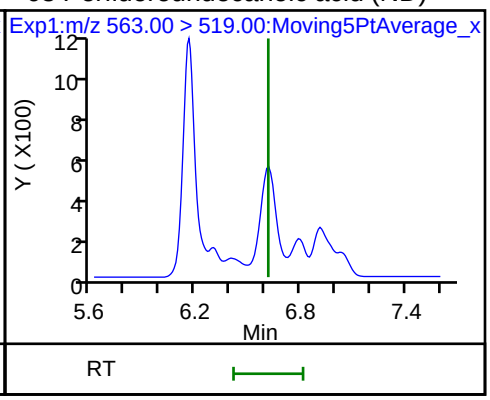
62 Perfluorodecanesulfonic acid (ND)



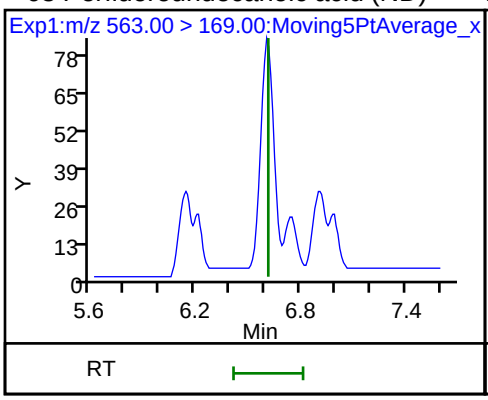
D 65 13C7 PFUnA



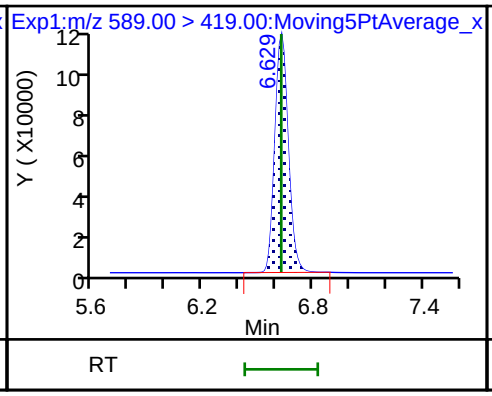
63 Perfluoroundecanoic acid (ND)



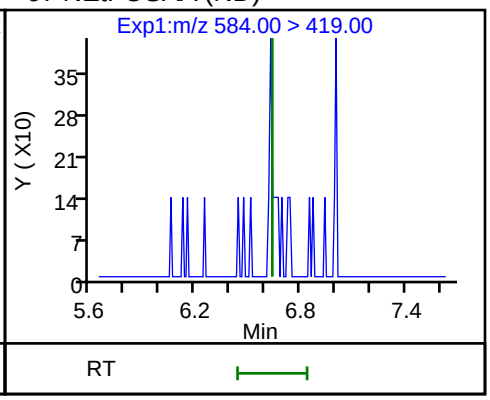
63 Perfluoroundecanoic acid (ND)



D 66 d5-NEtFOSAA



67 NEtFOSAA (ND)



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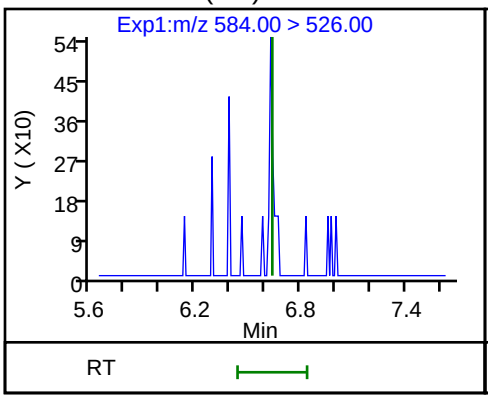
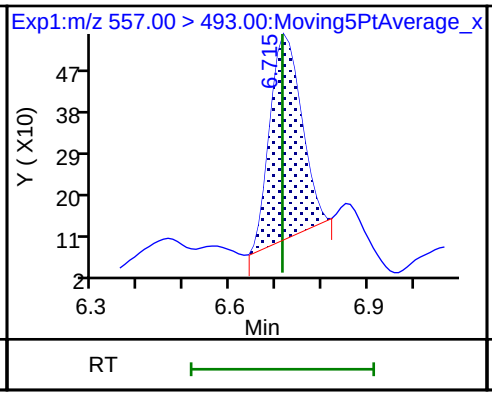
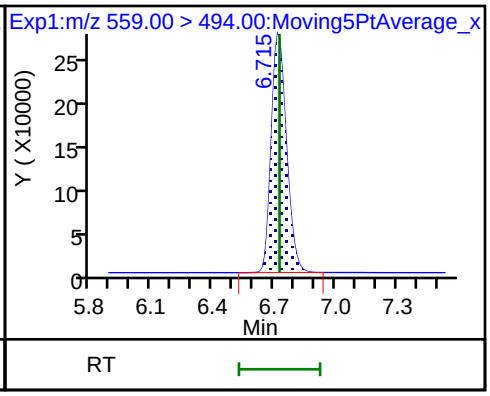


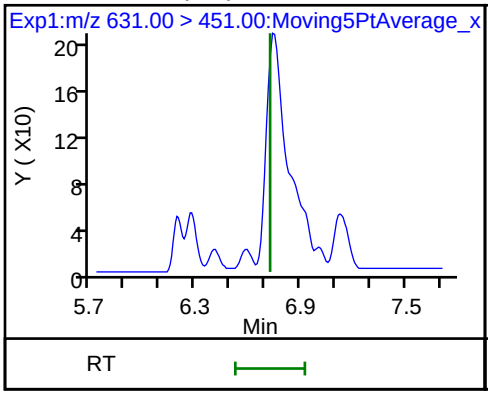
68 10:2 FTUCA



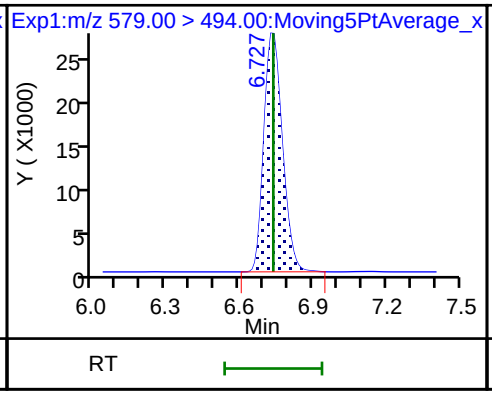
D 70 13C-10:2 FTUCA



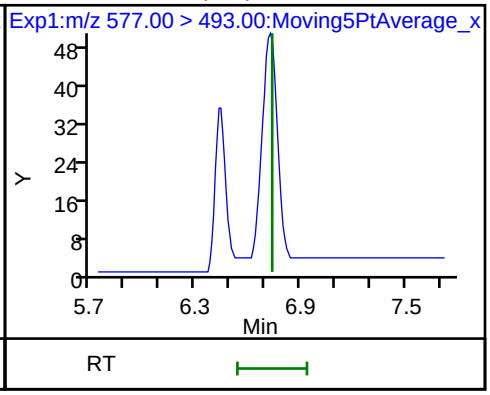
69 11ClFOS (ND)



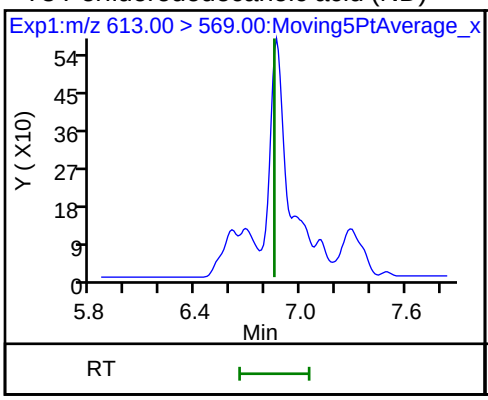
D 72 13C-10:2 FTCA



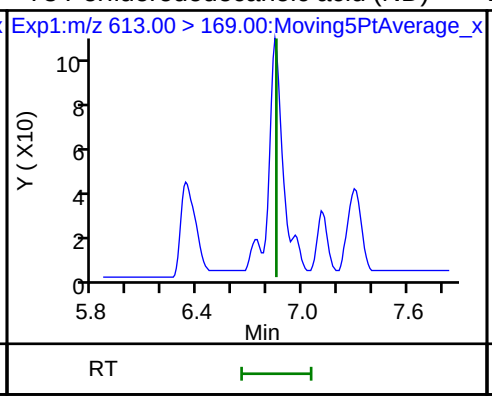
71 10:2 FTCA (ND)



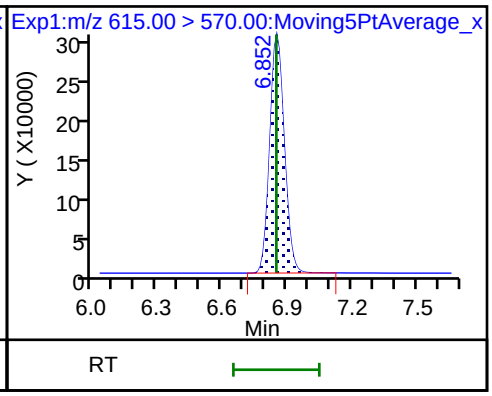
73 Perfluorododecanoic acid (ND)



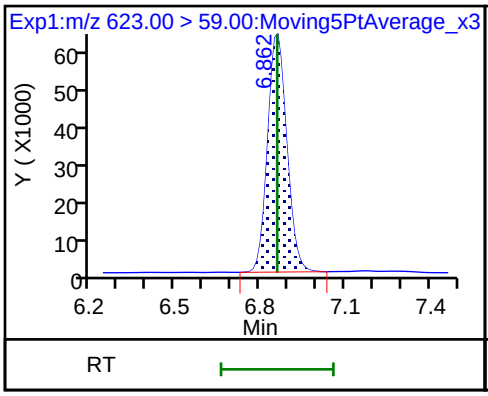
73 Perfluorododecanoic acid (ND)



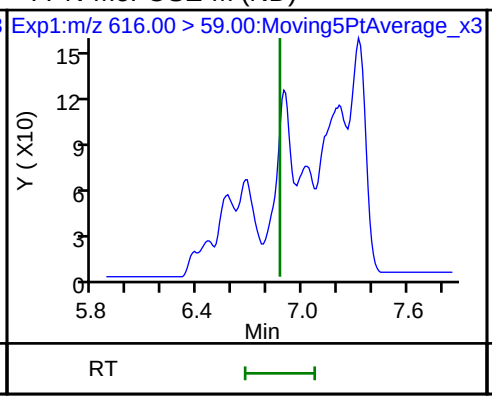
D 74 13C2-PFDoDA



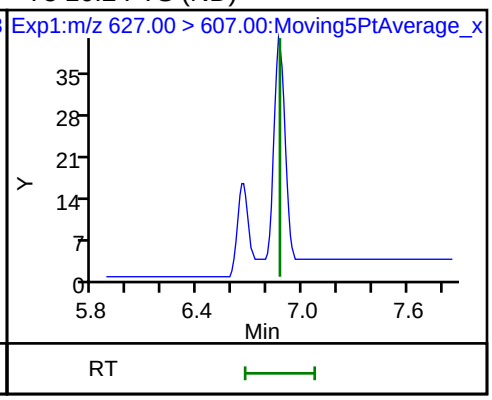
D 76 d7-N-MeFOSE-M



77 N-MeFOSE-M (ND)



75 10:2 FTS (ND)



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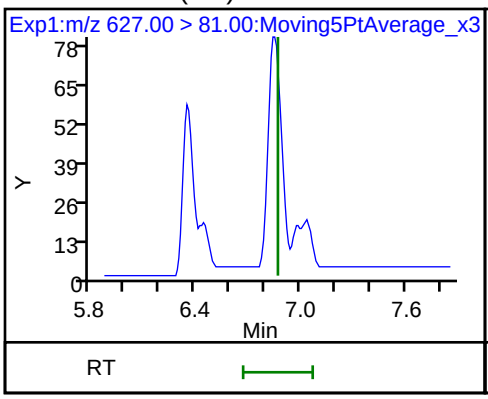
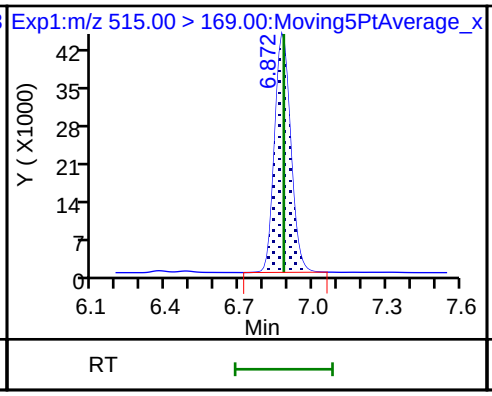
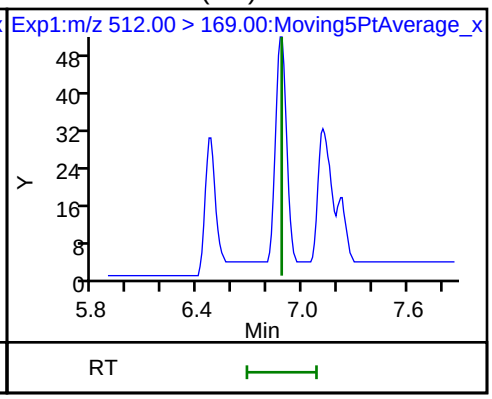


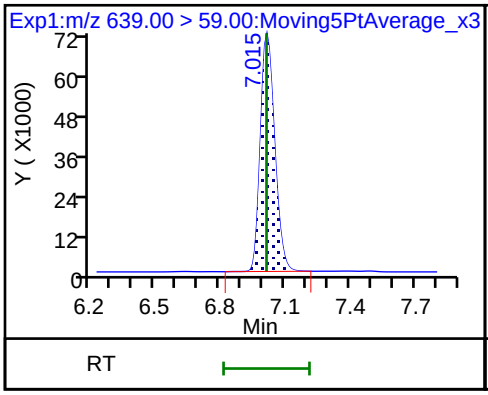
D 79 d3-NMePFOSA



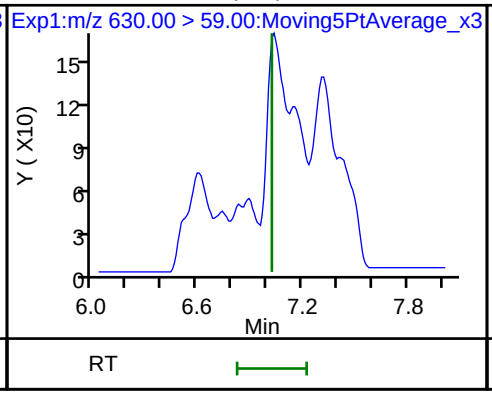
78 NMeFOSA (ND)



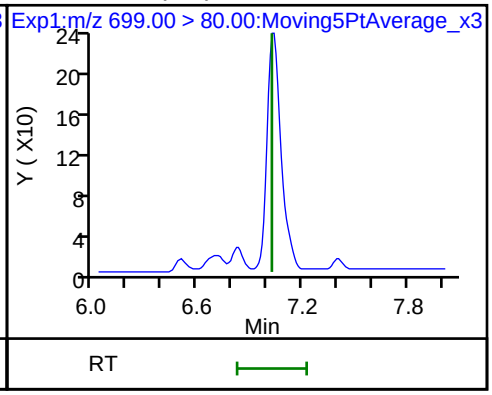
D 81 d9-N-EtFOSE-M



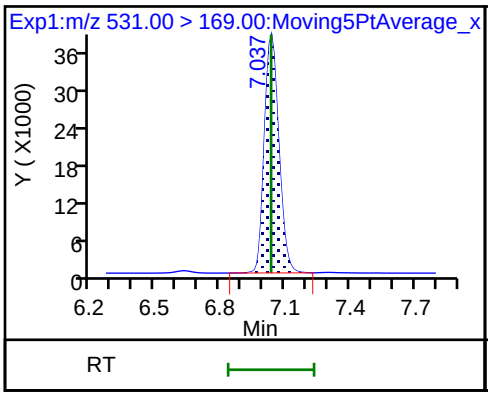
82 N-EtFOSE-M (ND)



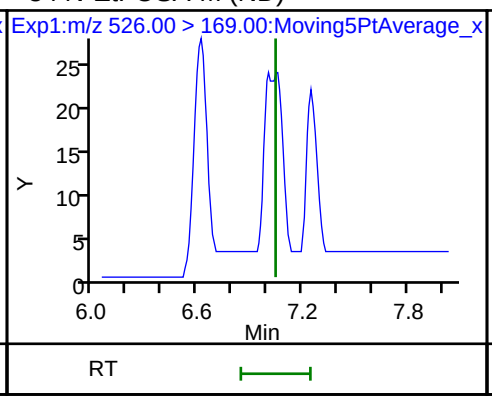
80 PFDoS (ND)



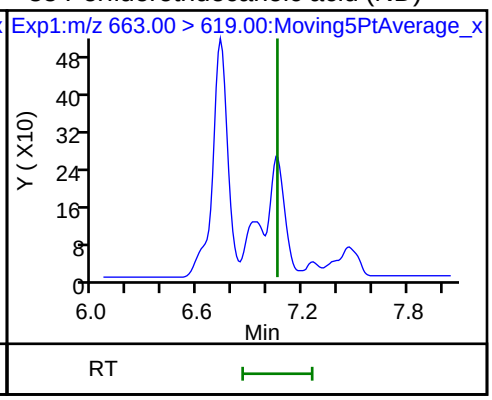
D 83 d5-NEtPFOSA



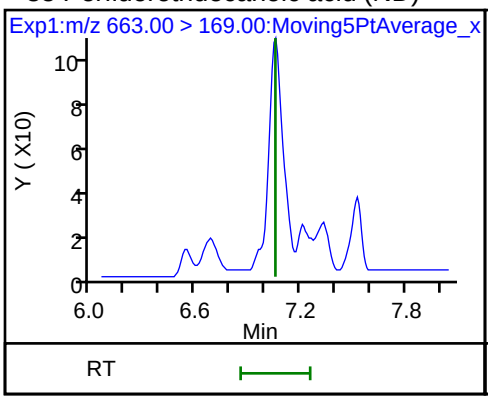
84 N-EtFOSA-M (ND)



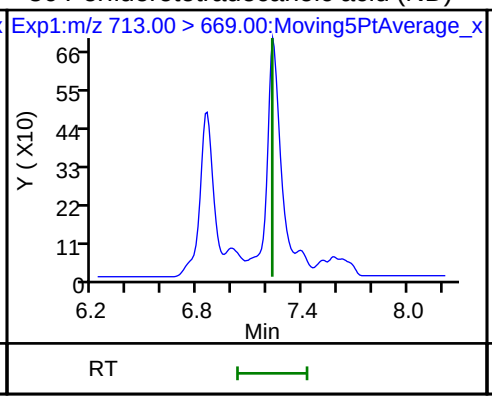
85 Perfluorotridecanoic acid (ND)



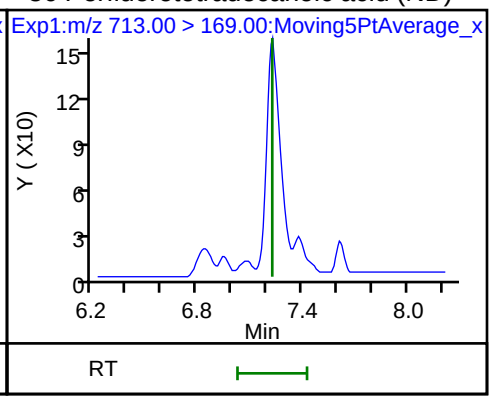
85 Perfluorotridecanoic acid (ND)



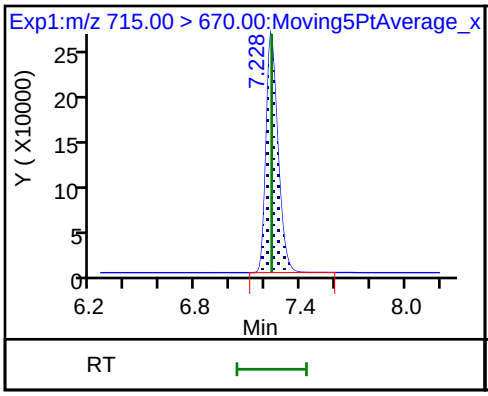
86 Perfluorotetradecanoic acid (ND)



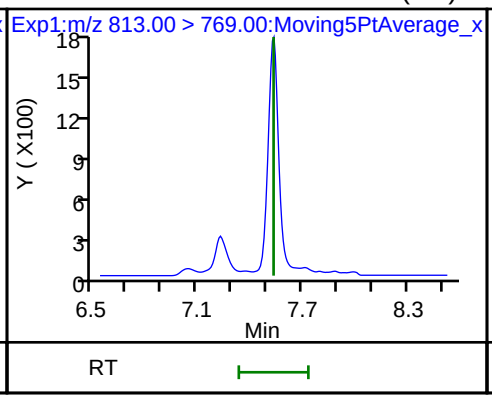
86 Perfluorotetradecanoic acid (ND)



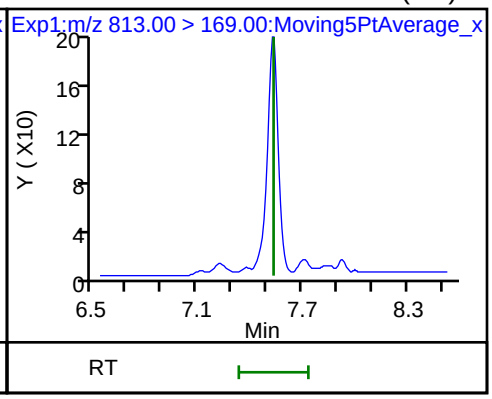
D 87 13C2 PFTeDA



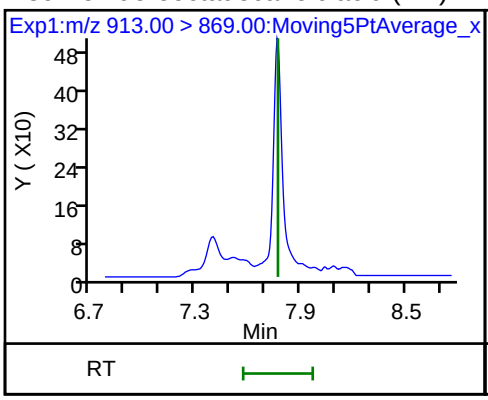
88 Perfluorohexadecanoic acid (ND)



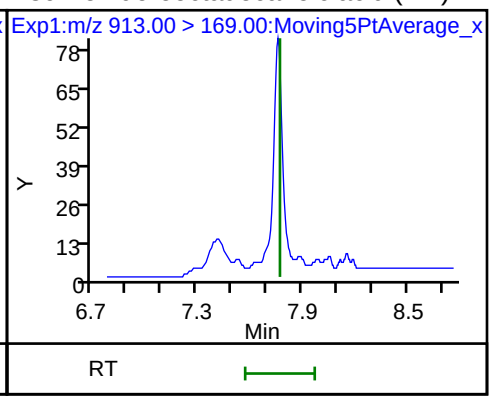
88 Perfluorohexadecanoic acid (ND)



89 Perfluorooctadecanoic acid (ND)



89 Perfluorooctadecanoic acid (ND)



FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID:
Lab Sample ID: ICB 410-228775/8
Matrix: Solid
Lab File ID: 22MAR01MCAL-08.d
Analysis Method: 537 IDA
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 0(mL)
Date Analyzed: 03/01/2022 22:32
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 4(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 228775
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	ND		0.50	0.13
375-85-9	Perfluoroheptanoic acid	ND		0.50	0.13
335-67-1	Perfluorooctanoic acid	ND		0.50	0.13
375-95-1	Perfluorononanoic acid	ND		0.50	0.13
335-76-2	Perfluorodecanoic acid	ND		0.50	0.13
72629-94-8	Perfluorotridecanoic acid	ND		0.50	0.13
376-06-7	Perfluorotetradecanoic acid	0.167	J	0.50	0.13
375-73-5	Perfluorobutanesulfonic acid	ND		0.50	0.13
355-46-4	Perfluorohexanesulfonic acid	ND		0.50	0.13
1763-23-1	Perfluorooctanesulfonic acid	ND		0.50	0.13
2991-50-6	NEtFOSAA	0.342	J	1.3	0.13
2355-31-9	NMeFOSAA	0.267	J	0.50	0.15
375-92-8	Perfluoroheptanesulfonic acid	ND		0.50	0.13
335-77-3	Perfluorodecanesulfonic acid	ND		0.50	0.13
754-91-6	Perfluorooctanesulfonamide	ND		0.50	0.13
375-22-4	Perfluorobutanoic acid	ND		1.3	0.50
2058-94-8	Perfluoroundecanoic acid	ND		0.50	0.13
307-55-1	Perfluorododecanoic acid	ND		0.50	0.13
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		1.3	0.50
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.75	0.25
2706-90-3	Perfluoropentanoic acid	ND		0.50	0.13

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 410-228775/8

Matrix: Solid Lab File ID: 22MAR01MCAL-08.d

Analysis Method: 537 IDA Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 03/01/2022 22:32

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 4(uL) GC Column: Gemini C18 50mm ID: 3(mm)

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

Analysis Batch No.: 228775 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	136		15-200
STL02279	M2-6:2 FTS	150		10-200
STL02577	13C5 PFHxA	127		10-174
STL01892	13C4 PFHpA	131		10-178
STL01052	13C8 PFOA	134		26-159
STL02578	13C9 PFNA	125		26-165
STL02579	13C6 PFDA	128		26-161
STL02580	13C7 PFUnA	130		12-173
STL02703	13C2-PFDoDA	126		11-166
STL02116	13C2 PFTeDA	118		10-169
STL02337	13C3 PFBS	131		27-179
STL02581	13C3 PFHxS	136		24-171
STL01054	13C8 PFOS	126		41-154
STL02118	d3-NMeFOSAA	127		10-178
STL02117	d5-NEtFOSAA	148		10-193
STL01056	13C8 FOSA	138		14-163
STL00992	13C4 PFBA	126		28-153
STL01893	13C5 PFPeA	131		24-161

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-08.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 01-Mar-2022 22:32:59 ALS Bottle#: 20001 Worklist Smp#: 8
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: ICB
Misc. Info.: Plate: 1 Rack: 1 410-0051412-008
Operator ID: US19_USR_INS20261 Instrument ID: 30728

Method: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 08:37:17 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617

First Level Reviewer: polaskia Date: 01-Mar-2022 23:28:52
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.017	1.065	-0.048	0.267	2864	0.0141			4.2	
1 MTP										
175.00 > 97.00		1.518				ND				
2 PPF Acid										
163.00 > 119.00		1.874				ND				
3 PFMOAA										
179.00 > 85.00		2.891				ND				
4 R-PSDA										
441.00 > 241.00		3.792				ND				
5 R-EVE										
405.00 > 217.00		3.793				ND				
D 6 13C4 PFBA										
217.00 > 172.00	3.814	3.808	0.006	1.000	7637476	12.6		126	165265	
* 8 13C3-PFBA										
216.00 > 172.00	3.814	3.815	-0.001		2799371	5.00			9701	
7 Perfluorobutanoic acid										
213.00 > 169.00		3.816				ND				
9 Hydrolyzed PSDA										
439.00 > 343.00		3.817				ND				
10 PMPA										
229.00 > 185.00		3.956				ND				
11 PFPrS										
249.00 > 99.00		4.020				ND				
12 NVHOS										
297.00 > 135.00		4.060				ND				
13 PFECA F										
229.00 > 85.00	4.063	4.082	-0.019	1.065	2785	0.003844			338	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
14 PFO2HxA										
245.00 > 85.00		4.286				ND				
15 3:3 FTCA										
241.00 > 177.00		4.403				ND				
16 Perfluoropentanoic acid										
263.00 > 219.00		4.404				ND				
D 17 13C5 PFPeA										
268.00 > 223.00	4.405	4.405	0.0	1.155	6430753	13.1		131	133714	
D 19 13C3 PFBS										
302.00 > 80.00	4.462	4.454	0.008	1.170	6040858	12.2		131	316462	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00		4.460				ND				
299.00 > 99.00		4.460								
20 PEPA										
279.00 > 235.00		4.517				ND				
21 PFECA A										
279.00 > 85.00		4.543				ND				
22 PES										
315.00 > 135.00		4.638				ND				
23 PFECA B										
201.00 > 85.00		4.771				ND				
295.00 > 201.00		4.771								
110 FBSA										
299.00 > 78.00		4.792				ND				
24 4:2 FTS										
327.00 > 307.00		4.803				ND				
327.00 > 81.00		4.803								
D 25 M2-4:2 FTS										
329.00 > 81.00	4.804	4.805	-0.001	0.854	1117780	14.3		153	57014	
26 Perfluorohexanoic acid										
313.00 > 269.00		4.843				ND				
313.00 > 119.00		4.843								
D 27 13C5 PFHxA										
318.00 > 273.00	4.844	4.845	-0.001	0.861	8163048	12.7		127	224740	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00		4.863				ND				
349.00 > 99.00		4.863								
29 PFO3OA										
311.00 > 85.00		4.903				ND				
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.976	4.977	-0.001	0.884	2121280	14.0		140	140328	
30 HFPO-DA										
329.00 > 285.00		4.978				ND				
32 Hydro-EVE Acid										
427.00 > 283.00	5.210	5.201	0.009	1.366	7463	0.007108			175	
33 R-PSDCA										
397.00 > 217.00	5.210	5.209	0.001	1.168	981	0.000613			26.1	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
108 FBSEE										
386.00 > 166.00		5.220				ND				
386.00 > 80.00		5.220								
34 Hydro-PS Acid										
463.00 > 263.00		5.246				ND				
35 Perfluorohexanesulfonic acid										
399.00 > 80.00		5.254				ND				
399.00 > 99.00		5.254								
36 Perfluoroheptanoic acid										R
363.00 > 319.00	5.242	5.254	-0.012	0.998	2813	0.003373	Target=3.54		26.5	R
363.00 > 169.00	5.242	5.254	-0.012	0.998	2793		1.01(1.77-5.31)		91.0	
D 37 13C3 PFHxS										
402.00 > 80.00	5.242	5.254	-0.012	0.932	5890782	12.9		136	364924	
D 38 13C4 PFHpA										
367.00 > 322.00	5.253	5.254	-0.001	0.934	9103572	13.1		131	185639	
39 DONA										
377.00 > 251.00		5.303				ND				
40 PFECA G										
379.00 > 185.00		5.322				ND				
41 5:3 FTCA										
341.00 > 237.00		5.338				ND				
341.00 > 217.00		5.338								
42 6:2 FTUCA										
357.00 > 293.00	5.349	5.359	-0.010	1.000	4020	0.006762			41.5	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.349	5.359	-0.010	0.951	4796197	12.6		126	120782	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.376	5.378	-0.002	0.956	915510	15.3		153	37437	
44 6:2 FTCA										
377.00 > 293.00		5.378				ND				
46 PFO4DA										
377.00 > 85.00	5.368	5.435	-0.067	1.407	2294	0.005328			148	
47 PS Acid										
443.00 > 147.00		5.479				ND				
48 EVE Acid										
407.00 > 263.00		5.500				ND				
49 PFECHS										
461.00 > 381.00		5.569				ND				
461.00 > 99.00		5.569								
D 52 M2-6:2 FTS										
429.00 > 81.00	5.609	5.612	-0.003	0.997	400594	14.3		150	27487	
50 6:2 FTS										
427.00 > 407.00		5.613				ND				
427.00 > 81.00		5.613								
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00		5.618				ND				
449.00 > 99.00		5.618								

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 Perfluorooctanoic acid										
413.00 > 369.00		5.630				ND				
413.00 > 169.00		5.630								
* 55 13C2 PFOA										
415.00 > 370.00	5.626	5.630	-0.004		2779526	5.00			143031	
D 54 13C8 PFOA										
421.00 > 376.00	5.618	5.630	-0.012	0.998	9105324	13.4		134	462683	
106 FHxSA										
399.00 > 78.00		5.692				ND				
56 TAF										
443.00 > 85.00		5.879				ND				
57 Perfluorooctanesulfonic acid										
499.00 > 80.00		5.954				ND				
499.00 > 99.00		5.954								
* 59 13C4 PFOS										
503.00 > 80.00	5.951	5.957	-0.005		2453510	4.78			173537	
D 58 13C8 PFOS										
507.00 > 80.00	5.951	5.957	-0.005	1.000	5991583	12.1		126	74544	
61 Perfluorononanoic acid										
463.00 > 419.00		5.973				ND				
463.00 > 169.00		5.973								
D 60 13C9 PFNA										
472.00 > 427.00	5.968	5.974	-0.006	1.003	6095664	12.5		125	433712	
109 HFPO-TrA										
496.00 > 185.00		6.068				ND				
62 7:3 FTCA										
441.00 > 337.00	6.067	6.077	-0.010	1.129	11212	0.0504			324	
63 8:2 FTUCA										
457.00 > 393.00	6.077	6.084	-0.007	1.000	12167	0.0238			257	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.077	6.084	-0.007	0.968	5412336	14.1		141	124621	
65 8:2 FTCA										
477.00 > 393.00	6.096	6.099	-0.003	1.000	1714	0.0252			113	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.096	6.104	-0.008	0.971	680665	15.7		157	46564	
67 9ClFOS										
531.00 > 351.00	6.126	6.130	-0.004	1.030	3234	0.003671			30.8	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.250	6.254	-0.004	1.050	6377	0.0105	Target=4.33		388	
549.00 > 99.00	6.250	6.254	-0.004	1.050	1033		6.17(2.16-6.49)		92.0	
69 Perfluorodecanoic acid										
513.00 > 469.00		6.279				ND				
513.00 > 169.00		6.279								
* 70 13C2 PFDA										
515.00 > 470.00	6.275	6.281	-0.006		3154913	5.00			228091	
D 71 13C6 PFDA										
519.00 > 474.00	6.275	6.281	-0.006	1.000	7721025	12.8		128	417477	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 73 M2-8:2 FTS										
529.00 > 81.00	6.275	6.281	-0.006	1.000	204042	13.1		136	14732	
72 8:2 FTS										
527.00 > 507.00		6.282				ND				
527.00 > 81.00		6.282								
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.367	6.371	-0.004	1.000	18500	0.0174			152	
D 74 13C8 FOSA										
506.00 > 78.00	6.367	6.374	-0.007	1.015	10712682	13.8		138	526643	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.419	6.426	-0.007	1.023	2148902	12.7		127	137901	
76 NMeFOSAA										M
570.00 > 419.00	6.429	6.429	0.0	1.002	50553	0.2667	Target=1.69		2730	M
570.00 > 483.00	6.419	6.429	-0.010	1.000	30908		1.64(0.85-2.54)		48.8	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.519	6.522	-0.003	1.096	11274	0.0188	Target=4.28		373	
599.00 > 99.00	6.519	6.522	-0.003	1.096	2623		4.30(2.14-6.42)		167	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.542	6.550	-0.008	1.000	24545	0.0398	Target=7.28		268	
563.00 > 169.00	6.542	6.550	-0.008	1.000	3116		7.88(3.64-10.92)		185	
D 80 13C7 PFUnA										
570.00 > 525.00	6.542	6.551	-0.009	1.042	8276366	13.0		130	251178	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.554	6.562	-0.008	1.044	1794461	14.8		148	64299	
82 NEtFOSAA										M
584.00 > 419.00	6.565	6.570	-0.005	1.002	58899	0.3418	Target=1.63		8864	M
584.00 > 526.00	6.554	6.570	-0.016	1.000	31738		1.86(0.82-2.45)		46.3	
83 10:2 FTUCA										M
557.00 > 493.00	6.646	6.654	-0.008	1.000	81739	0.1917			1538	M
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.646	6.654	-0.008	1.059	4434846	13.1		131	205425	
84 11ClFOS										
631.00 > 451.00	6.657	6.660	-0.003	1.119	10782	0.0166			291	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.668	6.665	0.003	1.063	463038	14.7		147	28617	
86 10:2 FTCA										
577.00 > 493.00	6.657	6.670	-0.013	0.998	10722	0.2381			634	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.782	6.787	-0.005	1.000	45089	0.0806	Target=4.76		846	
613.00 > 169.00	6.782	6.787	-0.005	1.000	7586		5.94(2.38-7.14)		274	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.782	6.791	-0.009	1.081	6129608	12.6		126	224745	
90 10:2 FTS										
627.00 > 607.00	6.805	6.810	-0.005	1.084	4668	0.0519	Target=0.75		266	
627.00 > 81.00	6.805	6.810	-0.005	1.084	4835		0.97(0.38-1.13)		286	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.805	6.813	-0.008	1.084	1680701	13.3		133	15041	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 N-MeFOSE-M										
616.00 > 59.00	6.816	6.820	-0.004	1.002	4562	0.0267			78.5	
94 NMeFOSA										
512.00 > 169.00	6.816	6.829	-0.013	0.998	1141	0.0120			83.3	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.826	6.834	-0.008	1.088	978067	12.2		122	18498	
95 PFDoS										
699.00 > 80.00	6.964	6.967	-0.003	1.170	32386	0.0606			908	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.964	6.971	-0.007	1.110	1771553	12.4		124	22766	
97 N-EtFOSE-M										
630.00 > 59.00	6.973	6.981	-0.008	1.001	6665	0.0374			150	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.992	6.990	0.002	1.114	1024337	13.7		137	22915	
100 N-EtFOSA-M										
526.00 > 169.00	6.992	6.996	-0.004	1.000	1578	0.0147			67.8	
99 Perfluorotridecanoic acid										M
663.00 > 619.00	6.992	6.996	-0.004	1.031	51224	0.1056	Target=4.11		937	M
663.00 > 169.00	6.992	6.996	-0.004	1.031	10523		4.87(2.06-6.17)		693	
105 HFPOTeA										
661.00 > 185.00		7.058				ND				
661.00 > 119.00		7.058								
D 102 13C2 PFTeDA										
715.00 > 670.00	7.172	7.179	-0.007	1.143	4615802	11.8		118	318759	
101 Perfluorotetradecanoic acid										M
713.00 > 669.00	7.172	7.181	-0.009	1.000	68032	0.1669	Target=4.34		1022	M
713.00 > 169.00	7.172	7.181	-0.009	1.000	14944		4.55(2.17-6.50)		759	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.472	7.483	-0.011	1.042	106925	0.3978	Target=5.44		1474	
813.00 > 169.00	7.472	7.483	-0.011	1.042	18697		5.72(2.72-8.16)		738	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.716	7.717	-0.001	1.076	150565	0.7793	Target=6.37		2310	
913.00 > 169.00	7.709	7.717	-0.008	1.075	22953		6.56(3.18-9.55)		1007	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Reagents:

PFC_IS_MOD_00278 Amount Added: 50.00 Units: uL

PFC_SS_MODX_00216 Amount Added: 25.00 Units: uL

Report Date: 02-Mar-2022 08:38:34 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-08.d

Injection Date: 01-Mar-2022 22:32:59 Instrument ID: 30728

Lims ID: ICB

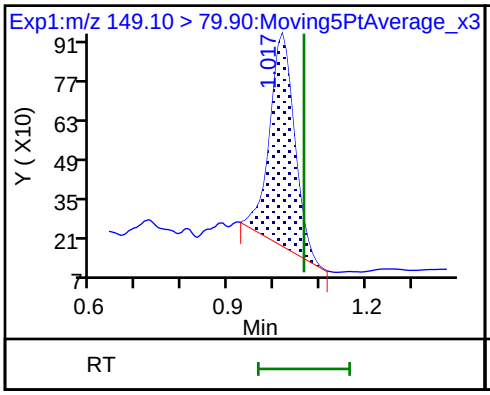
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 20001 Worklist Smp#: 8

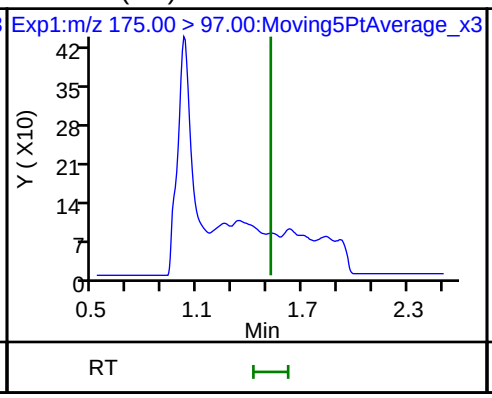
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

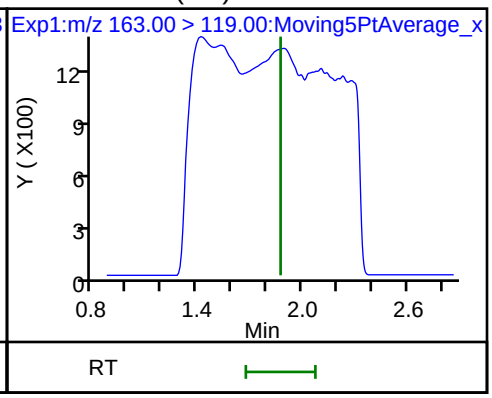
107 Sodium trifluoromethanesulfonate



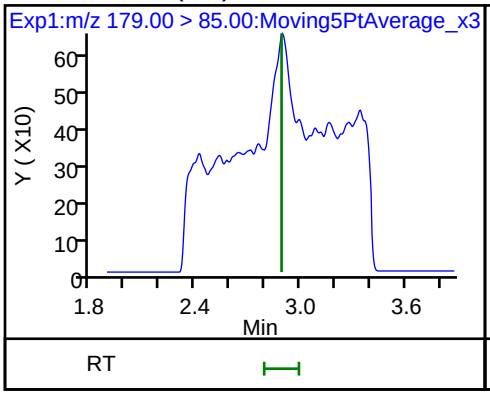
1 MTP (ND)



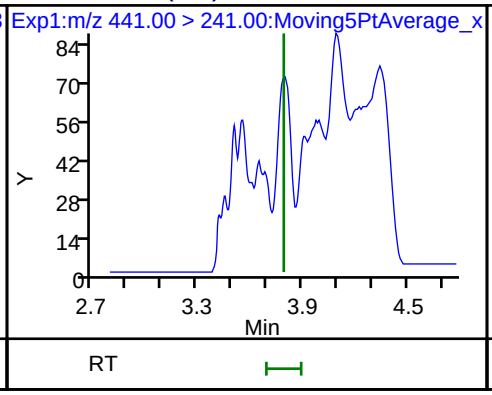
2 PPF Acid (ND)



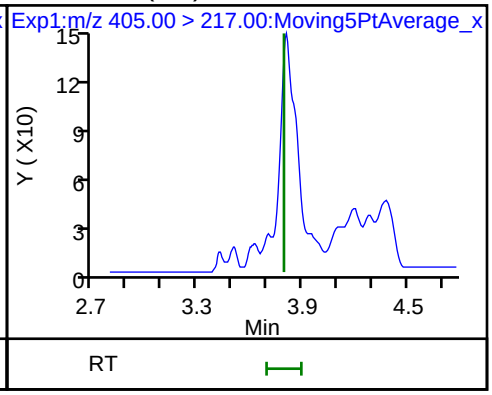
3 PFMOAA (ND)



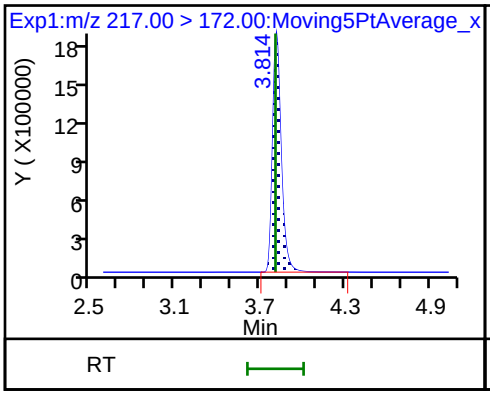
4 R-PSDA (ND)



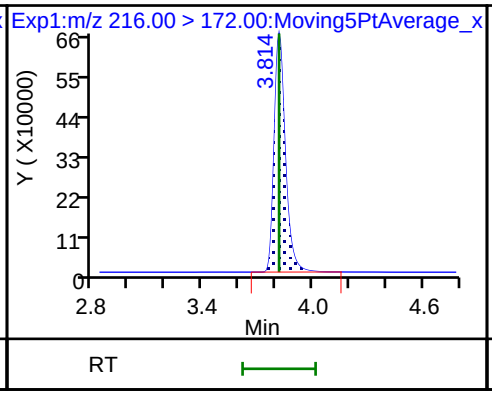
5 R-EVE (ND)



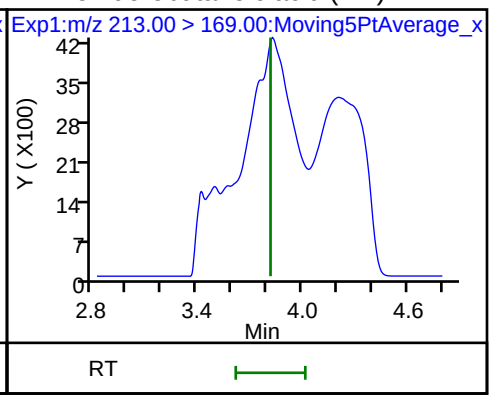
D 6 13C4 PFBA



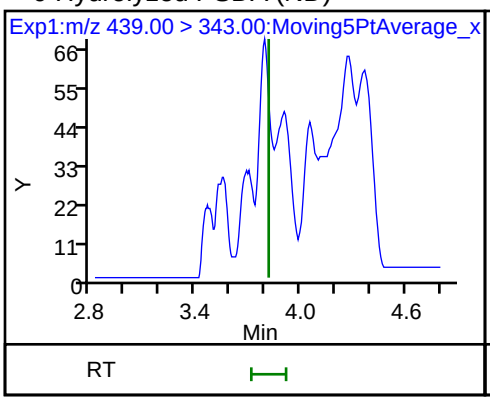
* 8 13C3-PFBA



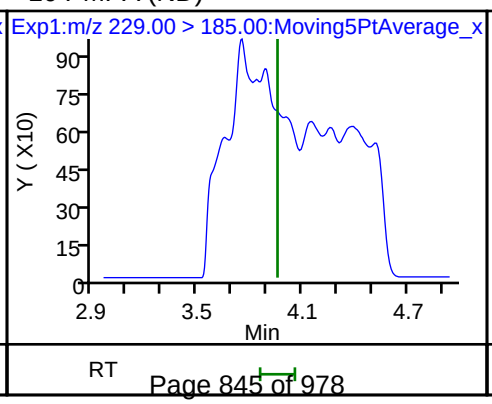
7 Perfluorobutanoic acid (ND)



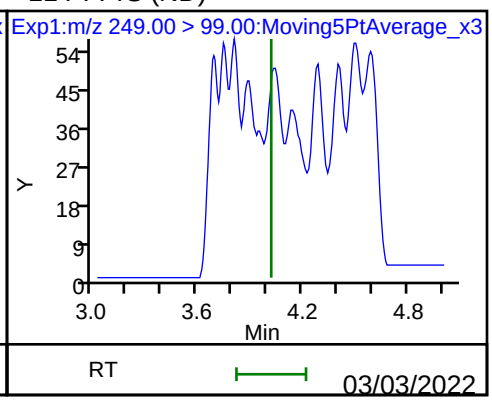
9 Hydrolyzed PSDA (ND)



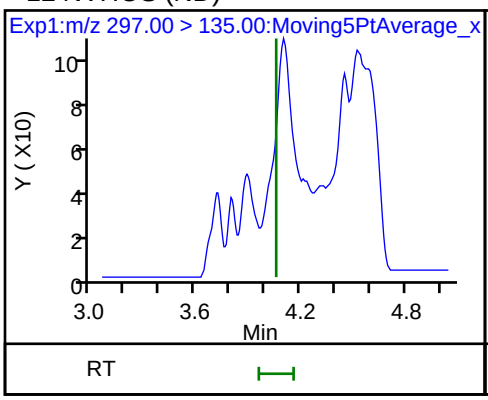
10 PMPA (ND)



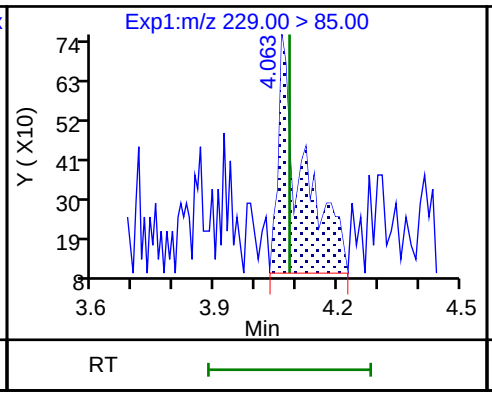
11 PFPrS (ND)



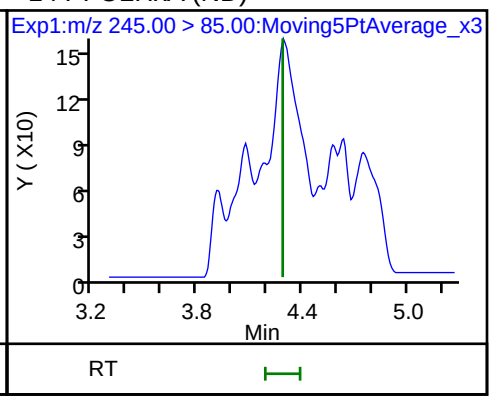
12 NVHOS (ND)



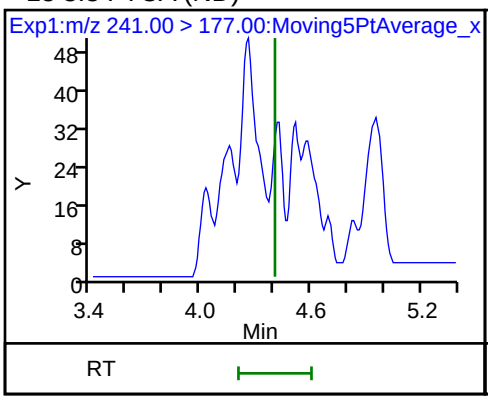
13 PFECA F



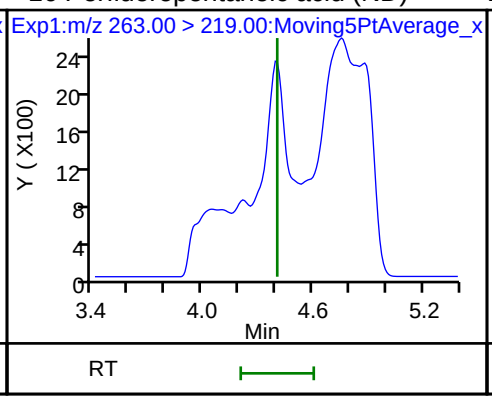
14 PFO2HxA (ND)



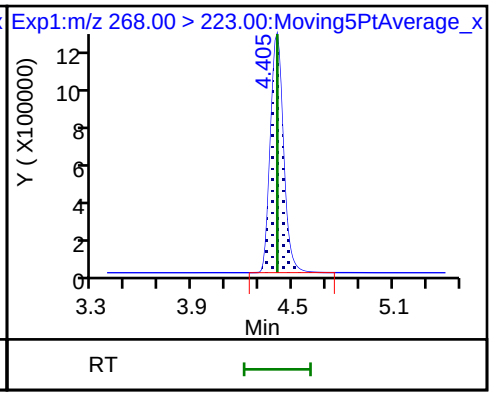
15 3:3 FTCA (ND)



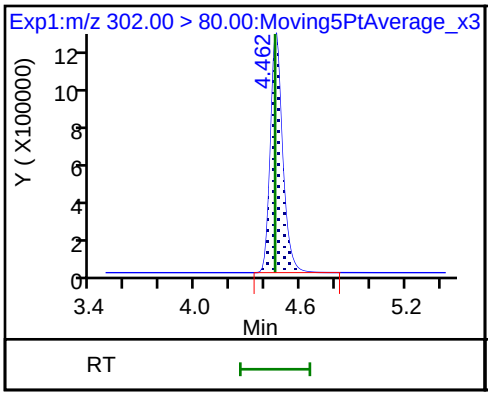
16 Perfluoropentanoic acid (ND)



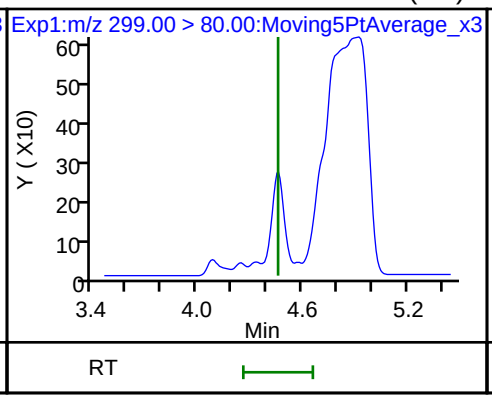
D 17 13C5 PFPeA



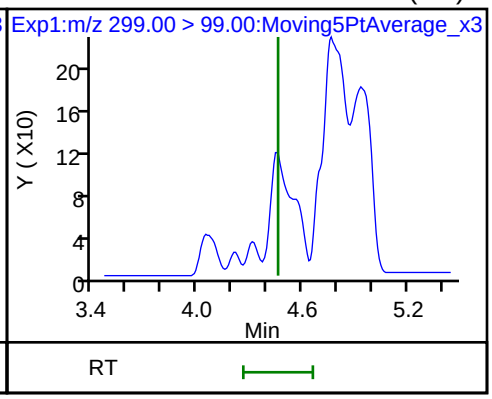
D 19 13C3 PFBS



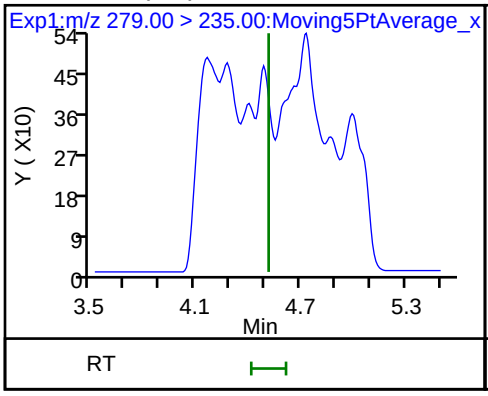
18 Perfluorobutanesulfonic acid (ND)



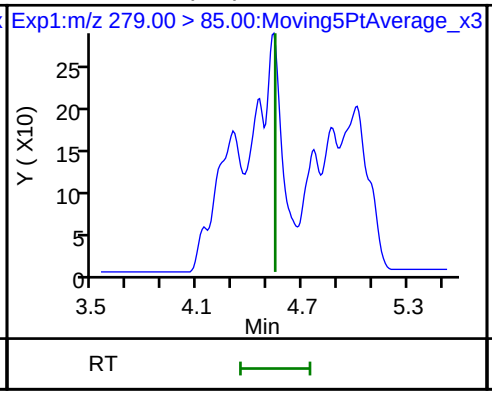
18 Perfluorobutanesulfonic acid (ND)



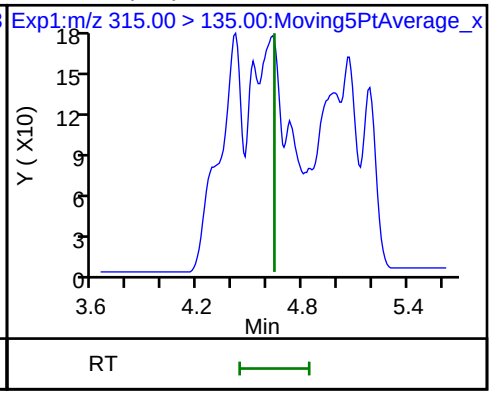
20 PEPA (ND)



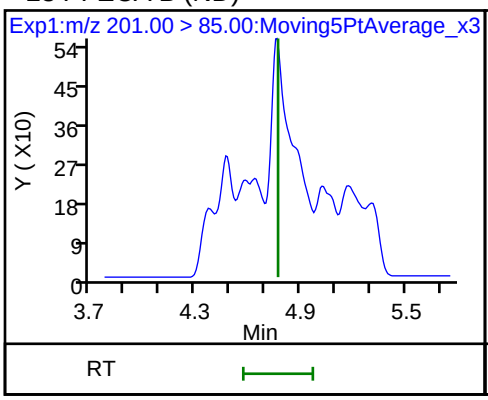
21 PFECA A (ND)



22 PES (ND)



23 PFECA B (ND)



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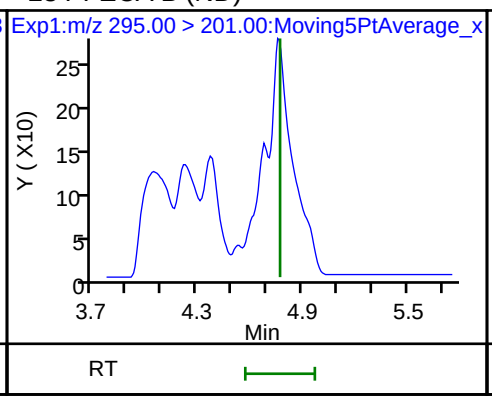
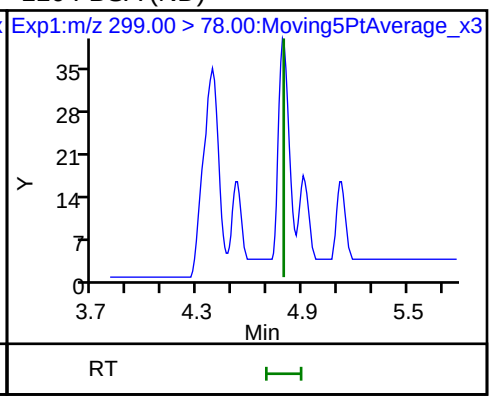
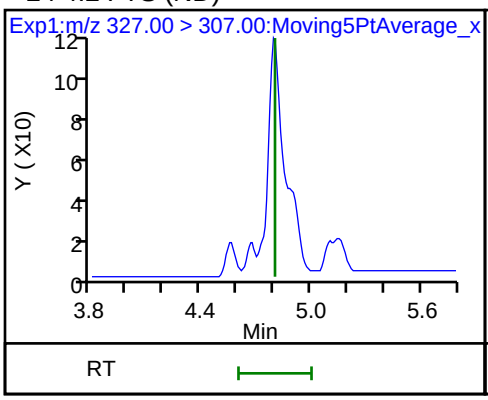


110 FBSA (ND)



24 4:2 FTS (ND)



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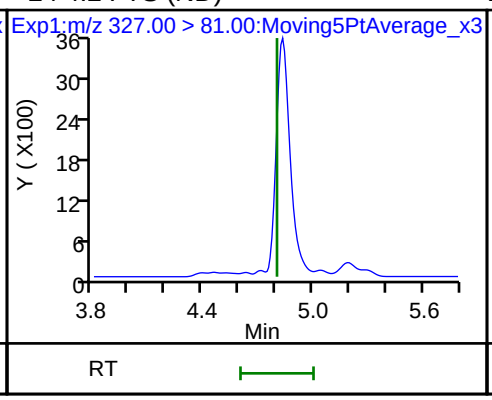
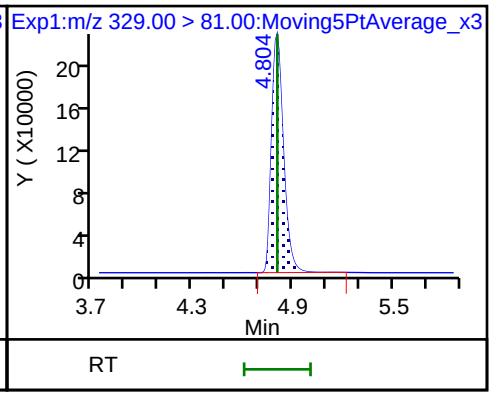
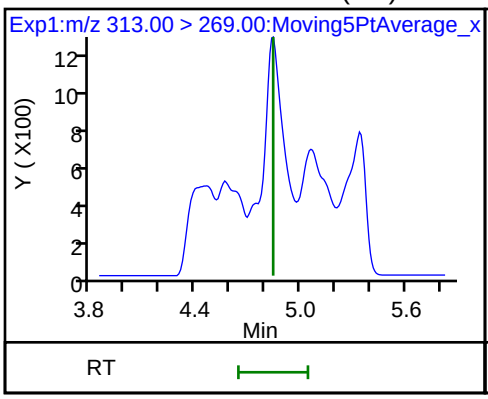


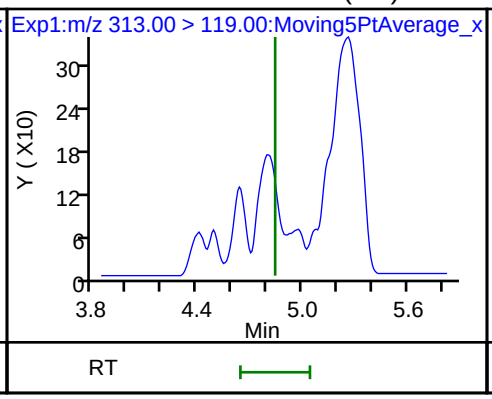
D 25 M2-4:2 FTS



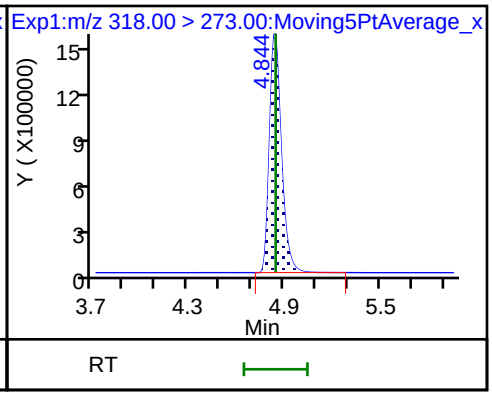
26 Perfluorohexanoic acid (ND)



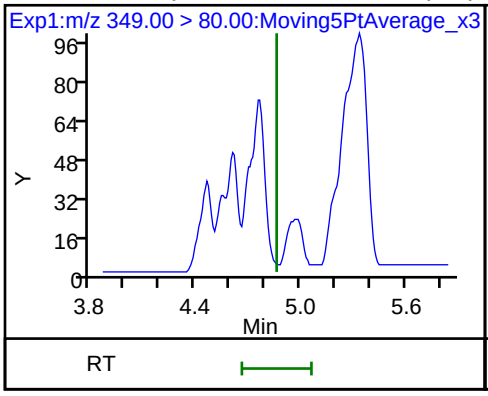
26 Perfluorohexanoic acid (ND)



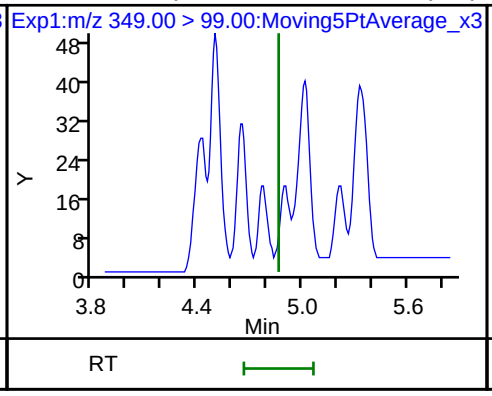
D 27 13C5 PFHxA



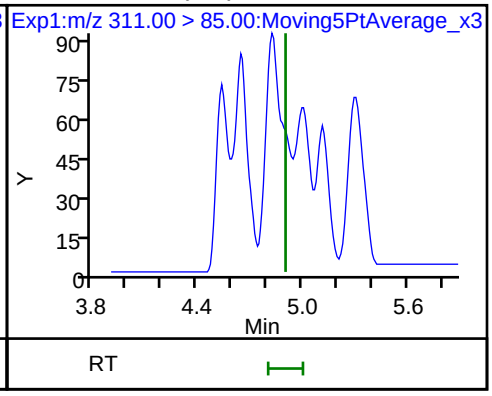
28 Perfluoropentanesulfonic acid (ND)



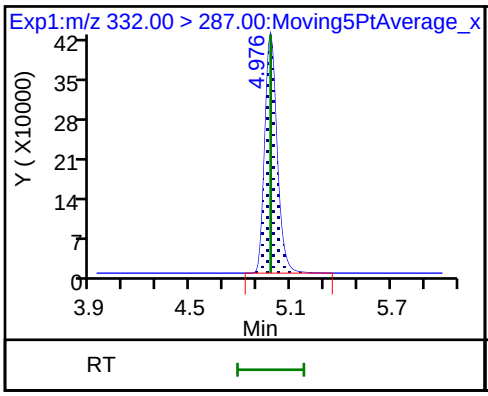
28 Perfluoropentanesulfonic acid (ND)



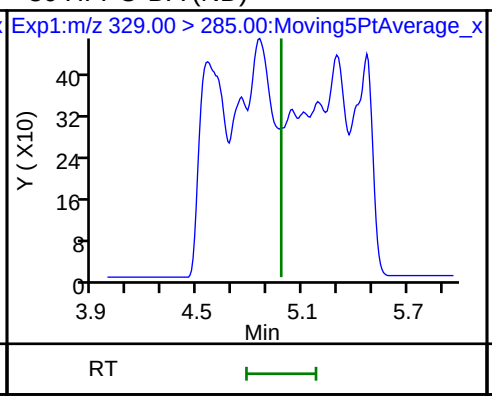
29 PFO3OA (ND)



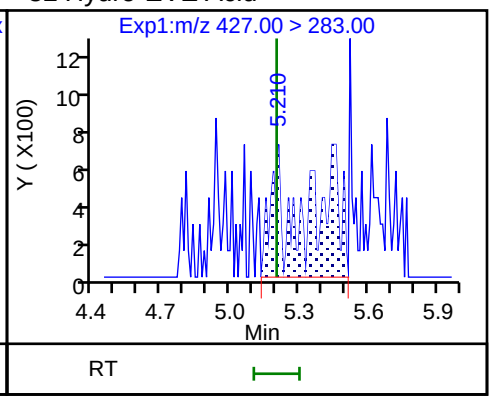
D 31 13C3 HFPO-DA



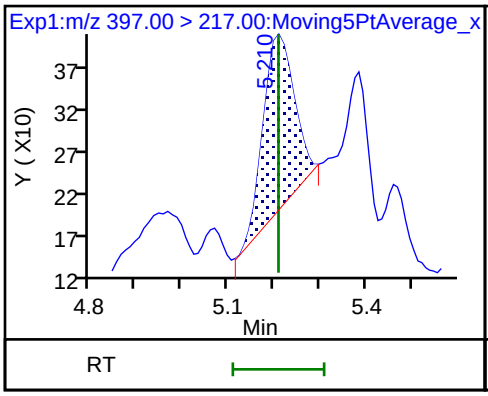
30 HFPO-DA (ND)



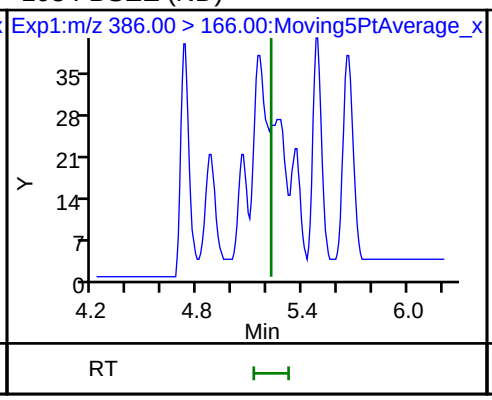
32 Hydro-EVE Acid



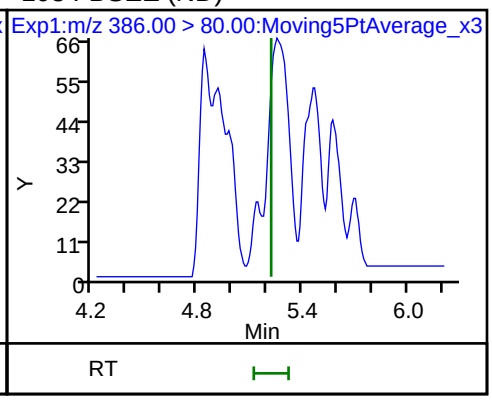
33 R-PSDCA



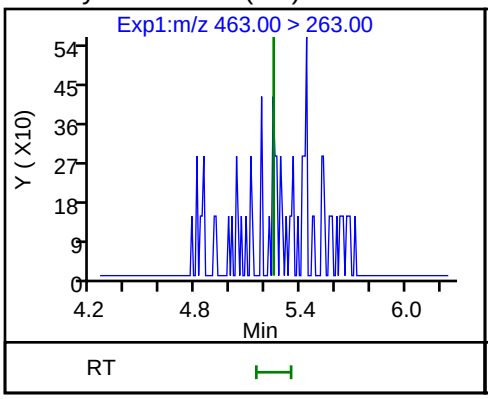
108 FBSEE (ND)



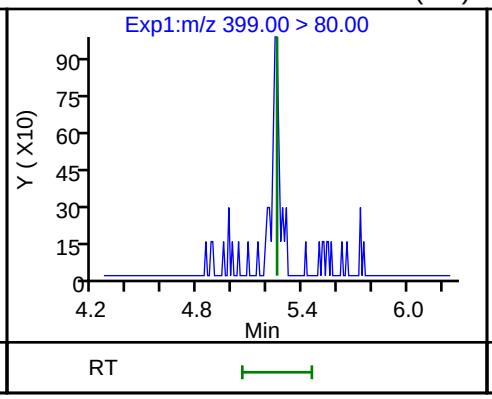
108 FBSEE (ND)



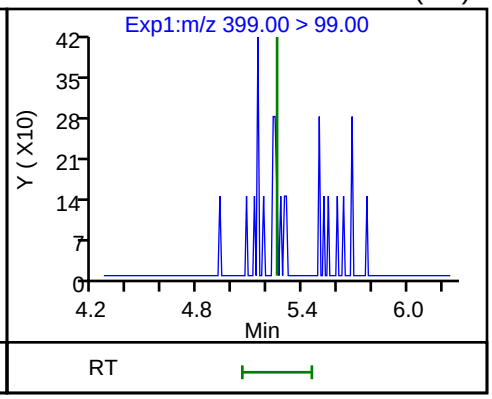
34 Hydro-PS Acid (ND)



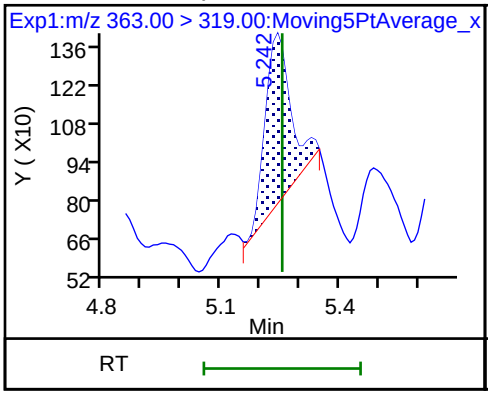
35 Perfluorohexanesulfonic acid (ND)



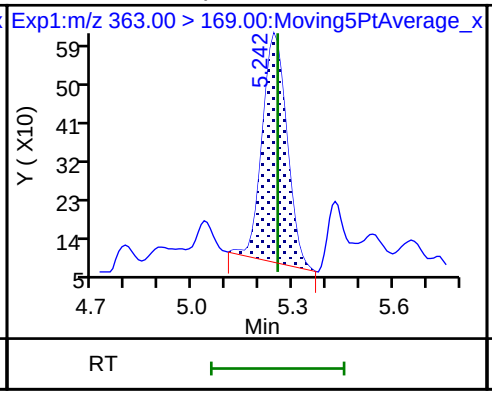
35 Perfluorohexanesulfonic acid (ND)



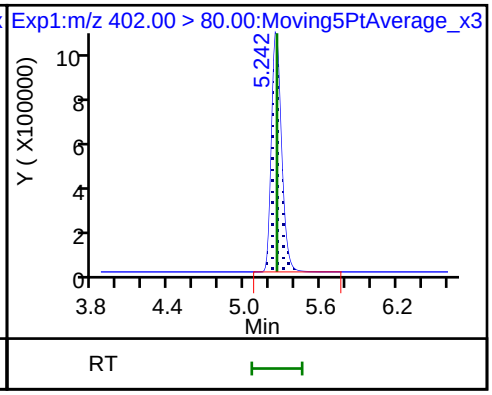
36 Perfluoroheptanoic acid



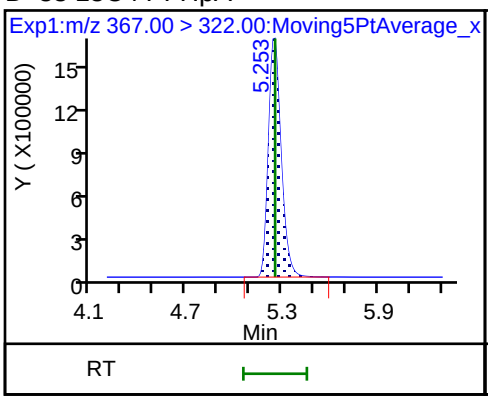
36 Perfluoroheptanoic acid



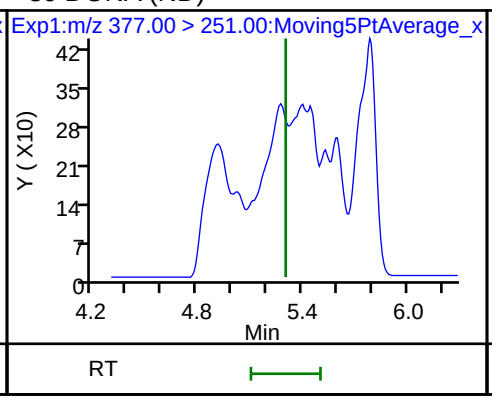
D 37 13C3 PFHxS



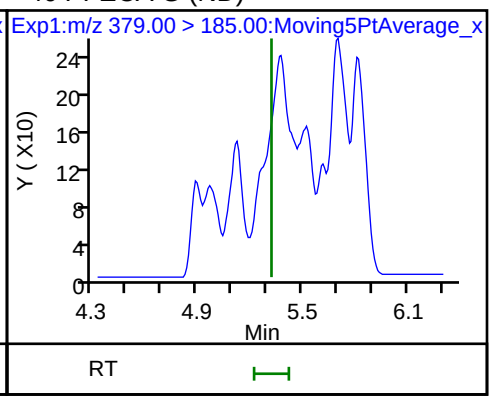
D 38 13C4 PFHpA



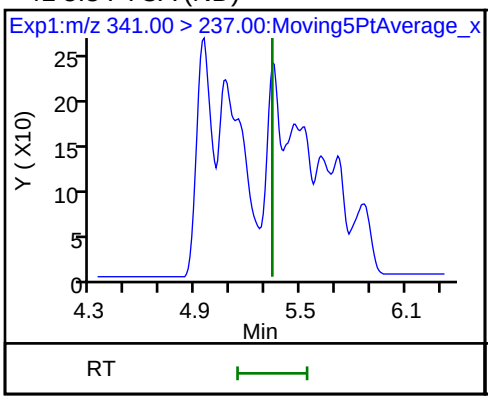
39 DONA (ND)



40 PFECA G (ND)



41 5:3 FTCA (ND)



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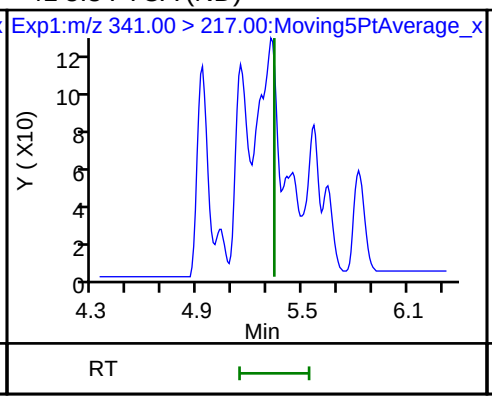
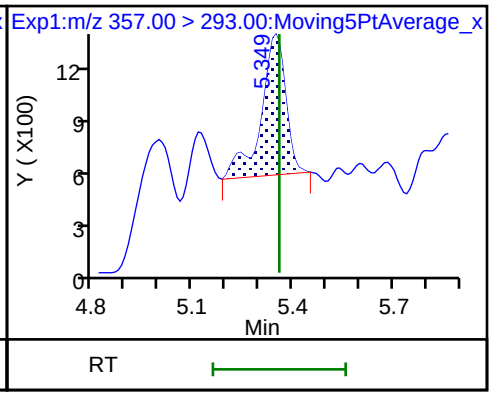
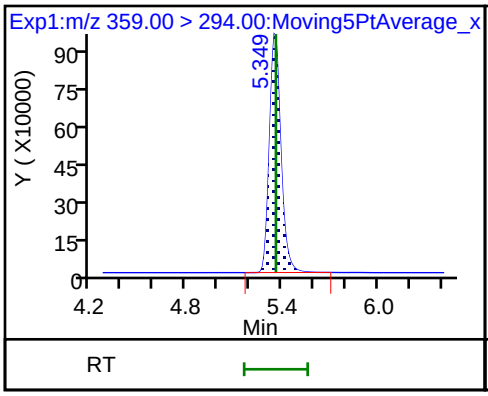


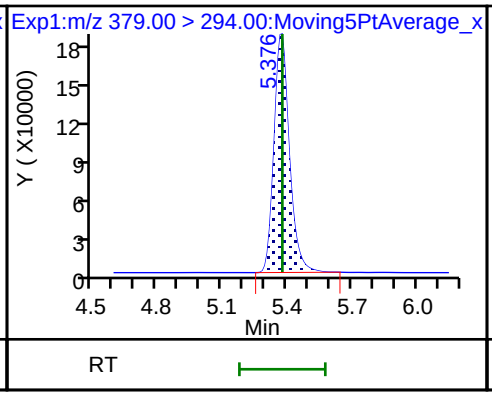
42 6:2 FTUCA



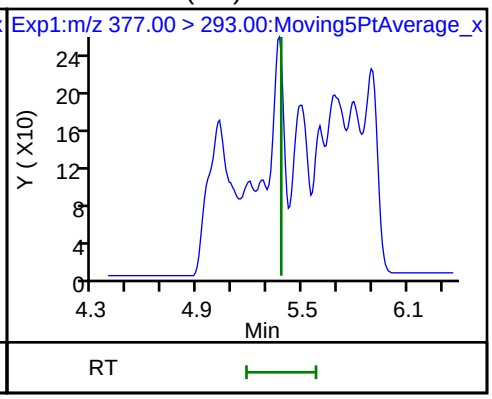
D 43 13C-6:2 FTUCA



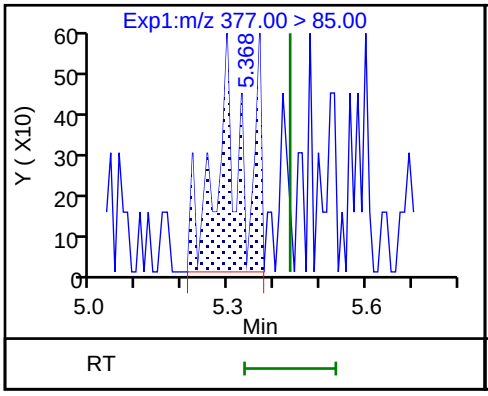
D 45 13C-6:2 FTCA



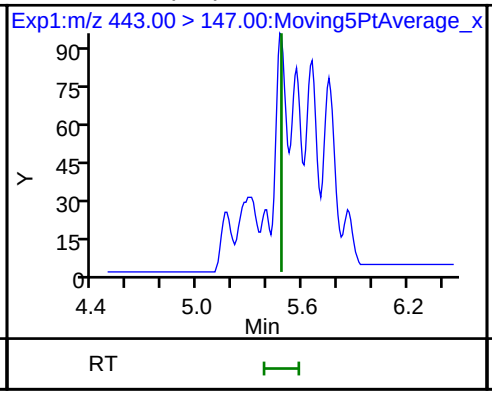
44 6:2 FTCA (ND)



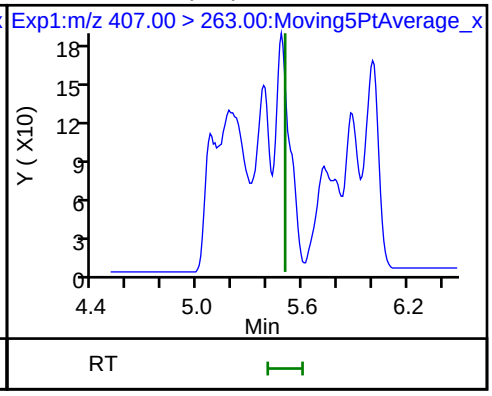
46 PFO4DA



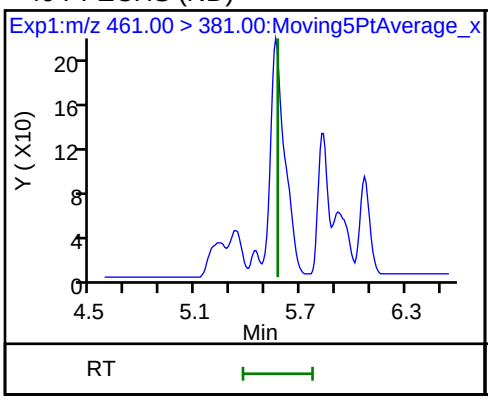
47 PS Acid (ND)



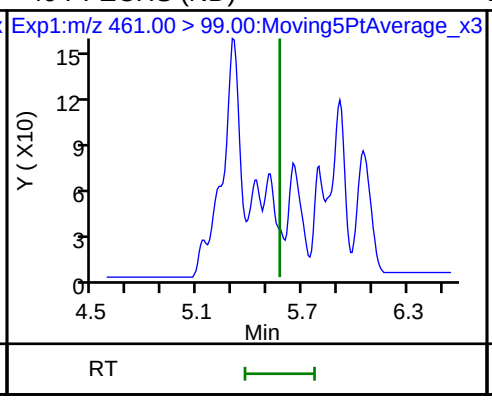
48 EVE Acid (ND)



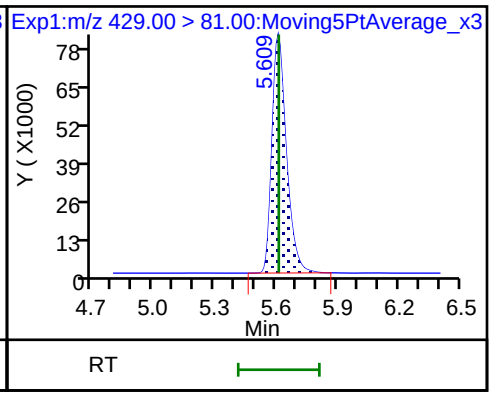
49 PFECHS (ND)



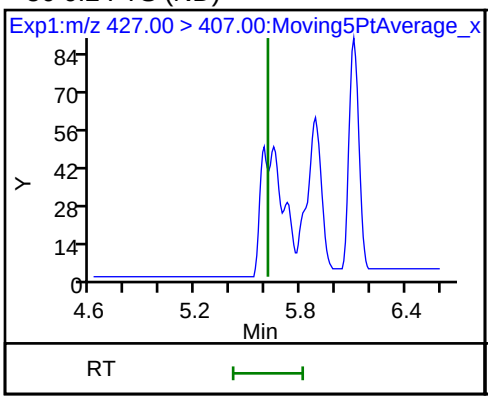
49 PFECHS (ND)



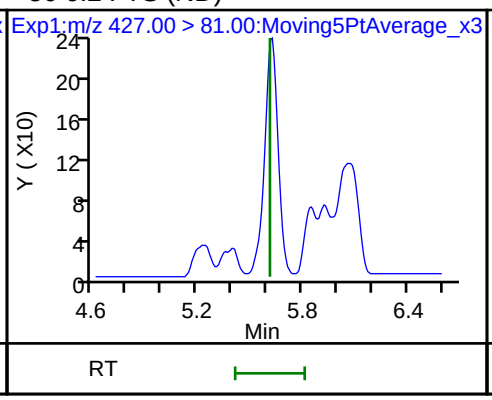
D 52 M2-6:2 FTS



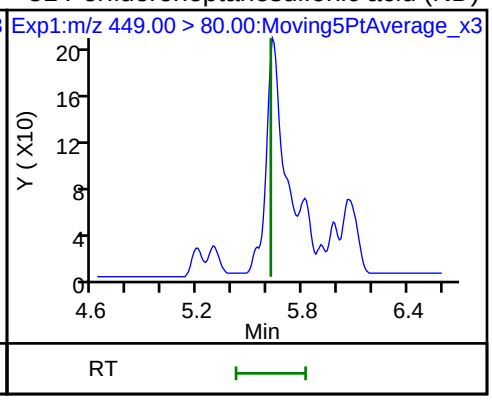
50 6:2 FTS (ND)



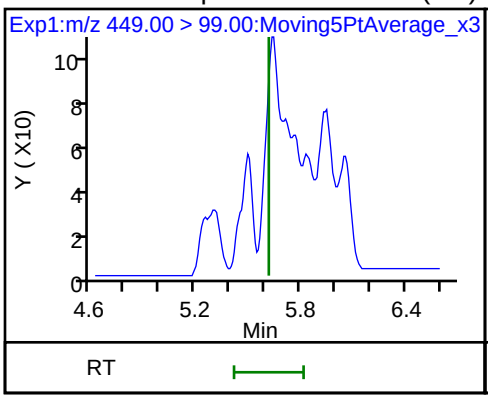
50 6:2 FTS (ND)



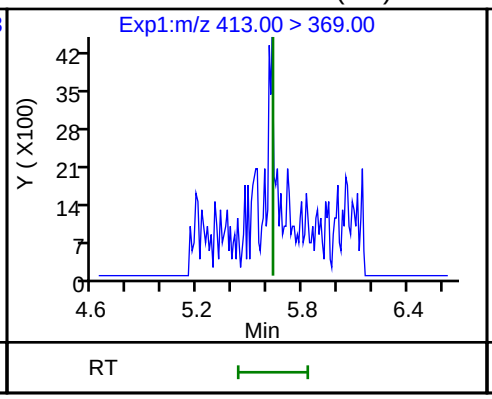
51 Perfluoroheptanesulfonic acid (ND)



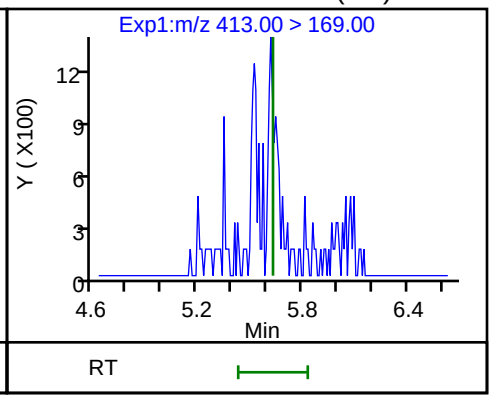
51 Perfluoroheptanesulfonic acid (ND)



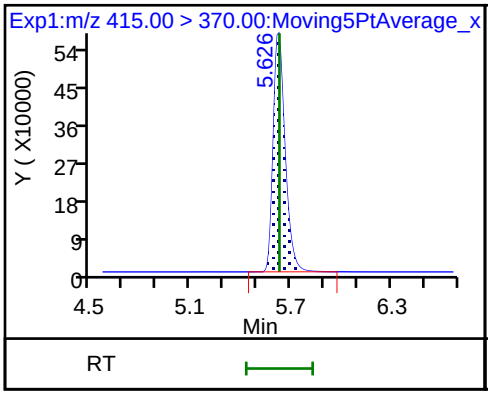
53 Perfluorooctanoic acid (ND)



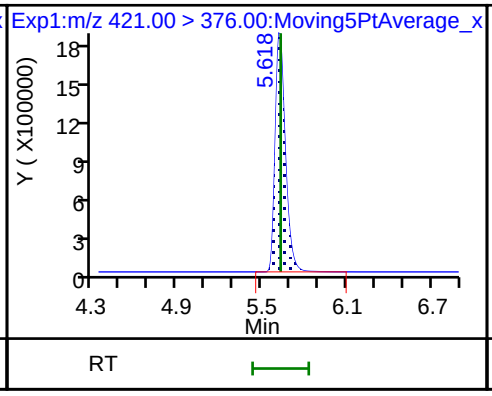
53 Perfluorooctanoic acid (ND)



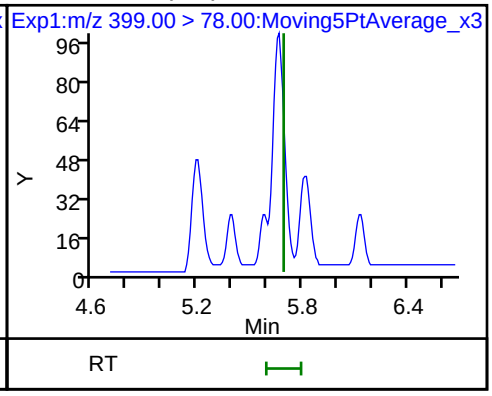
* 55 13C2 PFOA



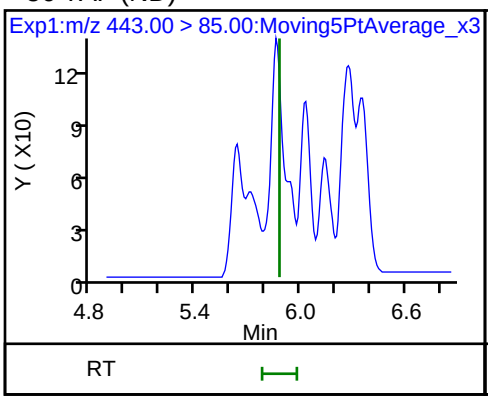
D 54 13C8 PFOA



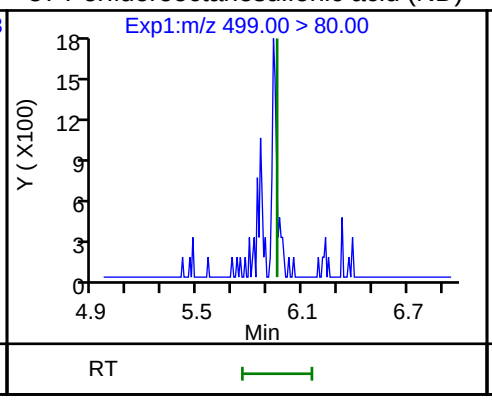
106 FHxSA (ND)



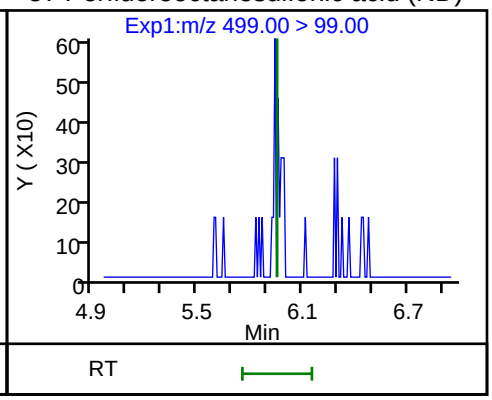
56 TAF (ND)



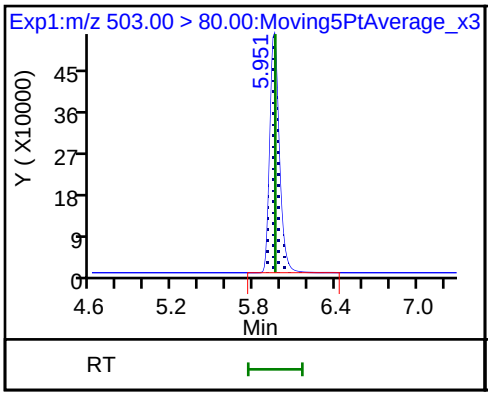
57 Perfluorooctanesulfonic acid (ND)



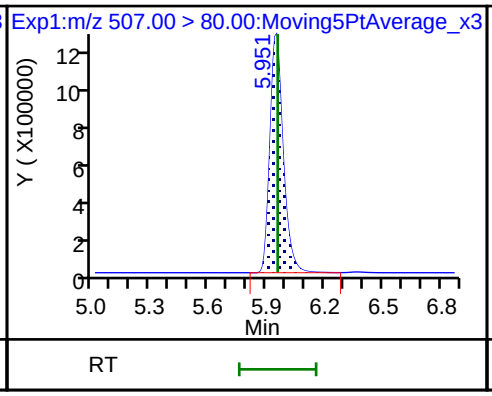
57 Perfluorooctanesulfonic acid (ND)



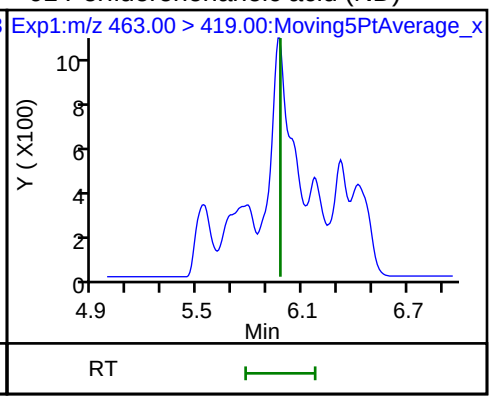
* 59 13C4 PFOS



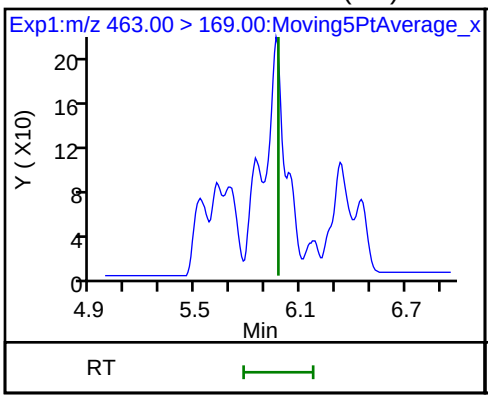
D 58 13C8 PFOS



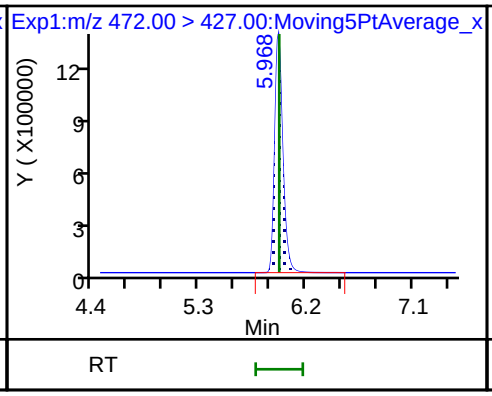
61 Perfluorononanoic acid (ND)



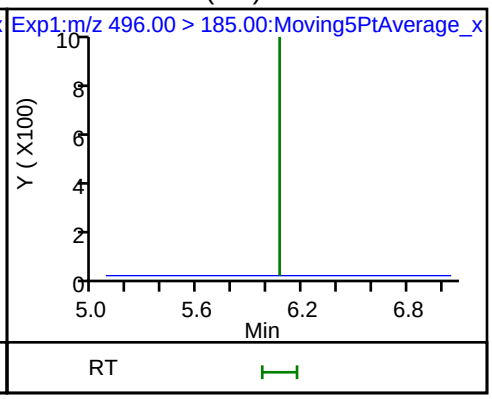
61 Perfluorononanoic acid (ND)



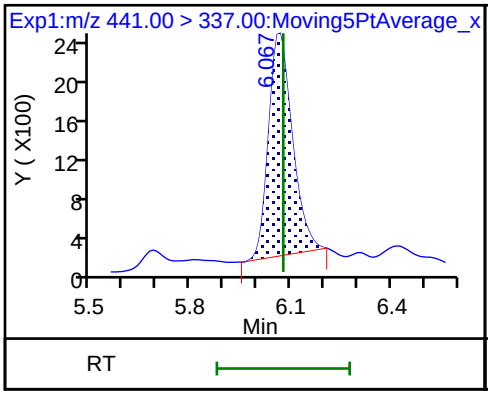
D 60 13C9 PFNA



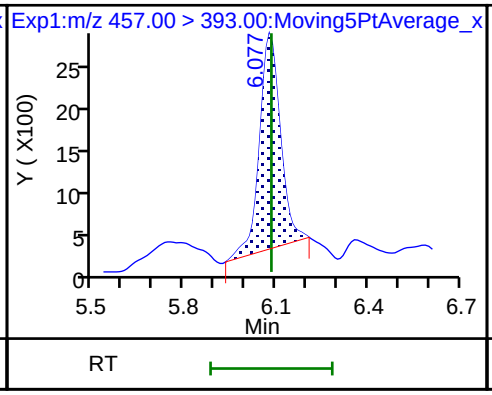
109 HFPO-TrA (ND)



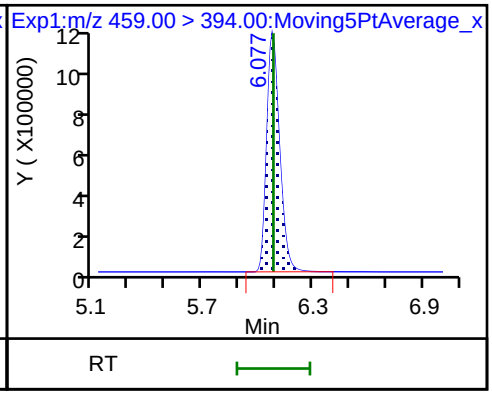
62 7:3 FTCA



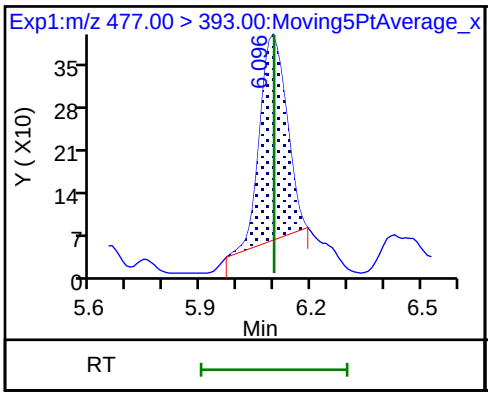
63 8:2 FTUCA



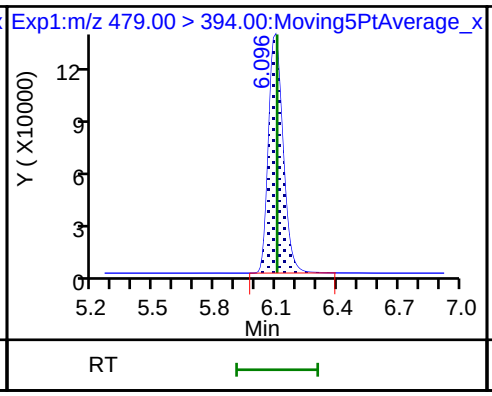
D 64 13C-8:2 FTUCA



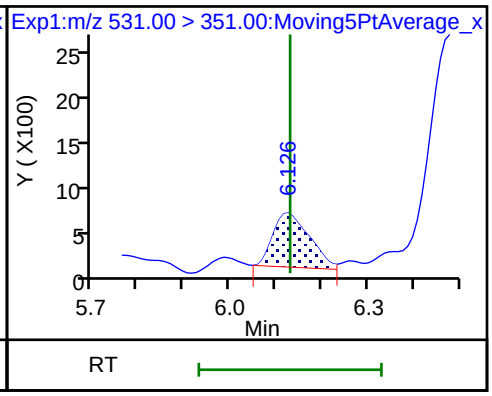
65 8:2 FTCA



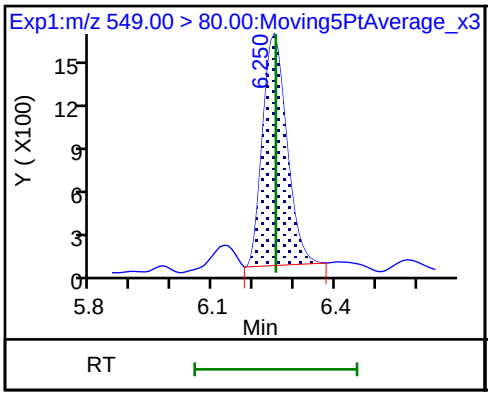
D 66 13C-8:2 FTCA



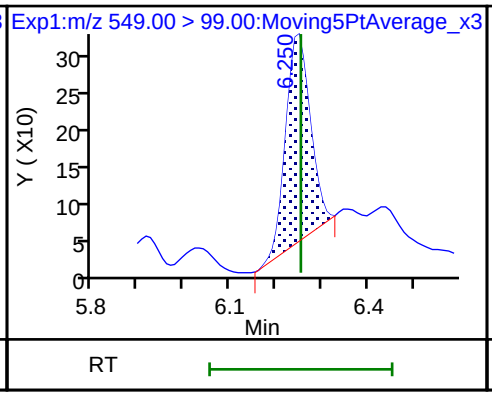
67 9ClFOS



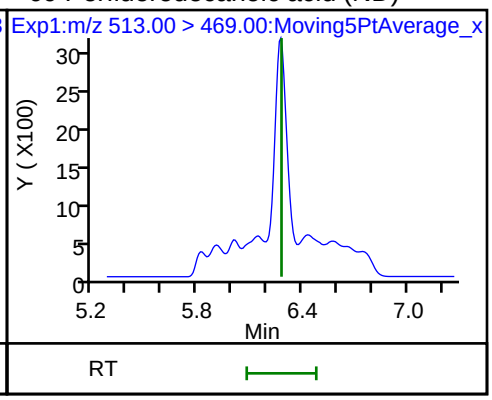
68 Perfluorononanesulfonic acid



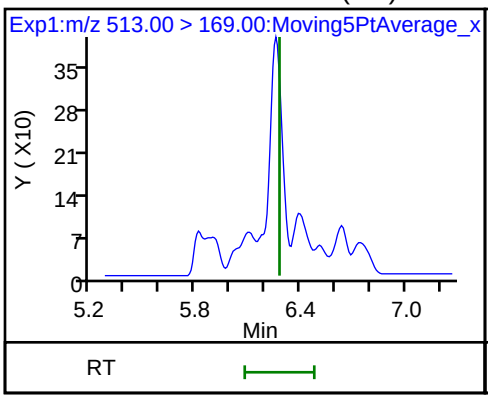
68 Perfluorononanesulfonic acid



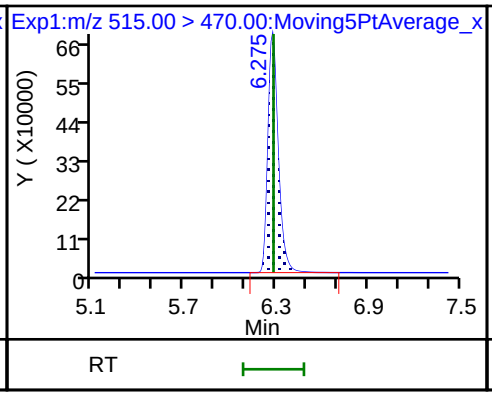
69 Perfluorodecanoic acid (ND)



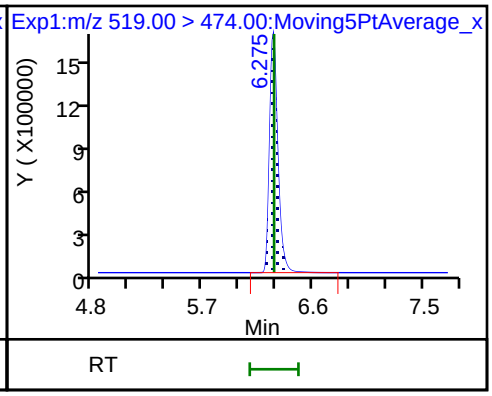
69 Perfluorodecanoic acid (ND)



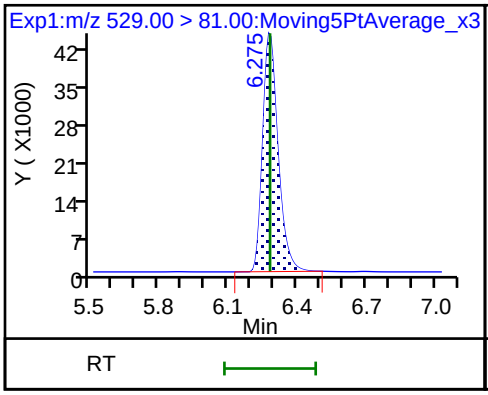
* 70 13C2 PFDA



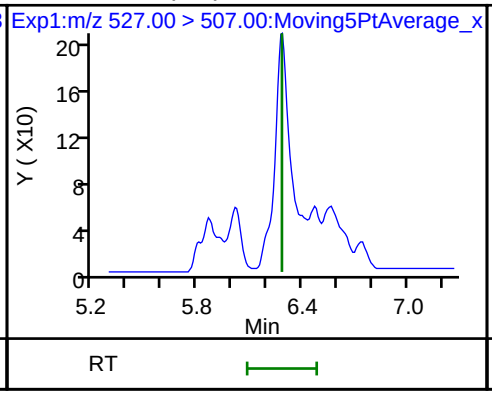
D 71 13C6 PFDA



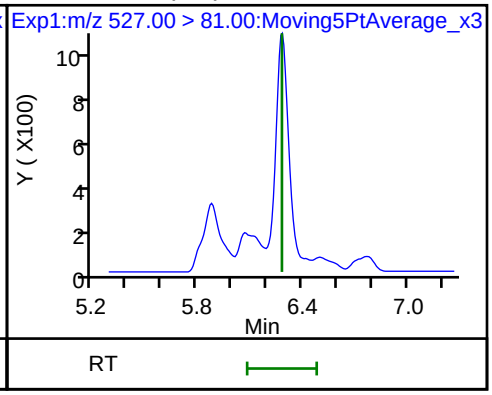
D 73 M2-8:2 FTS



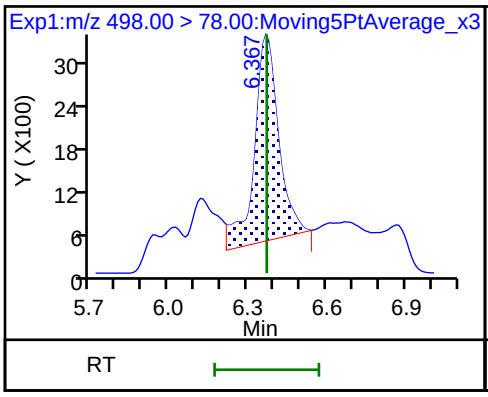
72 8:2 FTS (ND)



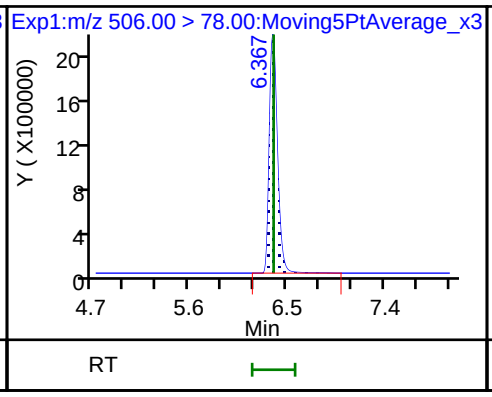
72 8:2 FTS (ND)



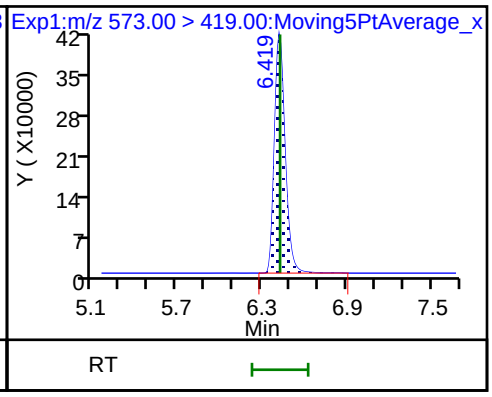
75 Perfluorooctanesulfonamide



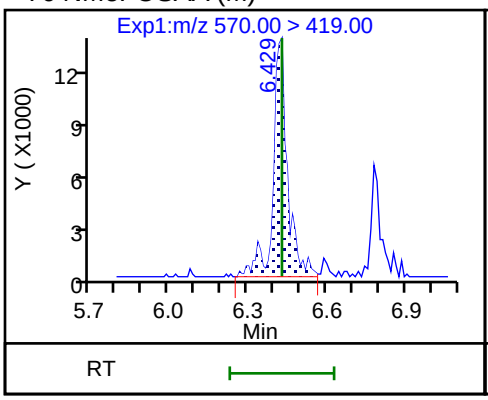
D 74 13C8 FOSA



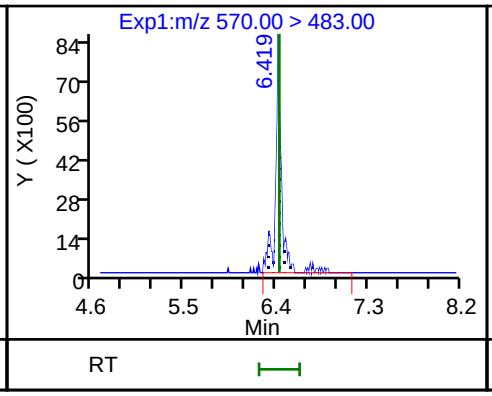
D 77 d3-NMeFOSAA



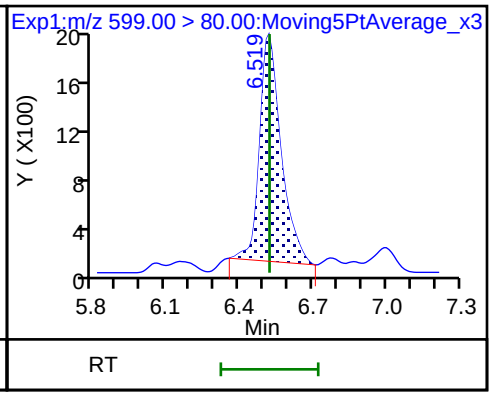
76 NMeFOSAA (M)



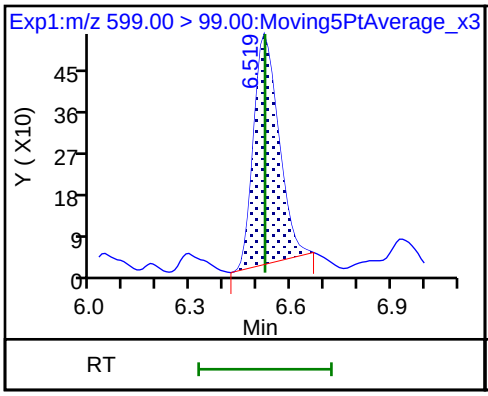
76 NMeFOSAA



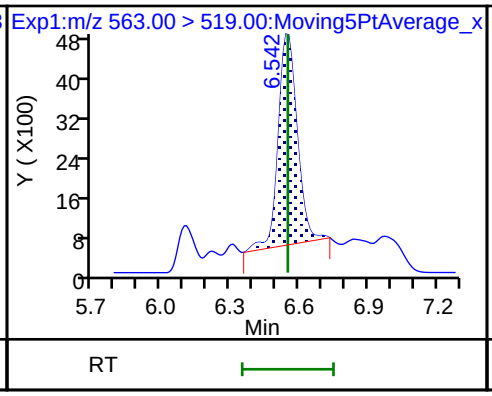
78 Perfluorodecanesulfonic acid



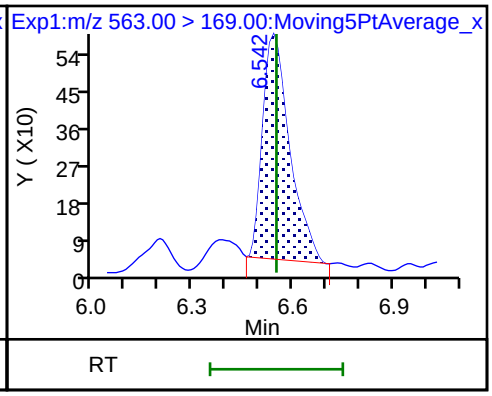
78 Perfluorodecanesulfonic acid



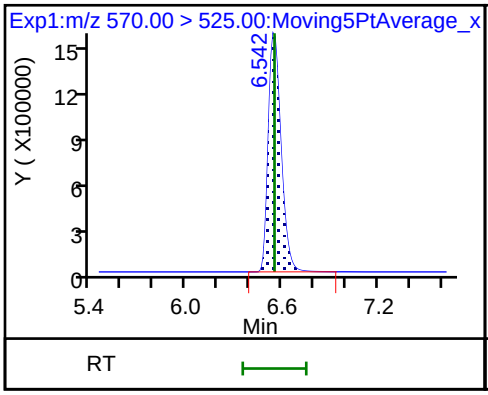
79 Perfluoroundecanoic acid



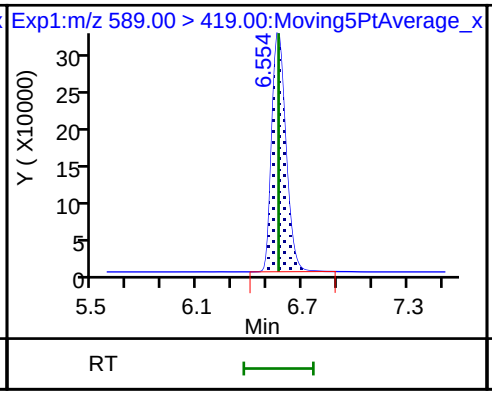
79 Perfluoroundecanoic acid



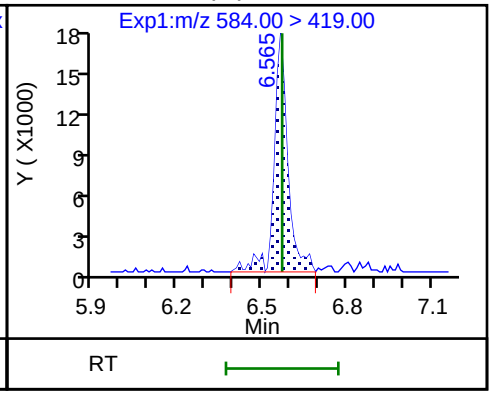
D 80 13C7 PFUnA



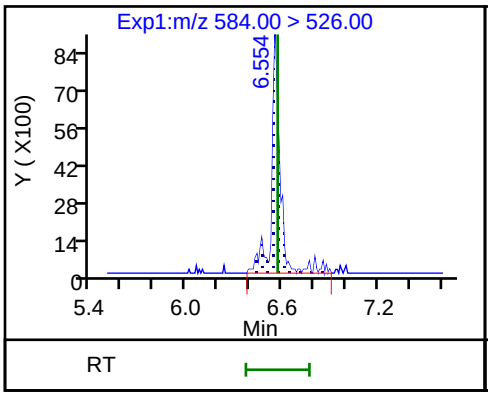
D 81 d5-NEtFOSAA



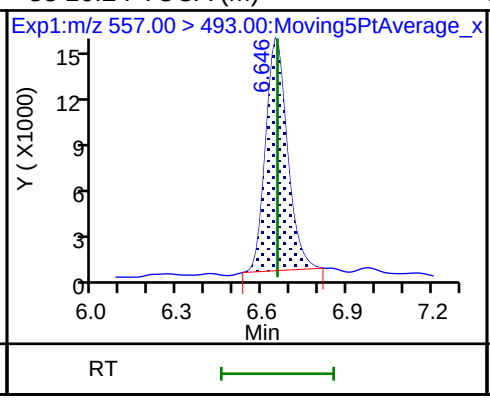
82 NEtFOSAA (M)



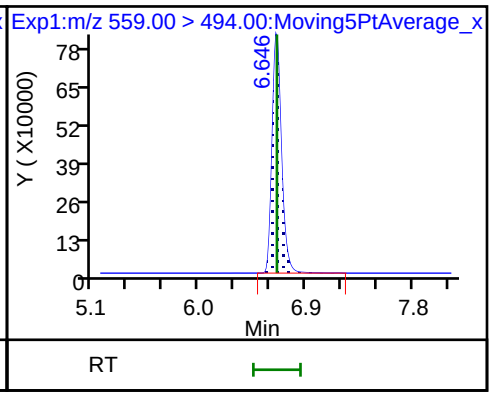
82 NEtFOSAA



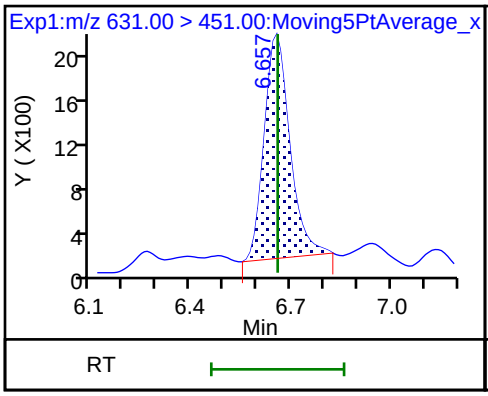
83 10:2 FTUCA (M)



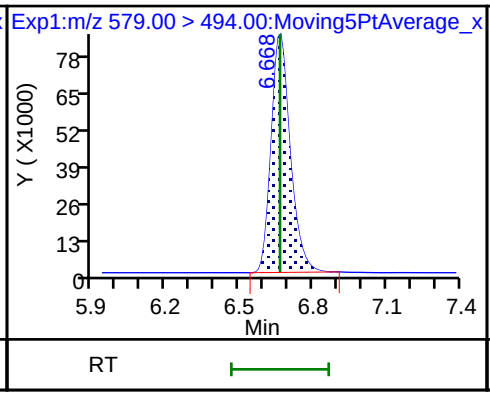
D 85 13C-10:2 FTUCA



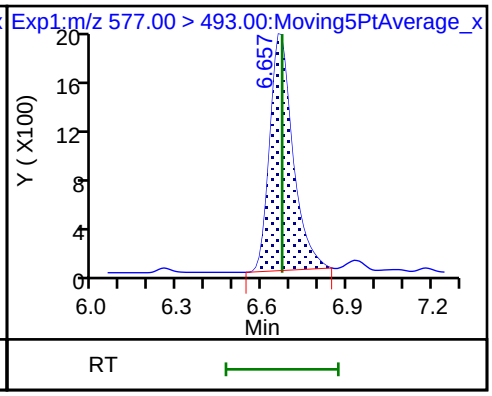
84 11ClFOS



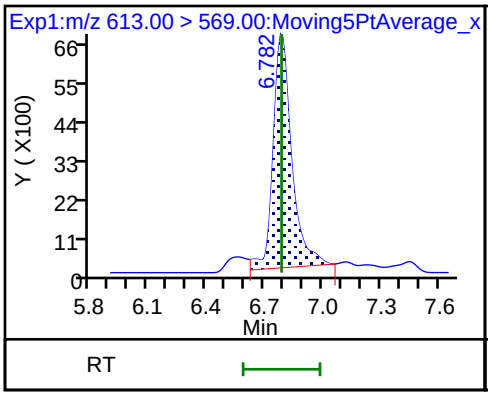
D 87 13C-10:2 FTCA



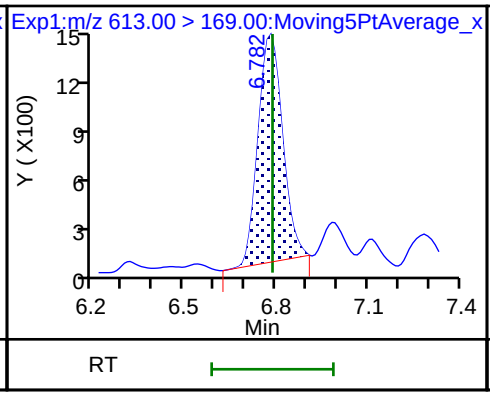
86 10:2 FTCA



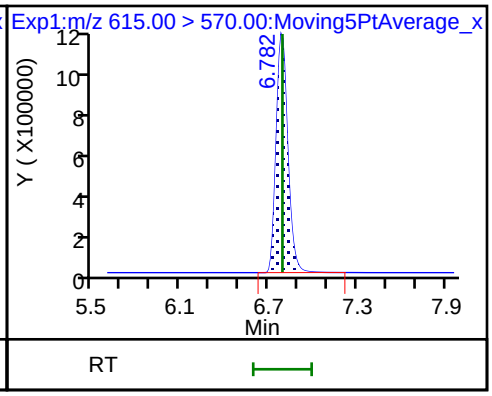
88 Perfluorododecanoic acid



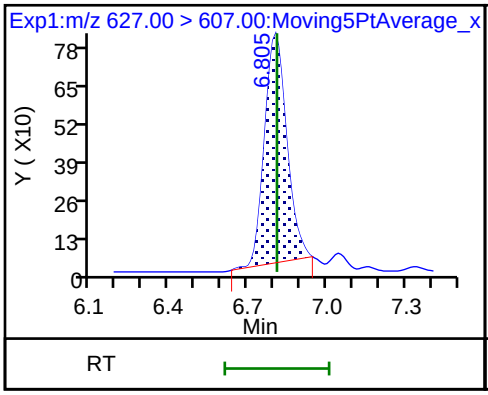
88 Perfluorododecanoic acid



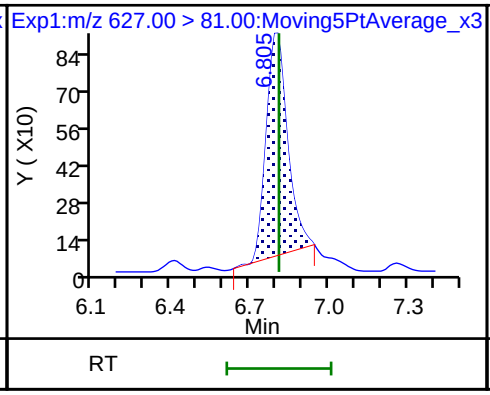
D 89 13C2-PFDoDA



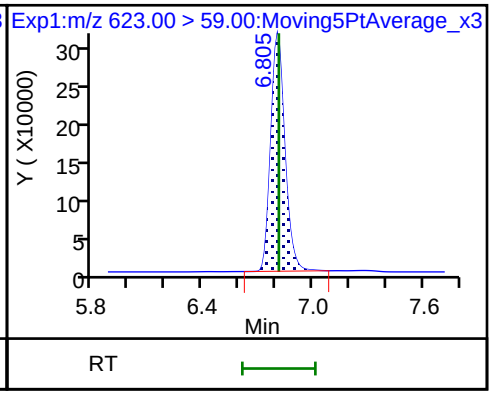
90 10:2 FTS



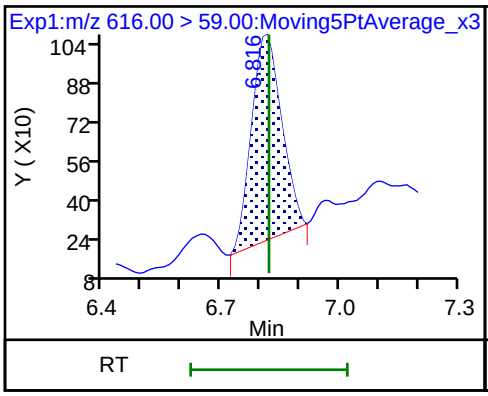
90 10:2 FTS



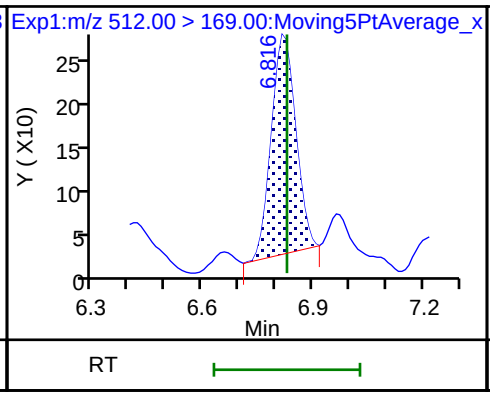
D 91 d7-N-MeFOSE-M



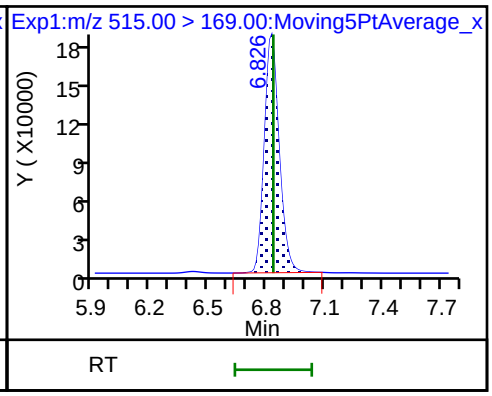
92 N-MeFOSE-M



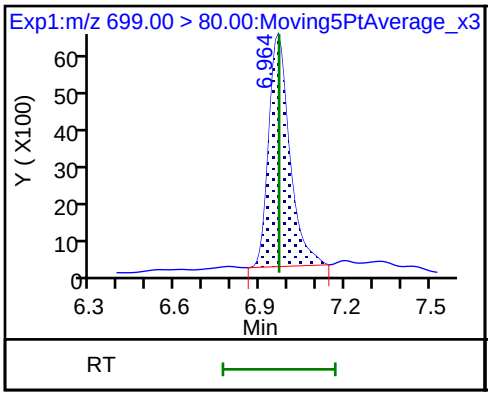
94 NMeFOSA



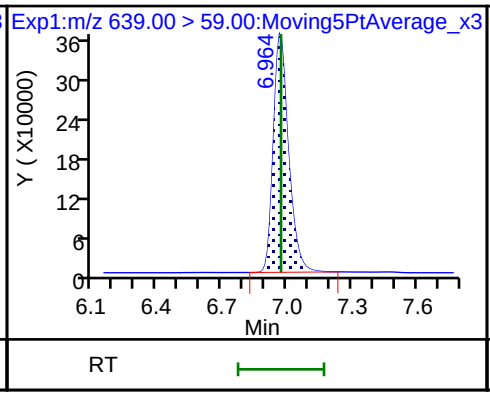
D 93 d3-NMePFOSA



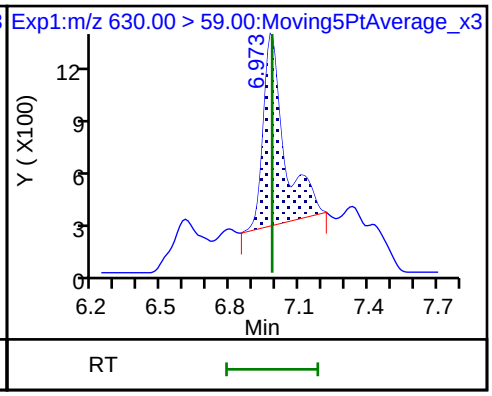
95 PFDoS



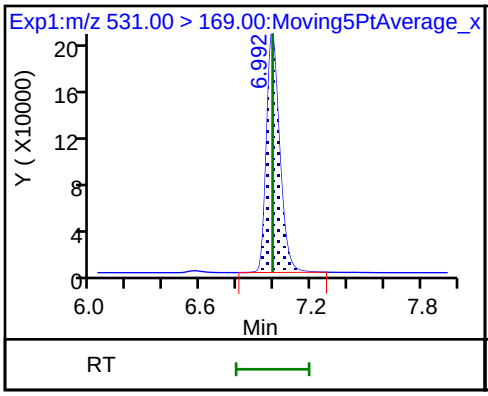
D 96 d9-N-EtFOSE-M



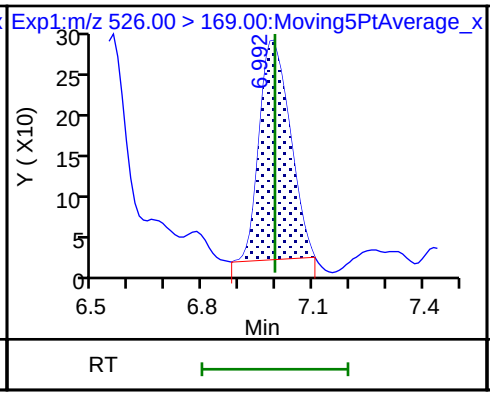
97 N-EtFOSE-M



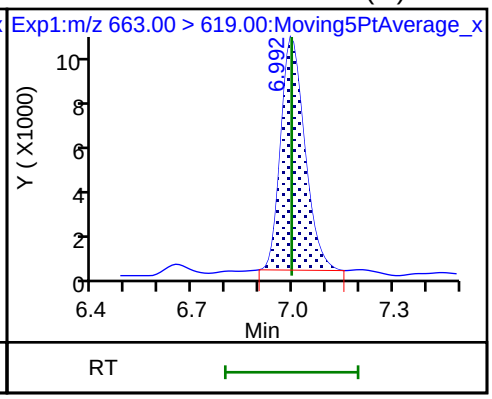
D 98 d5-NEtPFOSA



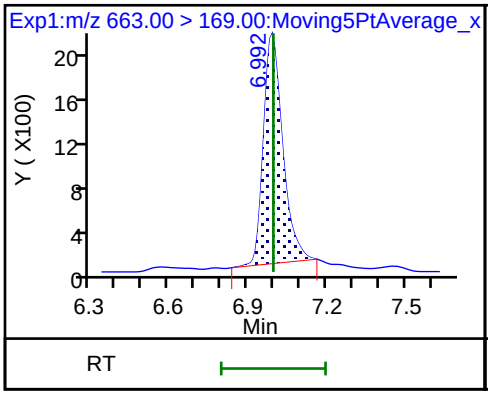
100 N-EtFOSA-M



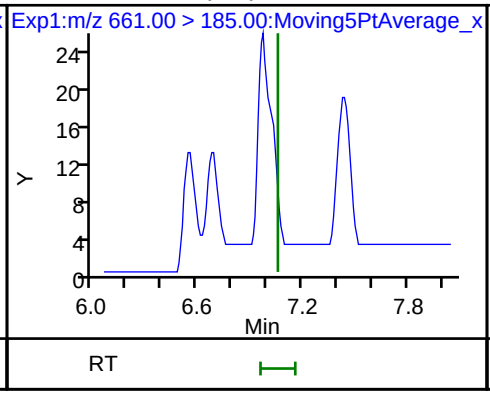
99 Perfluorotridecanoic acid (M)



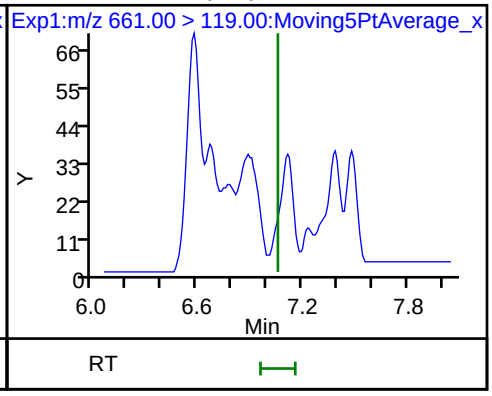
99 Perfluorotridecanoic acid



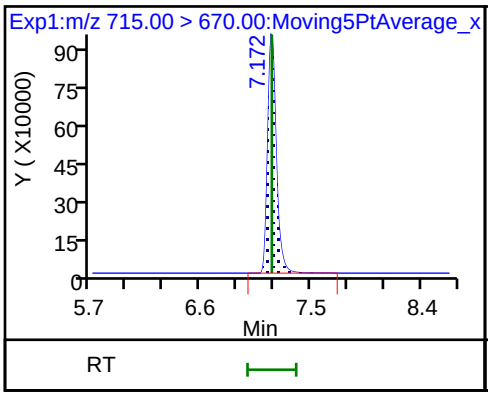
105 HFPOTeA (ND)



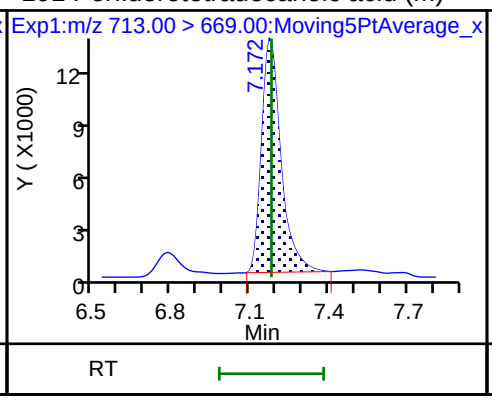
105 HFPOTeA (ND)



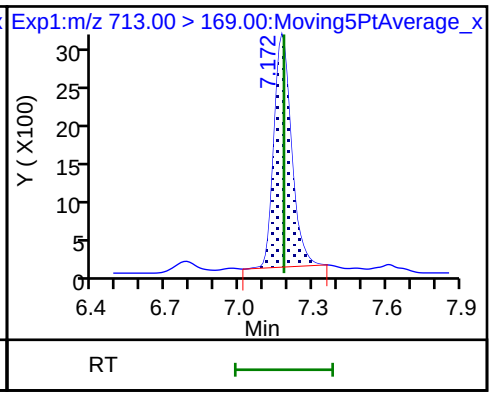
D 102 13C2 PFTeDA



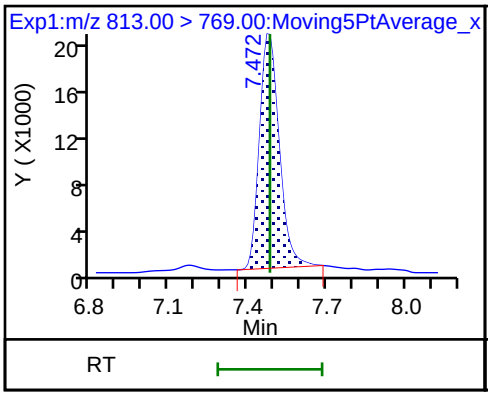
101 Perfluorotetradecanoic acid (M)



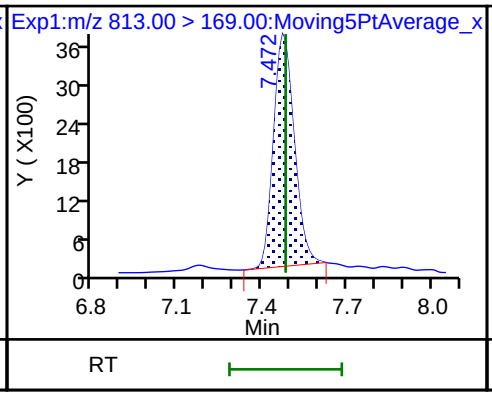
101 Perfluorotetradecanoic acid



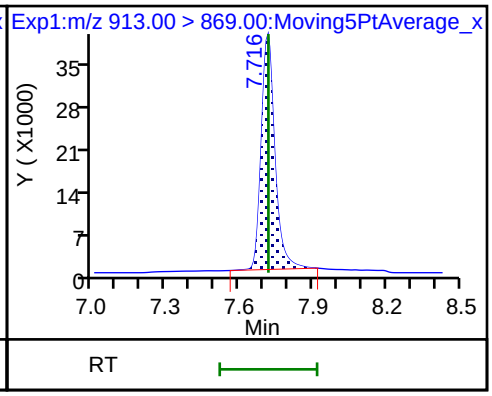
103 Perfluorohexadecanoic acid



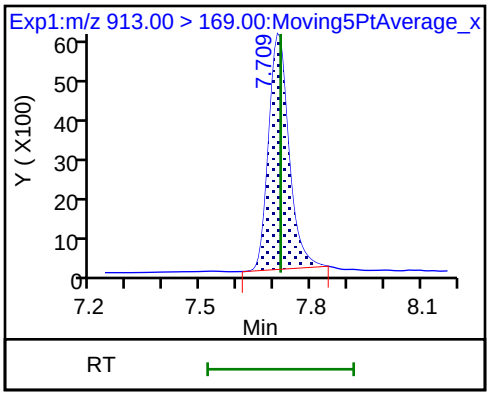
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

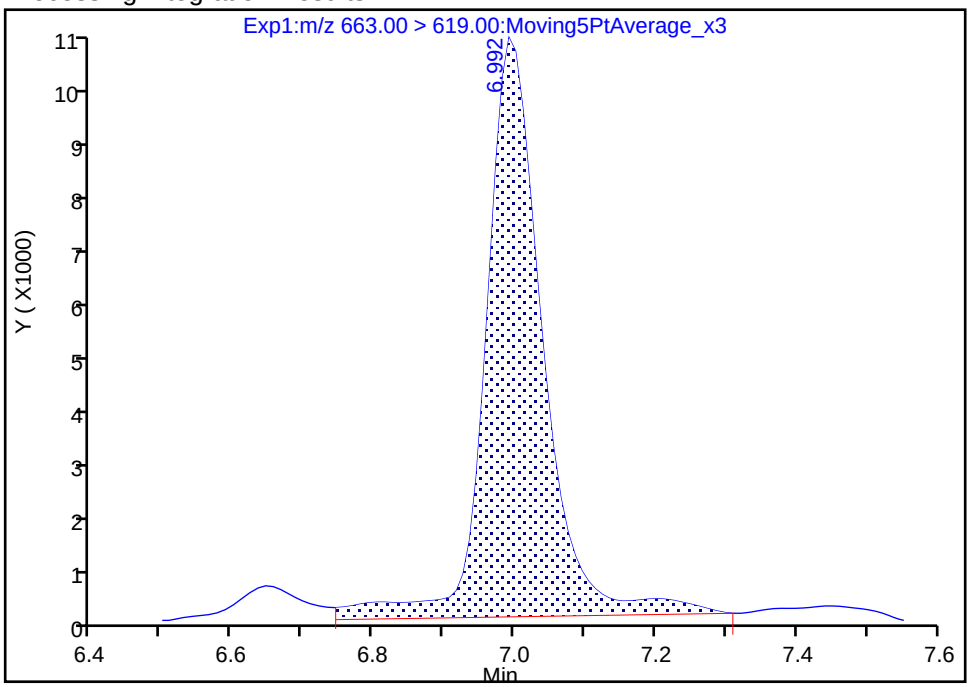
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-08.d				
Injection Date:	01-Mar-2022 22:32:59	Instrument ID:	30728		
Lims ID:	ICB				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20001	Worklist Smp#:	8
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

99 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

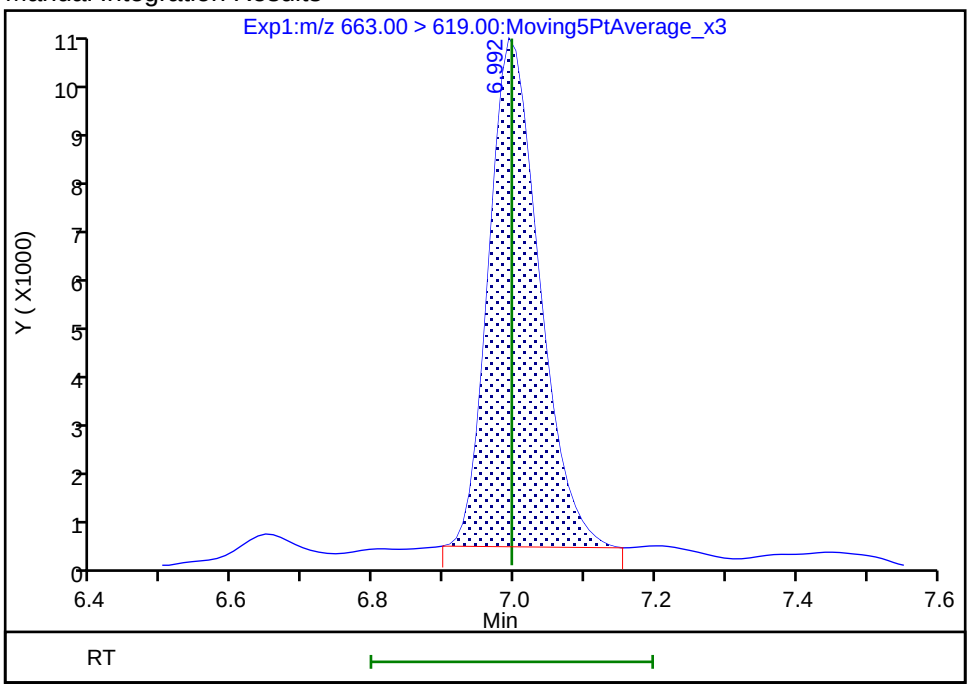
Processing Integration Results

RT: 6.99
Area: 60233
Amount: 0.124152
Amount Units: ng/ml



Manual Integration Results

RT: 6.99
Area: 51224
Amount: 0.105582
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:28:15

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

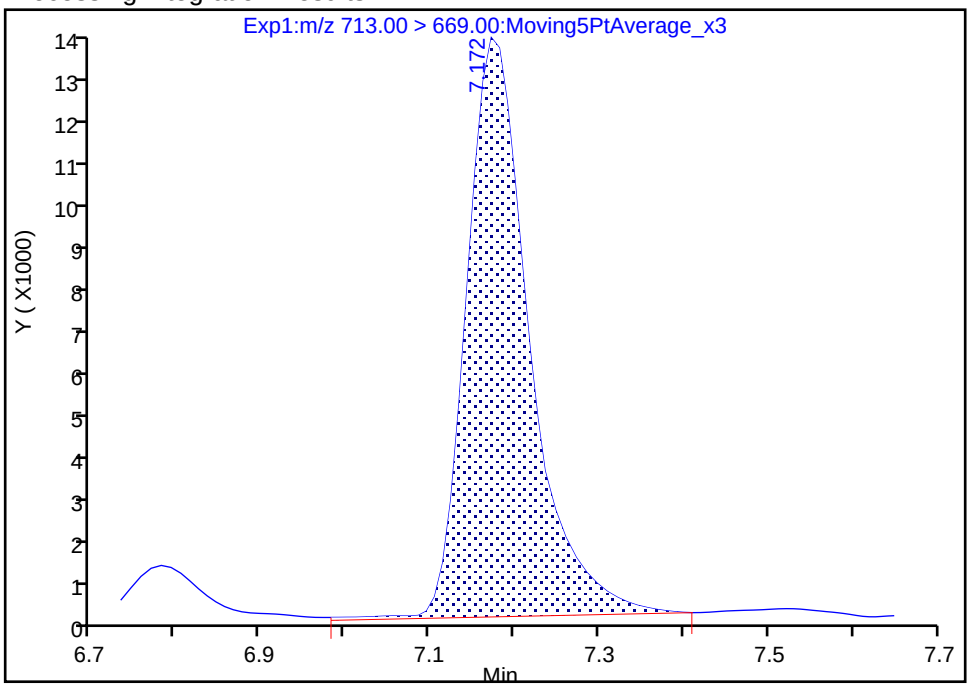
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-08.d				
Injection Date:	01-Mar-2022 22:32:59	Instrument ID:	30728		
Lims ID:	ICB				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20001	Worklist Smp#:	8
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

101 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

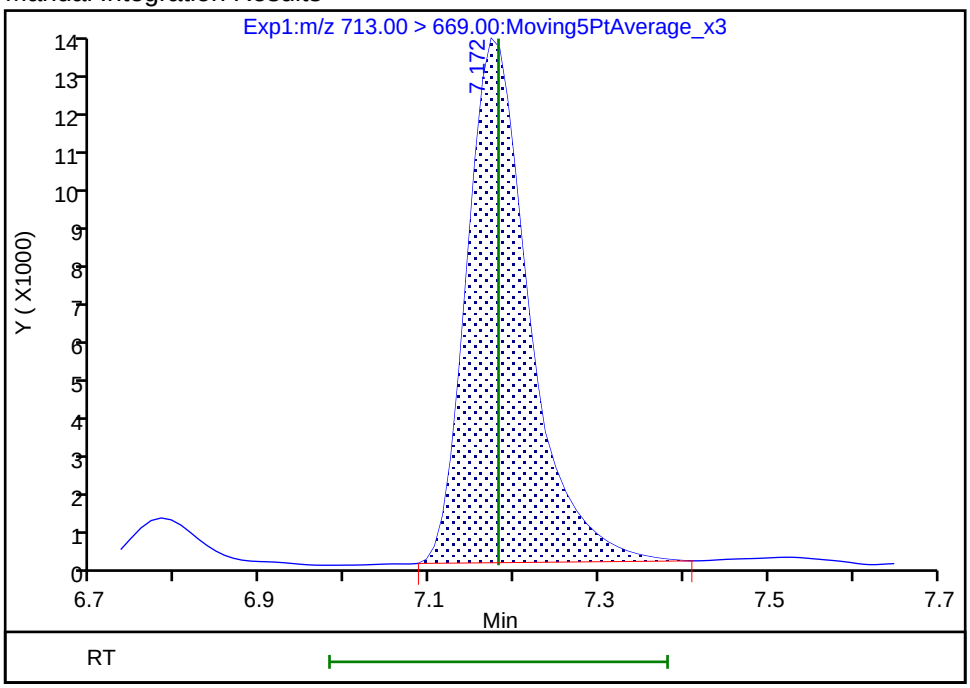
Processing Integration Results

RT: 7.17
Area: 69109
Amount: 0.169567
Amount Units: ng/ml



Manual Integration Results

RT: 7.17
Area: 68032
Amount: 0.166924
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:28:23

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

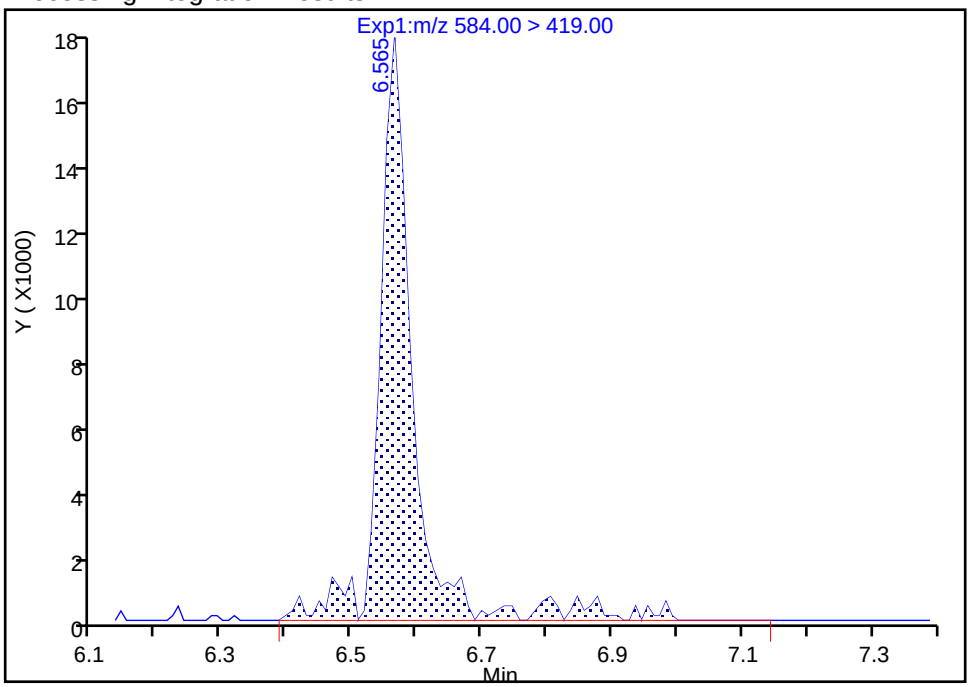
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-08.d				
Injection Date:	01-Mar-2022 22:32:59	Instrument ID:	30728		
Lims ID:	ICB				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20001	Worklist Smp#:	8
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

82 NEtFOSAA, CAS: 2991-50-6

Signal: 1

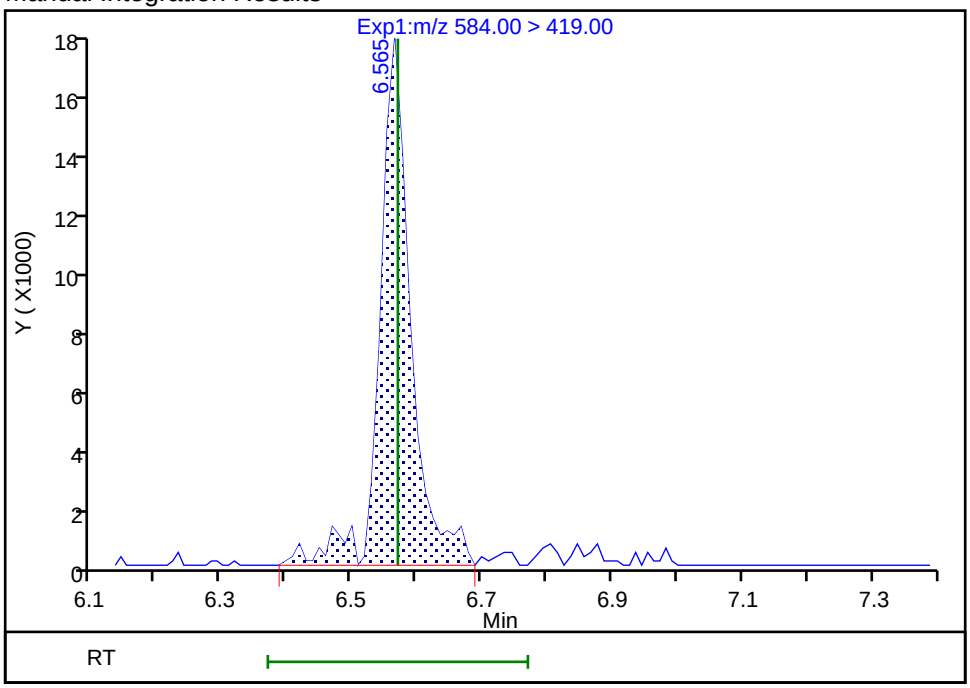
Processing Integration Results

RT: 6.57
Area: 64180
Amount: 0.372493
Amount Units: ng/ml



Manual Integration Results

RT: 6.57
Area: 58899
Amount: 0.341843
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:27:54

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

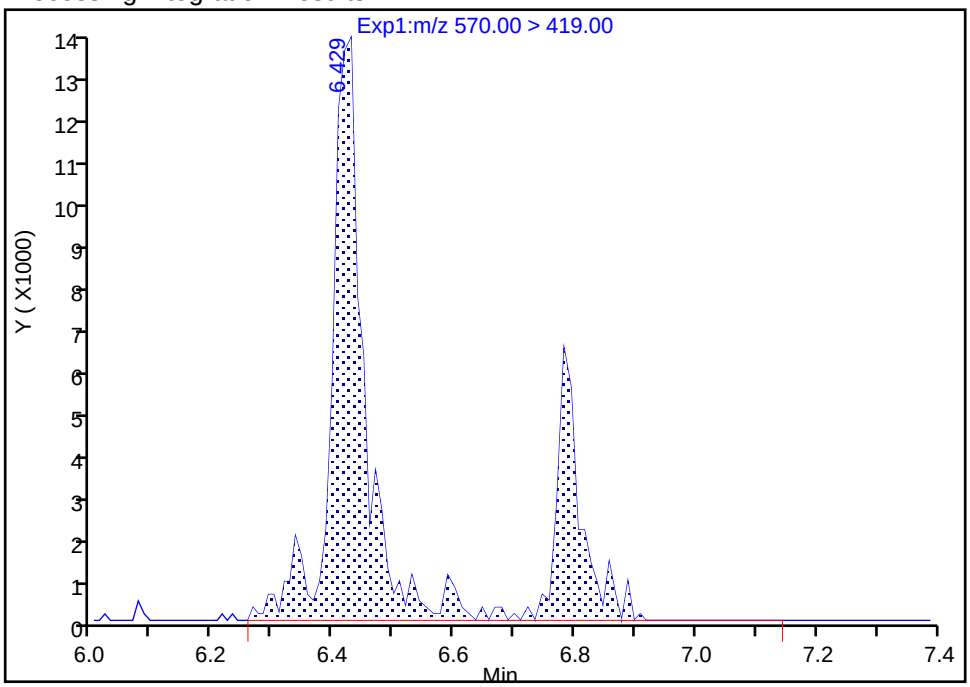
Data File:	\\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-08.d				
Injection Date:	01-Mar-2022 22:32:59	Instrument ID:	30728		
Lims ID:	ICB				
Client ID:					
Operator ID:	US19_USR_INS20261	ALS Bottle#:	20001	Worklist Smp#:	8
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

76 NMeFOSAA, CAS: 2355-31-9

Signal: 1

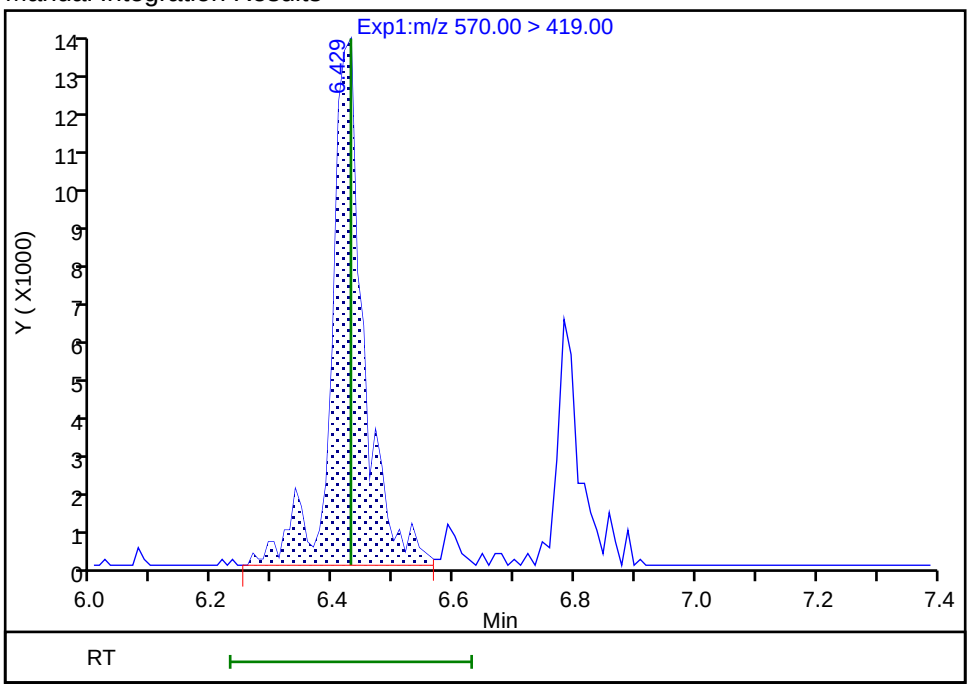
Processing Integration Results

RT: 6.43
Area: 70446
Amount: 0.371687
Amount Units: ng/ml



Manual Integration Results

RT: 6.43
Area: 50553
Amount: 0.266727
Amount Units: ng/ml



Reviewer: polaskia, 01-Mar-2022 23:27:46

Audit Action: Manually Integrated Audit Reason: Shouldering

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 410-226178/2-A
Matrix: Water
Lab File ID: 22FEB22-62.d
Analysis Method: 537 IDA
Date Collected:
Extraction Method: 537 IDA
Date Extracted: 02/22/2022 07:11
Sample wt/vol: 250(mL)
Date Analyzed: 02/23/2022 09:02
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 5(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 226634
Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	19.2		2.0	0.50
375-85-9	Perfluoroheptanoic acid	19.3		2.0	0.50
335-67-1	Perfluorooctanoic acid	20.6		2.0	0.50
375-95-1	Perfluorononanoic acid	20.4		2.0	0.50
335-76-2	Perfluorodecanoic acid	18.2		2.0	0.50
72629-94-8	Perfluorotridecanoic acid	19.9		2.0	0.50
376-06-7	Perfluorotetradecanoic acid	20.5		2.0	0.50
375-73-5	Perfluorobutanesulfonic acid	18.4		2.0	0.50
355-46-4	Perfluorohexanesulfonic acid	17.3		2.0	0.50
1763-23-1	Perfluorooctanesulfonic acid	18.3		2.0	0.50
2991-50-6	NEtFOSAA	19.8		3.0	0.50
2355-31-9	NMeFOSAA	19.8		2.0	0.60
375-92-8	Perfluoroheptanesulfonic acid	18.6		2.0	0.50
335-77-3	Perfluorodecanesulfonic acid	17.9		2.0	0.50
754-91-6	Perfluorooctanesulfonamide	24.3		2.0	0.50
375-22-4	Perfluorobutanoic acid	18.0		5.0	2.0
2058-94-8	Perfluoroundecanoic acid	20.8		2.0	0.50
307-55-1	Perfluorododecanoic acid	19.7		2.0	0.50
27619-97-2	6:2 Fluorotelomer sulfonic acid	22.0		5.0	2.0
39108-34-4	8:2 Fluorotelomer sulfonic acid	18.8		3.0	1.0
2706-90-3	Perfluoropentanoic acid	19.3		2.0	0.50

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-226178/2-A

Matrix: Water Lab File ID: 22FEB22-62.d

Analysis Method: 537 IDA Date Collected:

Extraction Method: 537 IDA Date Extracted: 02/22/2022 07:11

Sample wt/vol: 250(mL) Date Analyzed: 02/23/2022 09:02

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

Injection Volume: 5(uL) GC Column: Gemini C18 50mm ID: 3(mm)

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

Analysis Batch No.: 226634 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	168		33-200
STL02279	M2-6:2 FTS	148		17-200
STL02577	13C5 PFHxA	161		24-179
STL01892	13C4 PFHpA	173		31-182
STL01052	13C8 PFOA	159		48-162
STL02578	13C9 PFNA	174	*5+	51-167
STL02579	13C6 PFDA	172	*5+	49-163
STL02580	13C7 PFUnA	162		34-174
STL02703	13C2-PFDoDA	147		17-176
STL02116	13C2 PFTeDA	131		10-179
STL02337	13C3 PFBS	156		16-200
STL02581	13C3 PFHxS	175		28-188
STL01054	13C8 PFOS	173	*5+	51-159
STL02118	d3-NMeFOSAA	162		31-174
STL02117	d5-NEtFOSAA	176		29-195
STL01056	13C8 FOSA	148		10-168
STL00992	13C4 PFBA	162		42-165
STL01893	13C5 PFPeA	160		38-187

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-62.d
Lims ID: LCS 410-226178/2-A
Client ID:
Sample Type: LCS
Inject. Date: 23-Feb-2022 09:02:21 ALS Bottle#: 50 Worklist Smp#: 58
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: LCS 410-226178/2-A
Misc. Info.: Plate: 3 Rack: 1 410-0050963-058
Operator ID: US19_USR_INS20260 Instrument ID: 30733

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 11:52:21 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1671

First Level Reviewer: kruelleh Date: 23-Feb-2022 11:10:07
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										
175.00 > 97.00	1.461	1.469	-0.008	0.367	91734	7.45		116	5448	
1 PPF Acid										
163.00 > 119.00	1.822	1.837	-0.015	0.457	481162	4.87		76.0	3438	
96 PFMOAA										
179.00 > 85.00	2.932	2.942	-0.010	0.736	274167	4.54		70.9	1015	
100 R-PSDA										
441.00 > 241.00	3.965	3.947	0.018	0.865	24764	6.02		94.0	1982	
99 R-EVE										
405.00 > 217.00	3.965	3.947	0.018	0.996	80688	5.21		81.4	4800	
105 Hydrolyzed PSDA										
439.00 > 343.00	3.982	3.963	0.019	0.869	134816	6.51		102	9476	
D 3 13C4 PFBA										
217.00 > 172.00	3.982	3.972	0.010	1.000	2007271	16.2		162	153247	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.982	3.972	0.010	1.000	852451	4.50		70.4	13083	
* 4 13C3-PFBA										
216.00 > 172.00	3.982	3.972	0.010		555321	5.00			2141	
102 PMPA										
229.00 > 185.00	4.110	4.098	0.012	1.032	488810	5.58		87.3	9602	
5 PFPrS										
249.00 > 99.00	4.172	4.159	0.013	1.048	187278	4.07		69.4	13262	
103 NVHOS										
297.00 > 135.00	4.214	4.191	0.023	0.919	217302	5.75		89.8	15223	
6 PFECA F										
229.00 > 85.00	4.235	4.223	0.012	1.064	811517	4.50		70.4	13876	
92 PFO2HxA										
245.00 > 85.00	4.415	4.402	0.013	1.109	297750	4.90		76.6	15872	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
7 Perfluoropentanoic acid										
263.00 > 219.00	4.526	4.514	0.012	0.998	851980	4.81		75.2	19006	
D 8 13C5 PFPeA										
268.00 > 223.00	4.536	4.524	0.012	1.139	1705948	16.0		160	95425	
9 3:3 FTCA										
241.00 > 177.00	4.536	4.524	0.012	1.000	62804	5.49		85.8	4659	
D 11 13C3 PFBS										
302.00 > 80.00	4.584	4.572	0.012	1.151	1227606	14.5		156	94242	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.584	4.572	0.012	1.000	653995	4.60	Target=3.22	81.3	38219	
299.00 > 99.00	4.584	4.572	0.012	1.000	199495		3.28(1.61-4.83)		15418	
91 PEPA										
279.00 > 235.00	4.638	4.628	0.010	1.165	204070	5.54		86.5	8236	
12 PFECA A										
279.00 > 85.00	4.664	4.653	0.011	1.017	616766	4.89		76.4	38221	
13 PES										
315.00 > 135.00	4.749	4.740	0.009	1.036	1860770	4.24		74.4	150495	
14 PFECA B										
201.00 > 85.00	4.881	4.870	0.011	1.065	779514	5.03	Target=1.44	78.6	4182	
295.00 > 201.00	4.881	4.870	0.011	1.065	509637		1.53(0.72-2.15)		37099	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.911	4.899	0.012	0.860	272344	16.4		176	19408	
15 4:2 FTS										
327.00 > 307.00	4.911	4.899	0.012	1.000	400202	4.41	Target=1.53	73.7	28954	
327.00 > 81.00	4.911	4.899	0.012	1.000	212683		1.88(0.77-2.30)		15231	
D 19 13C5 PFHxA										
318.00 > 273.00	4.953	4.940	0.013	0.868	2073984	16.1		161	149080	
17 Perfluorohexanoic acid										
313.00 > 269.00	4.953	4.940	0.013	1.000	836475	4.81	Target=16.07	75.1	16334	
313.00 > 119.00	4.953	4.940	0.013	1.000	58176		14.38(8.04-24.11)		4160	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.972	4.960	0.012	1.085	627017	5.03	Target=3.46	83.8	45723	
349.00 > 99.00	4.962	4.960	0.002	1.083	173462		3.61(1.73-5.19)		12777	
93 PFO3OA										
311.00 > 85.00	5.010	4.999	0.011	1.258	329391	5.74		89.8	25274	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.081	5.070	0.011	0.890	301302	15.9		159	23262	
21 HFPO-DA										
329.00 > 285.00	5.081	5.070	0.011	1.000	276969	4.81		75.1	16089	
106 Hydro-PS Acid										
463.00 > 263.00	5.357	5.273	0.084	1.169	1384875	5.57		87.1	302505	
97 Hydro-EVE Acid										
427.00 > 283.00	5.296	5.284	0.012	1.330	1444711	5.69		88.9	328864	
94 R-PSDCA										
397.00 > 217.00	5.296	5.284	0.012	1.155	1584957	5.04		78.8	65878	
D 25 13C3 PFHxS										
402.00 > 80.00	5.338	5.326	0.012	0.935	1317337	16.5		175	95666	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.338	5.326	0.012	1.000	655468	4.33	Target=3.59	74.2	1351	
399.00 > 99.00	5.338	5.326	0.012	1.000	175121		3.74(1.79-5.38)		465	
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.338	5.326	0.012	0.998	1212526	4.83	Target=3.65	75.5	32964	
363.00 > 169.00	5.338	5.326	0.012	0.998	325040		3.73(1.82-5.47)		23475	
D 24 13C4 PFHpA										
367.00 > 322.00	5.348	5.337	0.011	0.937	2484536	17.3		173	181468	
27 DONA										
377.00 > 251.00	5.392	5.374	0.018	1.008	1461275	4.62		76.3	86959	
98 PFECA G										
379.00 > 185.00	5.409	5.391	0.018	1.358	1531659	5.27		82.3	123655	
28 5:3 FTCA										
341.00 > 237.00	5.425	5.407	0.018	1.014	223299	4.46	Target=50.84	69.7	17836	
339.00 > 295.00	5.451	5.407	0.043	1.019	4759		46.92(25.42-76.26)		126	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.442	5.432	0.010	0.954	1527599	12.3		123	89637	
29 6:2 FTUCA										
357.00 > 293.00	5.442	5.432	0.010	1.000	1200138	5.78		90.3	72205	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.467	5.449	0.018	0.958	323237	28.4		284	25528	
32 6:2 FTCA										
377.00 > 293.00	5.459	5.449	0.010	0.998	104501	3.07		47.9	6133	
95 PFO4DA										
377.00 > 85.00	5.520	5.502	0.018	1.386	341105	5.13		80.2	680	
104 PS Acid										
443.00 > 147.00	5.562	5.544	0.018	1.213	72153	0.9142		14.3	5809	
90 EVE Acid										
407.00 > 263.00	5.579	5.569	0.010	1.401	236897	1.22		19.1	18470	
33 PFECHS										
461.00 > 381.00	5.650	5.629	0.021	1.058	1005438	4.06	Target=1.94	68.8	44036	
461.00 > 99.00	5.650	5.629	0.021	1.058	491783		2.04(0.97-2.91)		35570	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.697	5.677	0.020	0.998	96110	14.0		148	7094	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.697	5.677	0.020	1.067	658298	4.66	Target=3.50	76.4	48477	
449.00 > 99.00	5.688	5.677	0.011	1.066	174843		3.77(1.75-5.24)		12626	
34 6:2 FTS										
427.00 > 407.00	5.688	5.677	0.011	0.998	250386	5.49	Target=1.31	90.5	18145	
427.00 > 81.00	5.688	5.677	0.011	0.998	180306		1.39(0.65-1.96)		12938	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.707	5.696	0.011	1.000	989827	5.16	Target=2.48	80.6	105323	
413.00 > 169.00	5.707	5.696	0.011	1.000	381400		2.60(1.24-3.72)		1030	
D 37 13C8 PFOA										
421.00 > 376.00	5.707	5.696	0.011	1.000	2508484	15.9		159	110451	
* 38 13C2 PFOA										
415.00 > 370.00	5.707	5.696	0.011		596121	5.00			44348	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
101 TAF										
443.00 > 85.00	5.956	5.945	0.011	1.496	298361	5.03		78.7	23117	
D 41 13C8 PFOS										
507.00 > 80.00	6.027	6.015	0.012	1.000	1225130	16.6		173	34557	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00	6.027	6.015	0.012	1.000	625388	4.58	Target=4.38	77.3	880	
499.00 > 99.00	6.027	6.015	0.012	1.000	139113		4.50(2.19-6.57)		288	
* 42 13C4 PFOS										
503.00 > 80.00	6.027	6.015	0.012		350634	4.78			19808	
D 45 13C9 PFNA										
472.00 > 427.00	6.046	6.033	0.013	1.003	2137581	17.4		174	95719	
44 Perfluorononanoic acid										
463.00 > 419.00	6.046	6.033	0.013	1.000	1009309	5.10	Target=4.84	79.7	38153	
463.00 > 169.00	6.046	6.033	0.013	1.000	186100		5.42(2.42-7.25)		13961	
46 7:3 FTCA										
441.00 > 337.00	6.150	6.139	0.011	1.125	261058	2.45		38.3	20532	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.158	6.148	0.010	0.969	1936182	12.3		123	155417	
47 8:2 FTUCA										
457.00 > 393.00	6.158	6.148	0.010	1.000	1248963	6.05		94.6	74307	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.173	6.164	0.009	0.971	266025	25.3		253	21513	
49 8:2 FTCA										
477.00 > 393.00	6.173	6.164	0.009	1.000	94993	3.81		59.5	7741	
51 9ClFOS										
531.00 > 351.00	6.197	6.187	0.010	1.028	1076285	4.62		77.6	53011	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.328	6.316	0.012	1.050	619869	4.84	Target=4.28	78.8	45486	
549.00 > 99.00	6.328	6.316	0.012	1.050	147708		4.20(2.14-6.42)		10941	
D 54 13C6 PFDA										
519.00 > 474.00	6.357	6.344	0.013	1.000	2434162	17.2		172	129144	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.347	6.344	0.002	0.998	1086554	4.56	Target=10.44	71.2	38473	
513.00 > 169.00	6.347	6.344	0.002	0.998	104507		10.40(5.22-15.66)		7480	
* 55 13C2 PFDA										
515.00 > 470.00	6.357	6.344	0.013		712119	5.00			50566	
56 8:2 FTS										
527.00 > 507.00	6.357	6.344	0.013	1.000	235811	4.69	Target=1.54	76.5	16646	
527.00 > 81.00	6.357	6.344	0.013	1.000	147809		1.60(0.77-2.31)		7789	
D 57 M2-8:2 FTS										
529.00 > 81.00	6.357	6.354	0.003	1.000	62308	16.1		168	4347	
D 59 13C8 FOSA										
506.00 > 78.00	6.442	6.419	0.023	1.013	1978396	14.8		148	136668	
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.431	6.419	0.012	0.998	1209450	6.08		95.1	63001	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.503	6.491	0.012	1.023	776476	16.2		162	39476	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
60 NMeFOSAA										M
570.00 > 419.00	6.503	6.491	0.012	1.000	316598	4.95	Target=1.64	77.3	121627	M
570.00 > 483.00	6.503	6.491	0.012	1.000	181696		1.74(0.82-2.46)		441	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.593	6.580	0.013	1.094	594925	4.47	Target=4.07	72.5	22906	
599.00 > 99.00	6.593	6.580	0.013	1.094	145181		4.10(2.03-6.10)		9361	
D 65 13C7 PFUnA										
570.00 > 525.00	6.628	6.615	0.013	1.043	2225660	16.2		162	88622	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.628	6.615	0.013	1.000	1022289	5.20	Target=8.63	81.3	22615	
563.00 > 169.00	6.628	6.615	0.013	1.000	108105		9.46(4.31-12.94)		7014	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.640	6.626	0.014	1.045	587935	17.6		176	29193	
67 NEtFOSAA										
584.00 > 419.00	6.650	6.638	0.012	1.002	259020	4.94	Target=1.31	77.2	91300	
584.00 > 526.00	6.640	6.638	0.002	1.000	169783		1.53(0.66-1.97)		403	
68 10:2 FTUCA										
557.00 > 493.00	6.727	6.713	0.014	0.998	812273	5.65		88.3	51685	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.739	6.725	0.014	1.060	1406687	11.8		118	89544	
69 11ClFOS										
631.00 > 451.00	6.739	6.725	0.014	1.118	805431	4.71		79.2	38862	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.751	6.737	0.014	1.062	145481	24.8		248	9315	
71 10:2 FTCA										
577.00 > 493.00	6.751	6.737	0.014	1.000	47762	3.56		55.6	3027	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.861	6.850	0.011	0.999	756124	4.94	Target=5.13	77.1	32590	
613.00 > 169.00	6.861	6.850	0.011	0.999	147957		5.11(2.56-7.69)		10613	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.872	6.850	0.022	1.081	1504959	14.7		147	64959	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.882	6.860	0.022	1.083	304942	14.4		144	10984	
77 N-MeFOSE-M										
616.00 > 59.00	6.882	6.870	0.012	1.000	159009	4.88		76.2	8821	
75 10:2 FTS										
627.00 > 607.00	6.882	6.870	0.012	1.083	153071	4.59	Target=0.83	74.4	11311	
627.00 > 81.00	6.882	6.870	0.012	1.083	180782		0.85(0.42-1.25)		13109	
D 79 d3-NMePFOSA										
515.00 > 169.00	6.892	6.880	0.012	1.084	155341	11.4		114	3835	
78 NMeFOSA										
512.00 > 169.00	6.892	6.880	0.012	1.000	81832	4.69		73.3	6050	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.036	7.013	0.023	1.107	333096	13.7		137	11880	
82 N-EtFOSE-M										
630.00 > 59.00	7.047	7.024	0.023	1.002	184833	5.33		83.3	9768	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
80 PFDoS										
699.00 > 80.00	7.036	7.024	0.012	1.167	508513	4.15		67.0	35692	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.057	7.035	0.022	1.110	147560	11.3		113	7884	
84 N-EtFOSA-M										
526.00 > 169.00	7.057	7.045	0.012	1.000	81972	5.25		82.0	4464	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.067	7.056	0.011	1.029	558912	4.97	Target=4.34	77.7	24283	
663.00 > 169.00	7.067	7.056	0.011	1.029	138720		4.03(2.17-6.51)		10017	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.236	7.226	0.010	0.998	532647	5.13	Target=5.08	80.2	18263	
713.00 > 169.00	7.236	7.226	0.010	0.998	102686		5.19(2.54-7.61)		7214	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.248	7.234	0.014	1.140	1131552	13.1		131	57874	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.543	7.534	0.009	1.041	450320	3.88	Target=9.01	60.6	23295	
813.00 > 169.00	7.543	7.534	0.009	1.041	50216		8.97(4.50-13.51)		4268	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.777	7.770	0.007	1.073	124476	2.58	Target=7.79	40.2	13755	
913.00 > 169.00	7.771	7.770	0.001	1.072	16708		7.45(3.89-11.68)		1856	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFC_IS_MOD_00273 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 23-Feb-2022 11:52:48 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-62.d

Injection Date: 23-Feb-2022 09:02:21 Instrument ID: 30733

Lims ID: LCS 410-226178/2-A

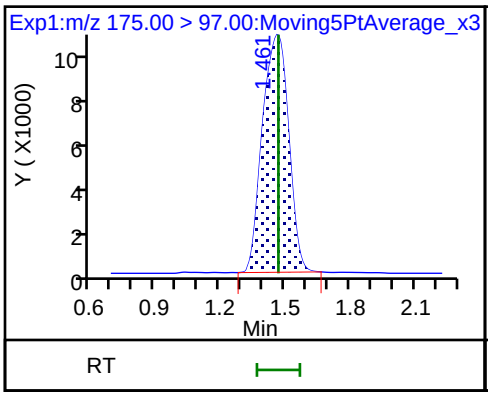
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 50 Worklist Smp#: 58

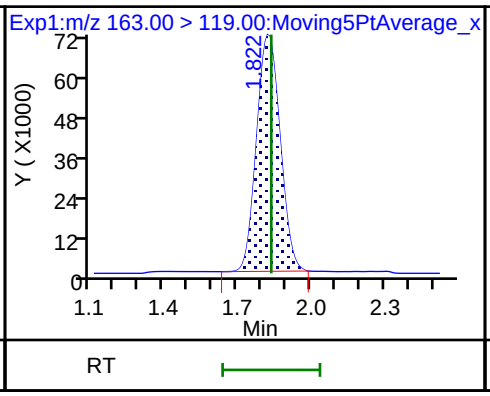
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

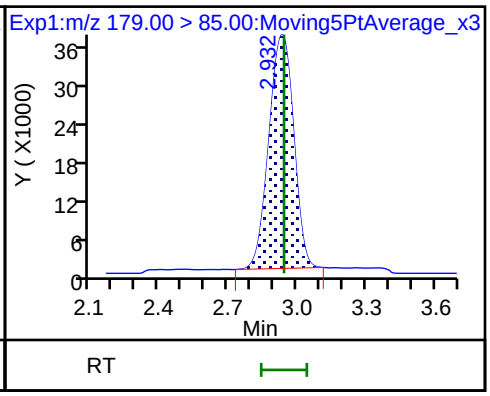
107 MTP



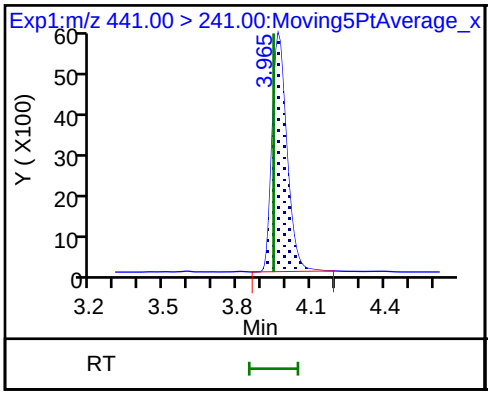
1 PPF Acid



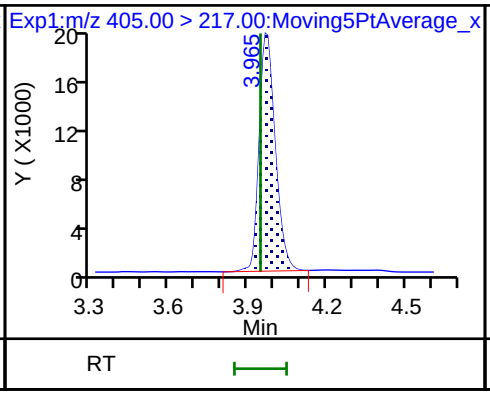
96 PFMOAA



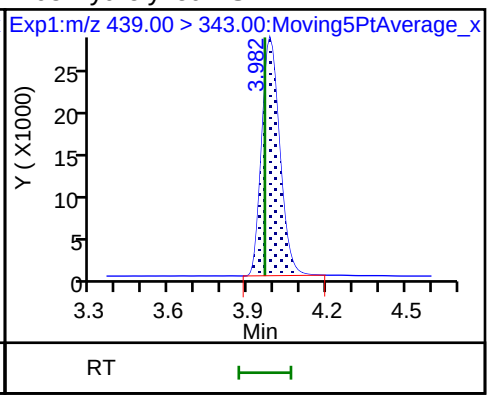
100 R-PSDA



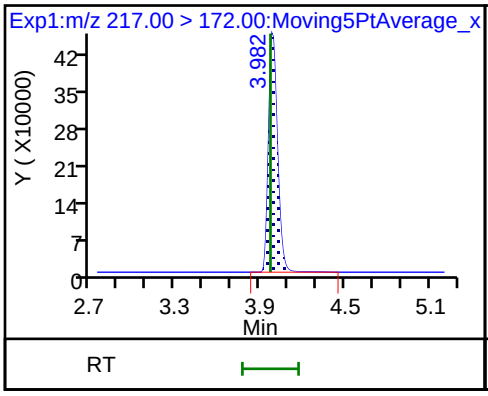
99 R-EVE



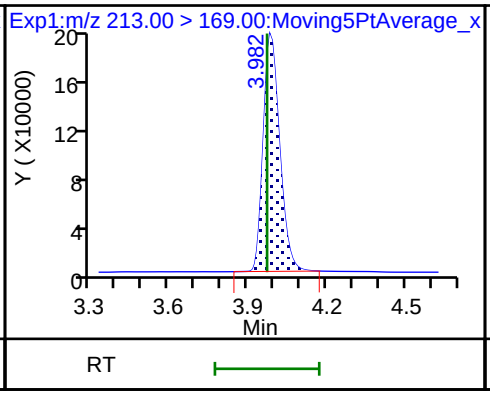
105 Hydrolyzed PSDA



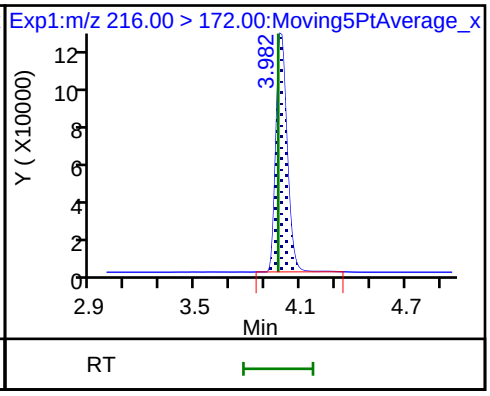
D 3 13C4 PFBA



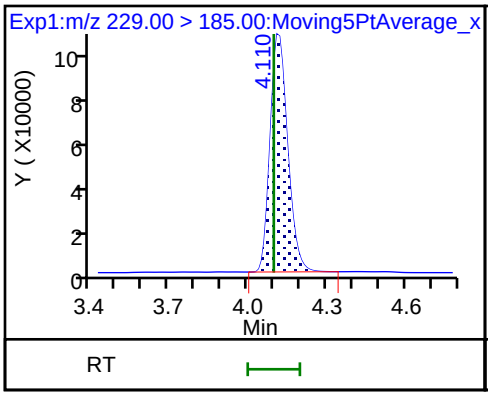
2 Perfluorobutanoic acid



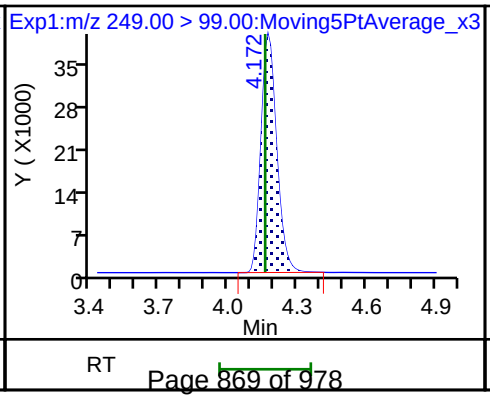
* 4 13C3-PFBA



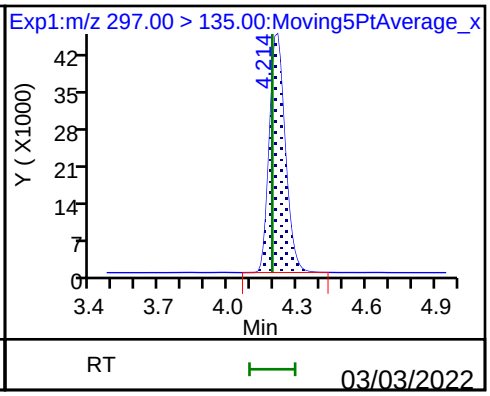
102 PMPA



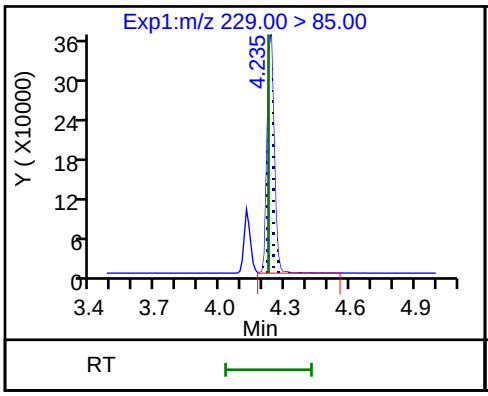
5 PFPrS



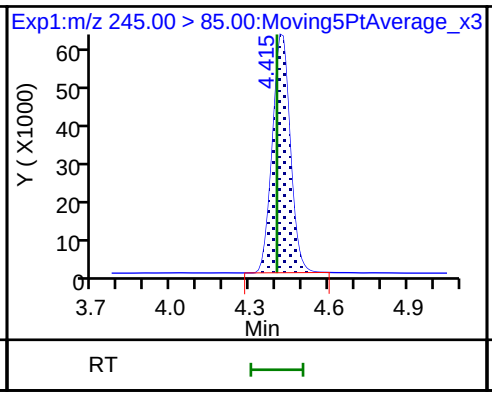
103 NVHOS



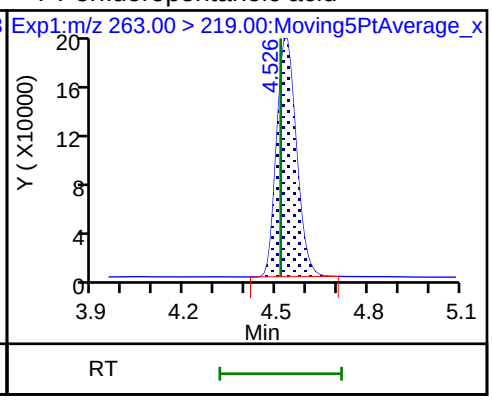
6 PFECA F



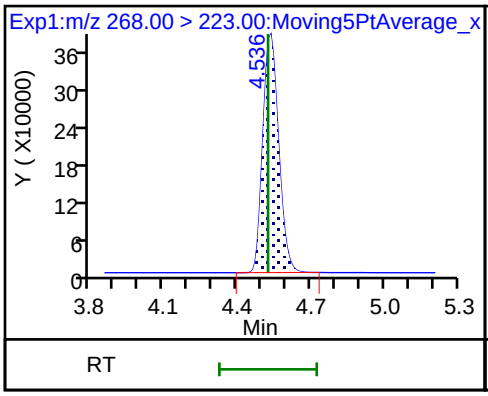
92 PFO2HxA



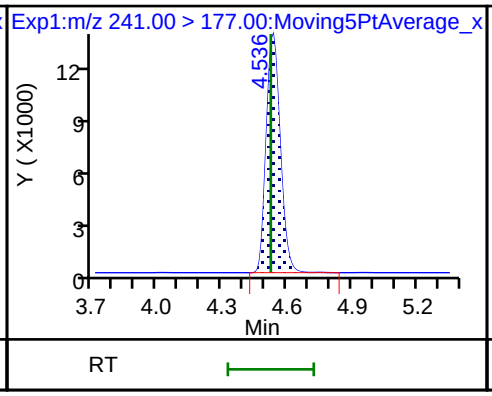
7 Perfluoropentanoic acid



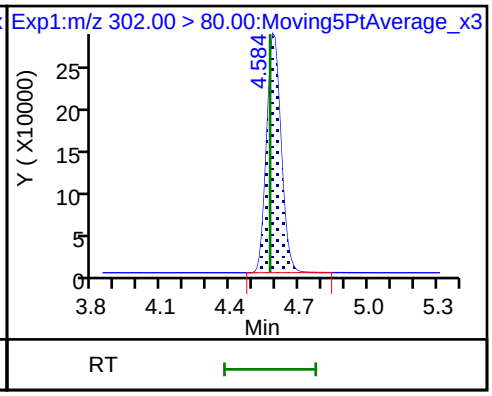
D 8 13C5 PFPeA



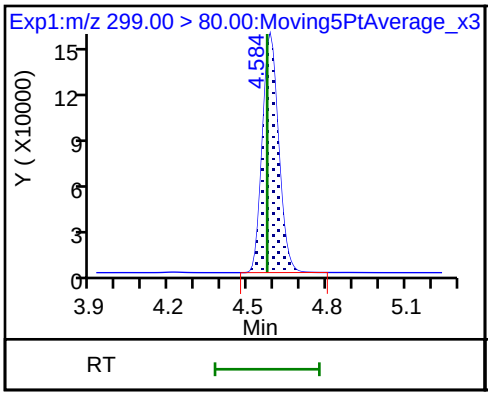
9 3:3 FTCA



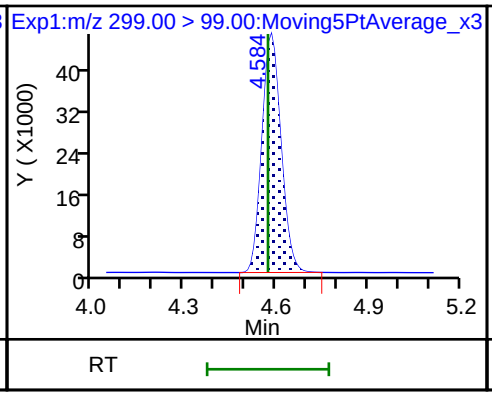
D 11 13C3 PFBS



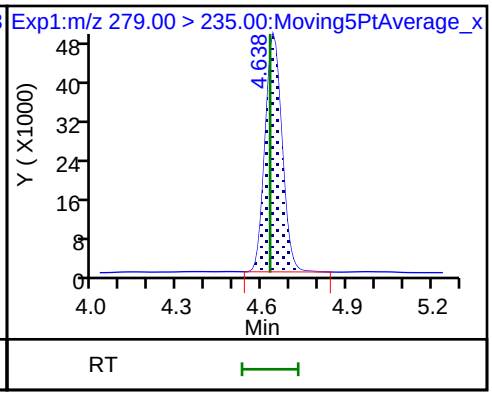
10 Perfluorobutanesulfonic acid



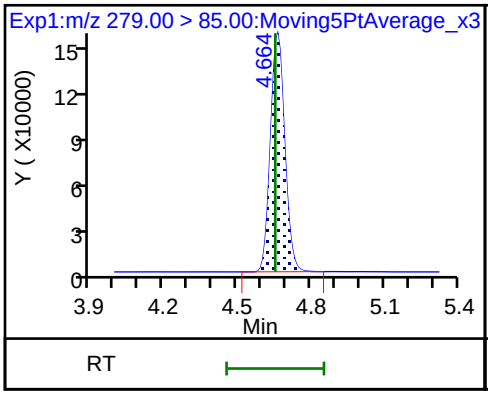
10 Perfluorobutanesulfonic acid



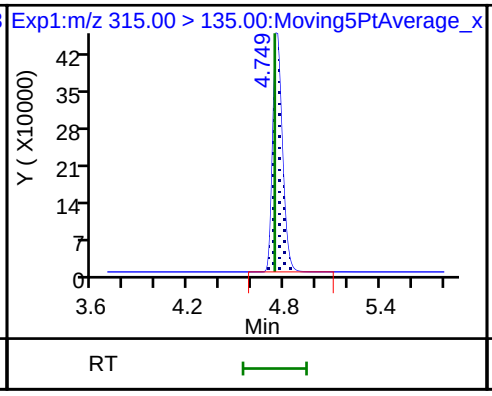
91 PEPA



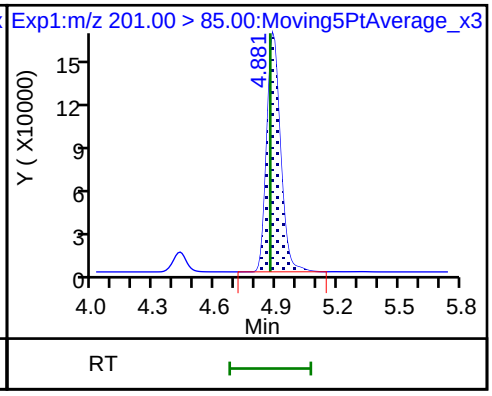
12 PFECA A



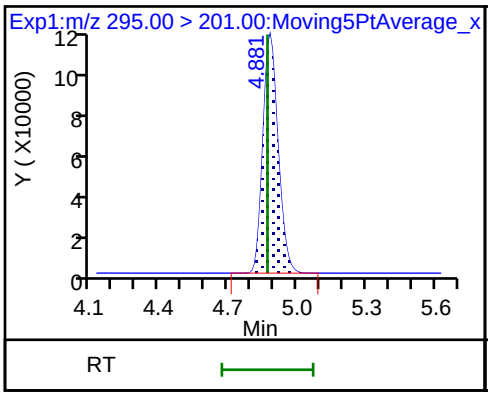
13 PES



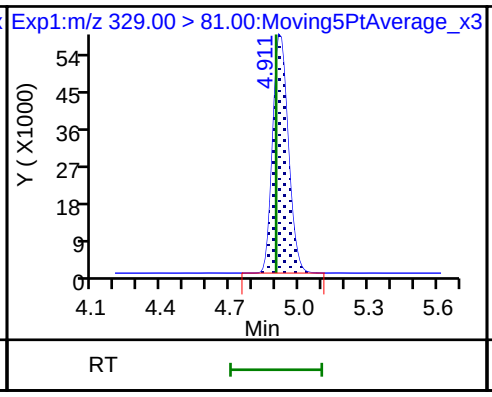
14 PFECA B



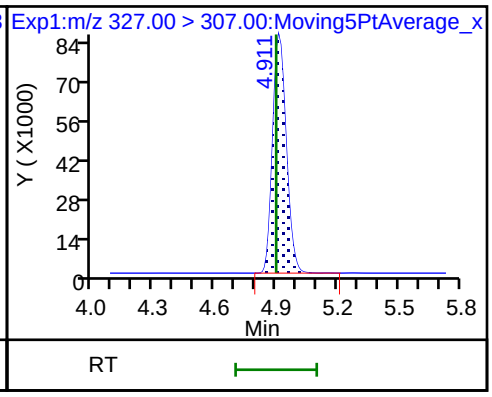
14 PFECA B



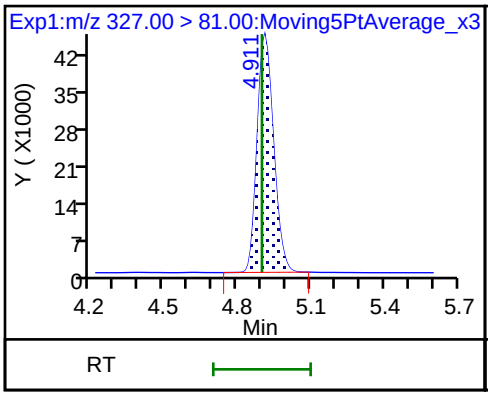
D 16 M2-4:2 FTS



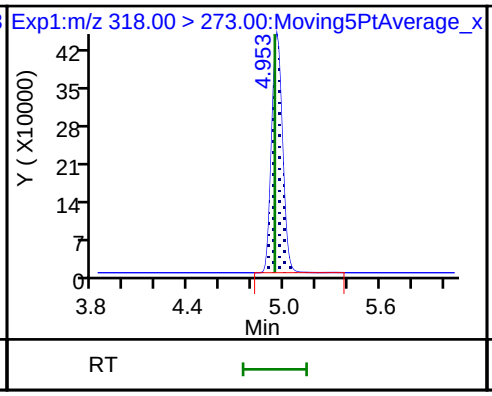
15 4:2 FTS



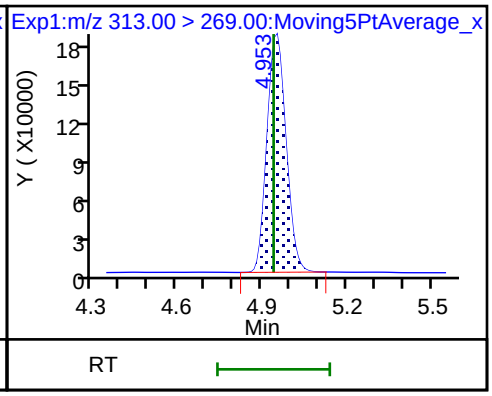
15 4:2 FTS



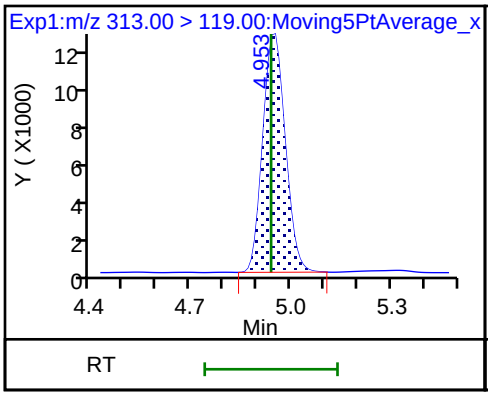
D 19 13C5 PFHxA



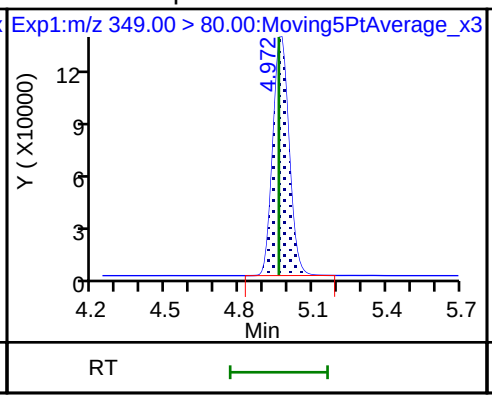
17 Perfluorohexanoic acid



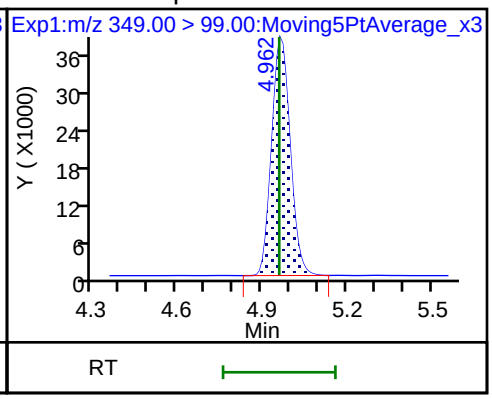
17 Perfluorohexanoic acid



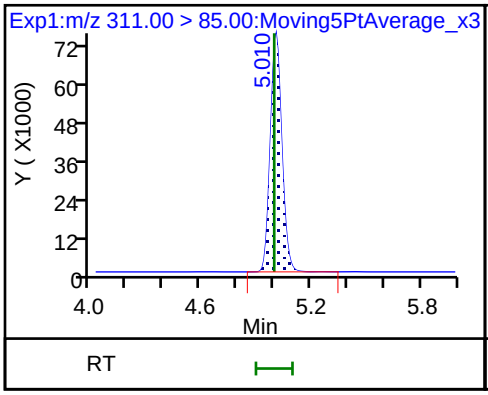
20 Perfluoropentanesulfonic acid



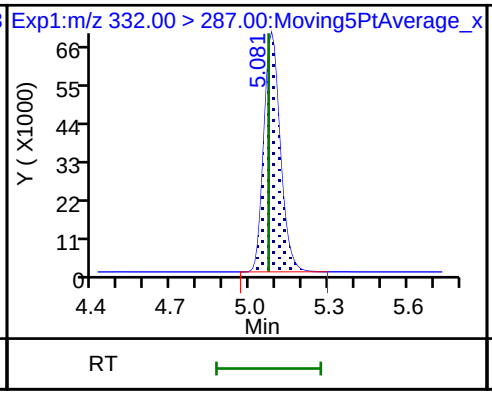
20 Perfluoropentanesulfonic acid



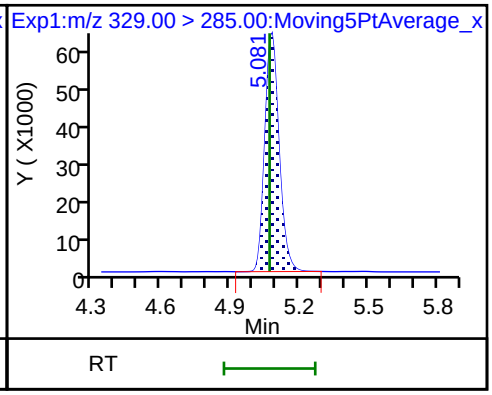
93 PFO3OA



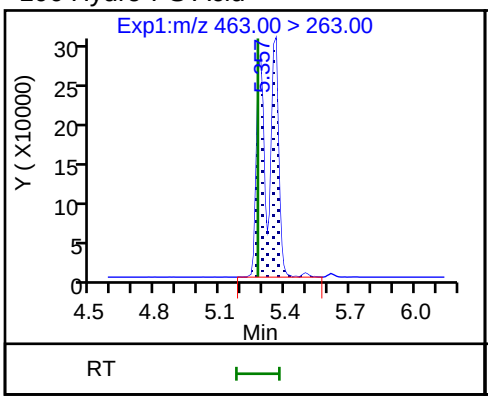
D 22 13C3 HFPO-DA



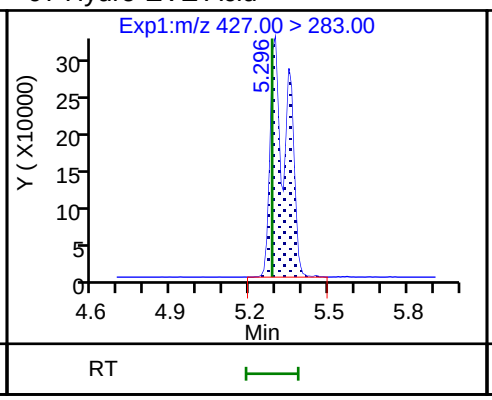
21 HFPO-DA



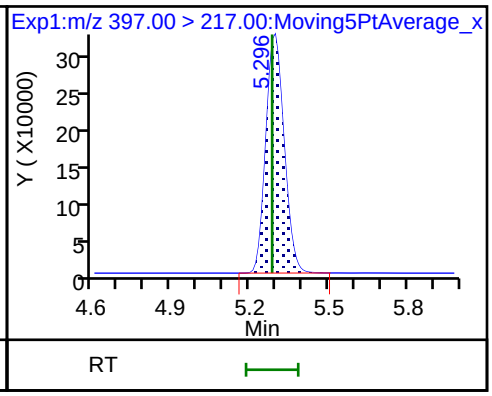
106 Hydro-PS Acid



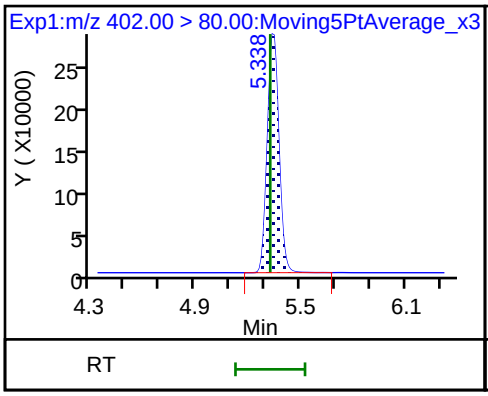
97 Hydro-EVE Acid



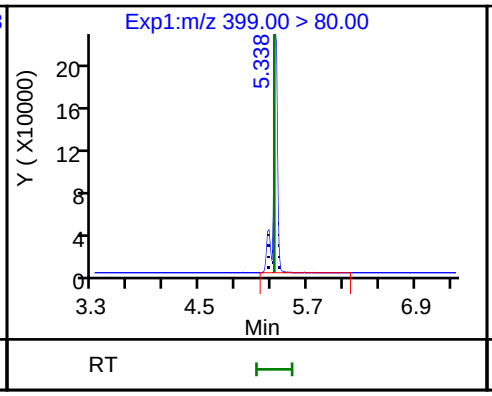
94 R-PSDCA



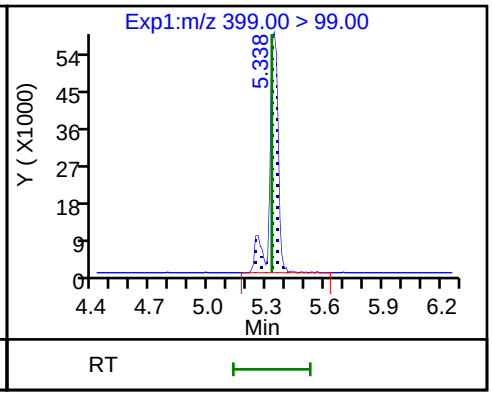
D 25 13C3 PFHxS



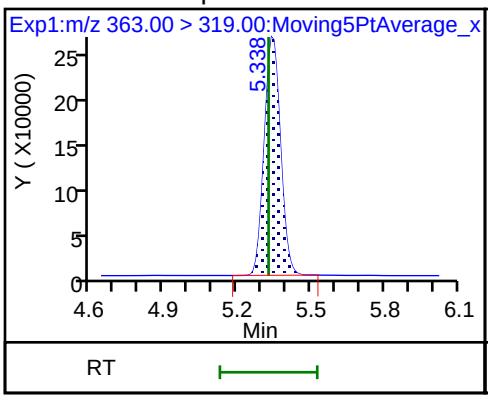
26 Perfluorohexanesulfonic acid



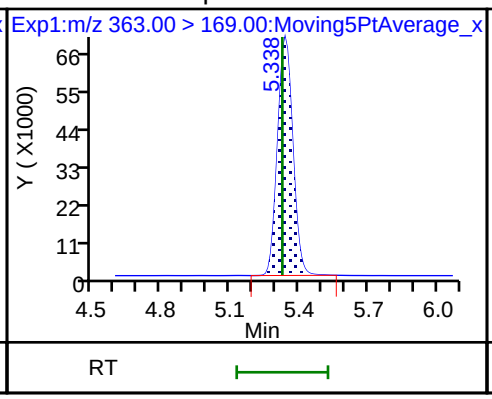
26 Perfluorohexanesulfonic acid



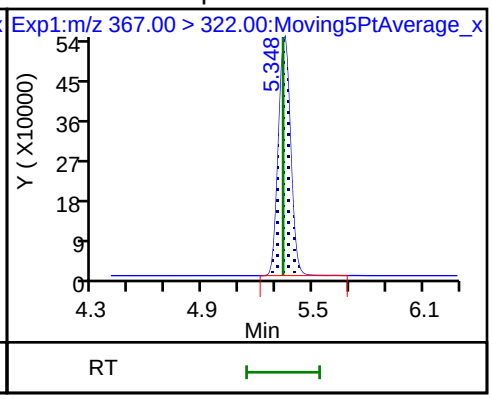
23 Perfluoroheptanoic acid



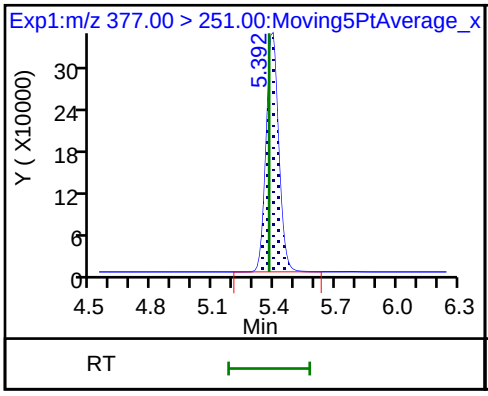
23 Perfluoroheptanoic acid



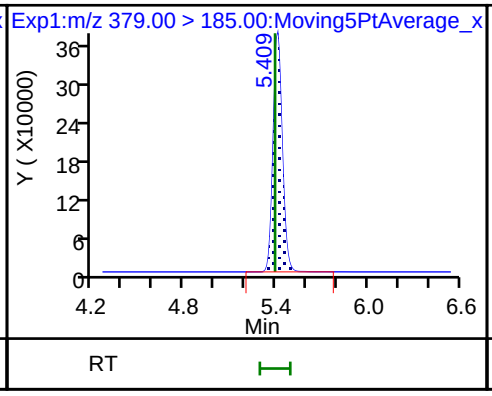
D 24 13C4 PFHpA



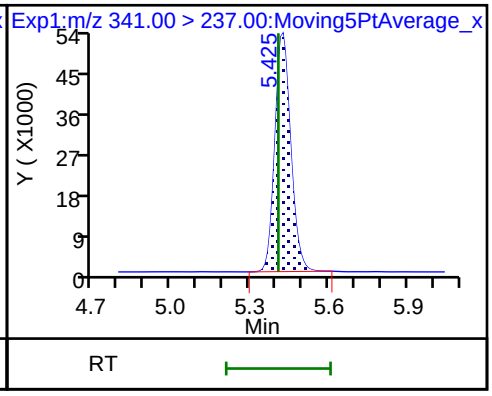
27 DONA



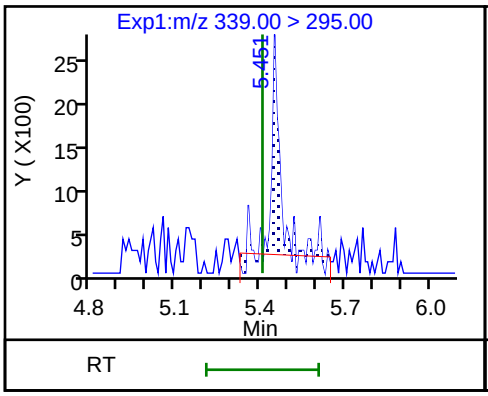
98 PFECA G



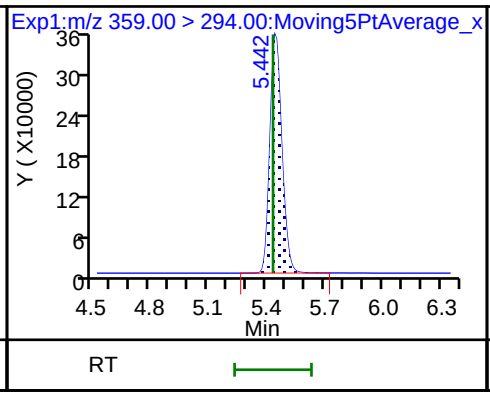
28 5:3 FTCA



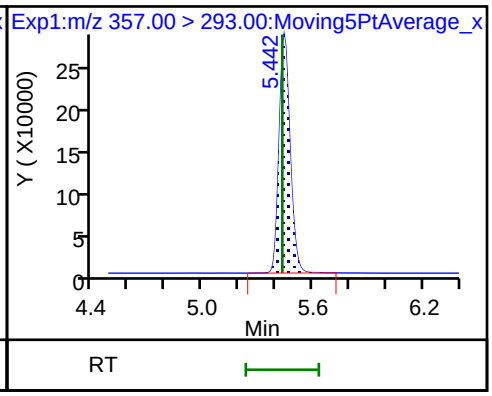
28 5:3 FTCA



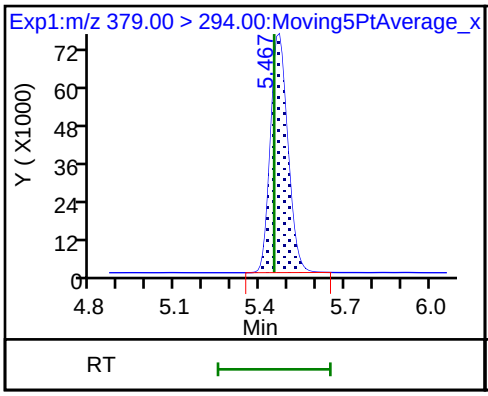
D 30 13C-6:2 FTUCA



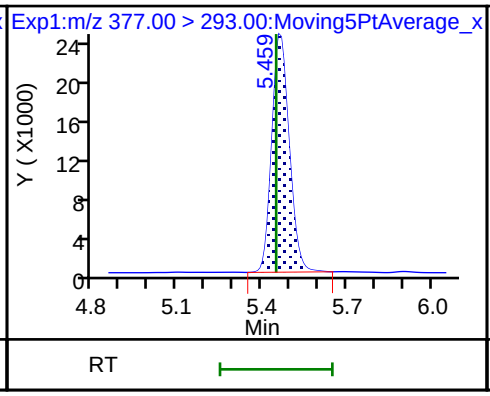
29 6:2 FTUCA



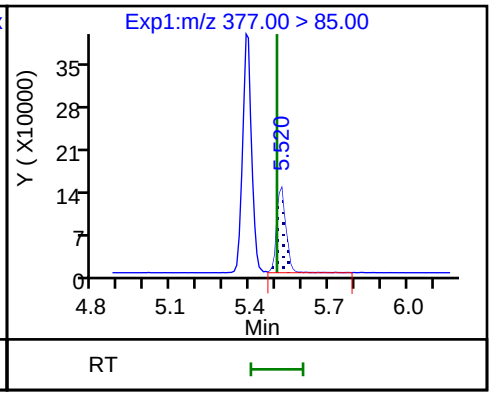
D 31 13C-6:2 FTCA



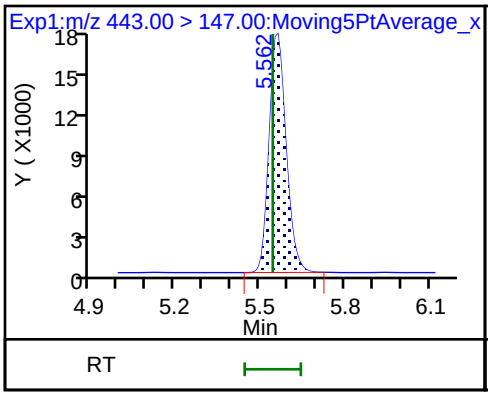
32 6:2 FTCA



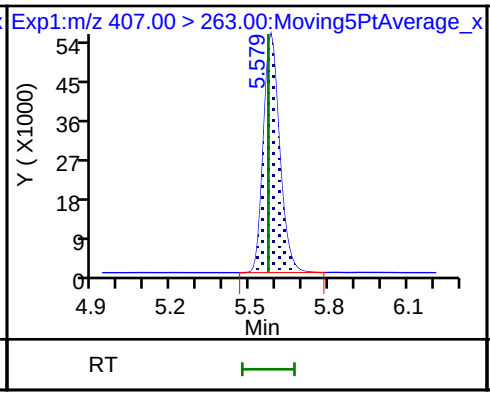
95 PFO4DA



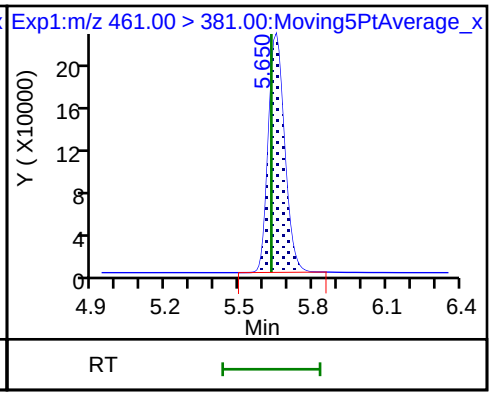
104 PS Acid



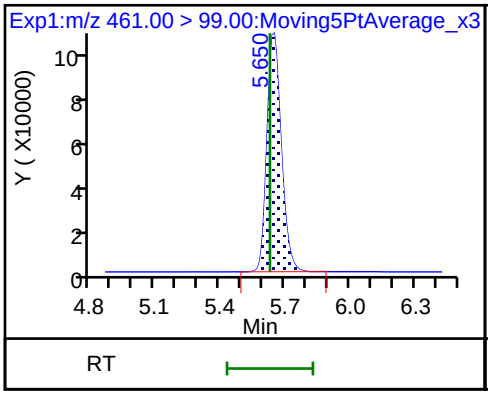
90 EVE Acid



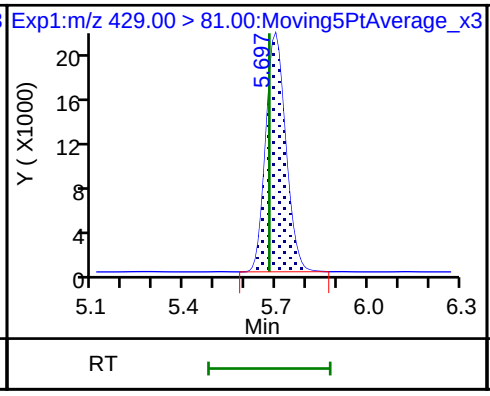
33 PFECHS



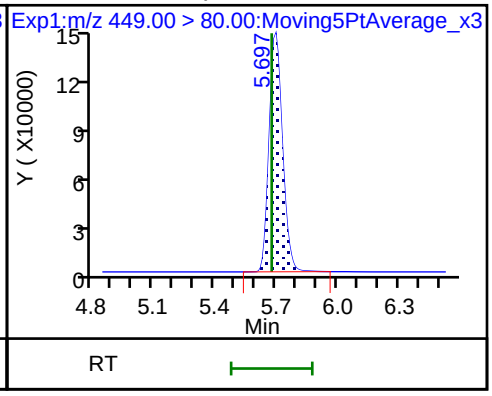
33 PFECHS



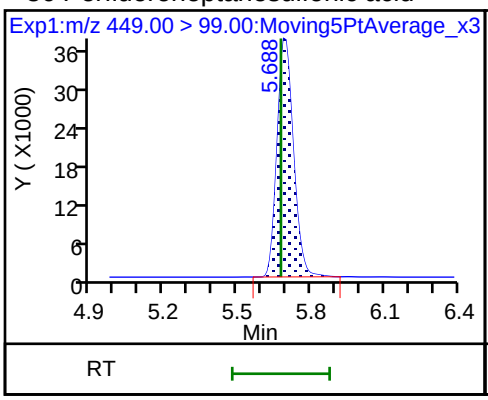
D 35 M2-6:2 FTS



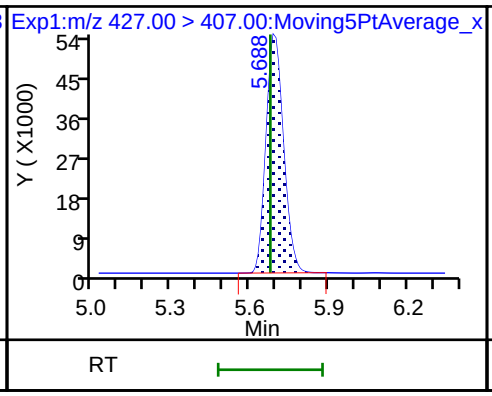
36 Perfluoroheptanesulfonic acid



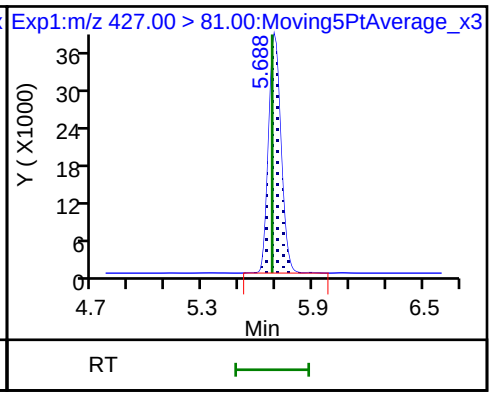
36 Perfluoroheptanesulfonic acid



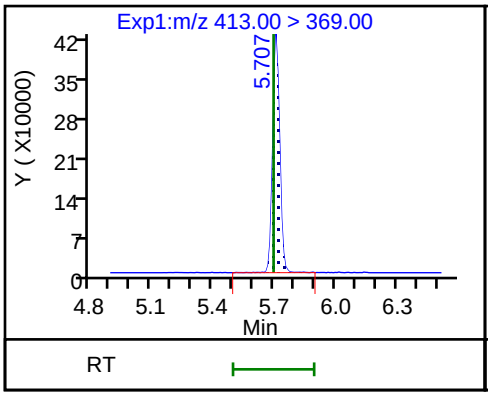
34 6:2 FTS



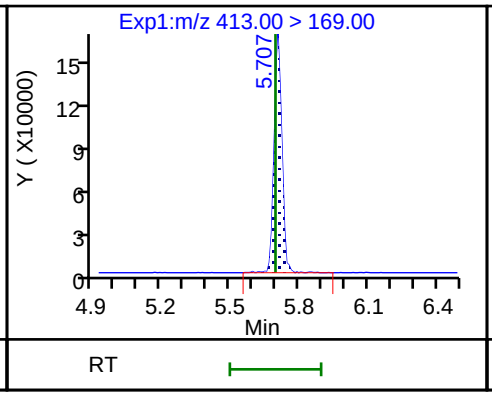
34 6:2 FTS



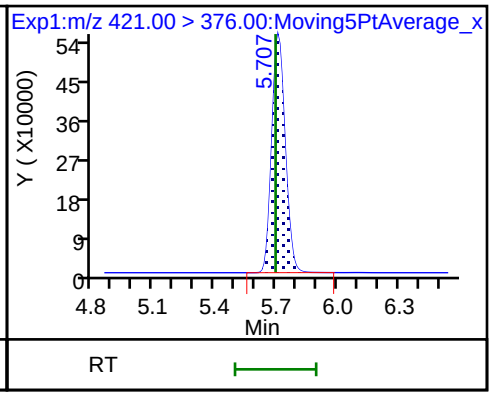
40 Perfluorooctanoic acid



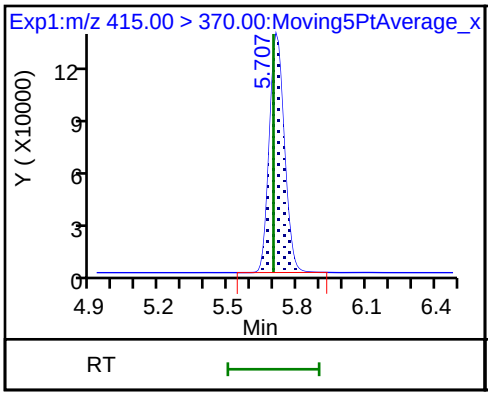
40 Perfluorooctanoic acid



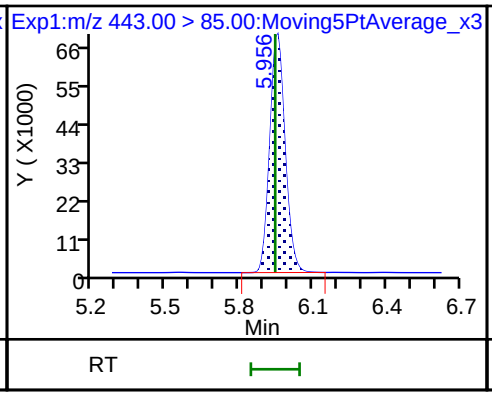
D 37 13C8 PFOA



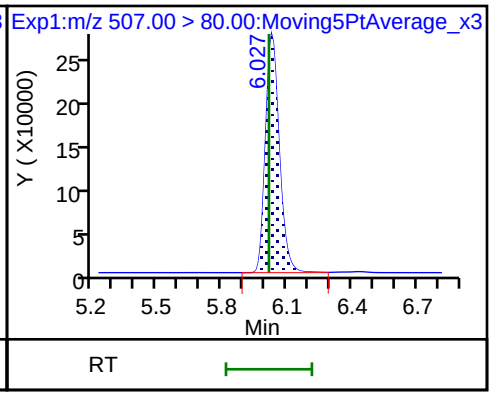
* 38 13C2 PFOA



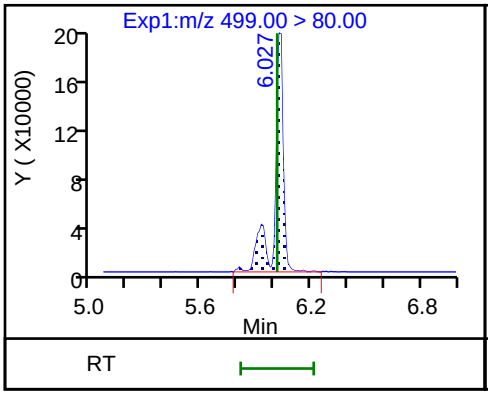
101 TAF



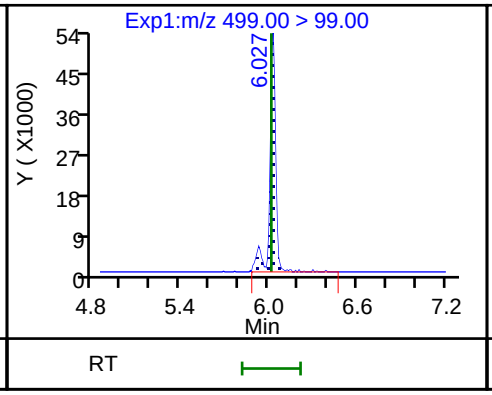
D 41 13C8 PFOS



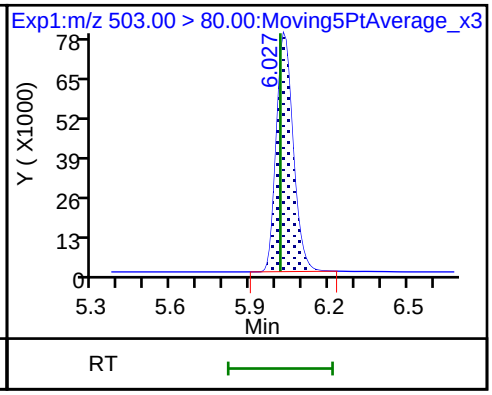
43 Perfluorooctanesulfonic acid



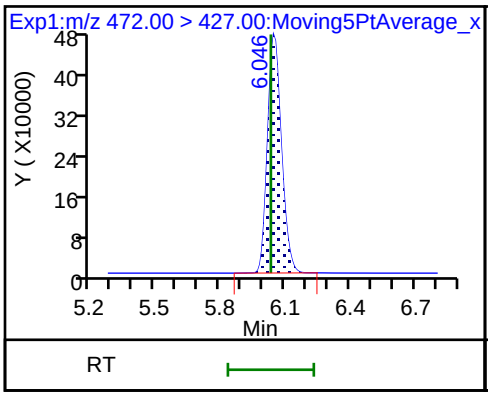
43 Perfluorooctanesulfonic acid



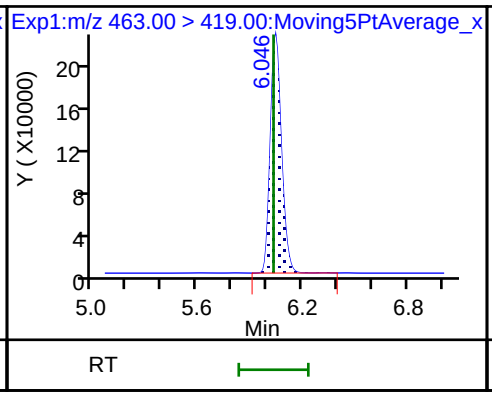
* 42 13C4 PFOS



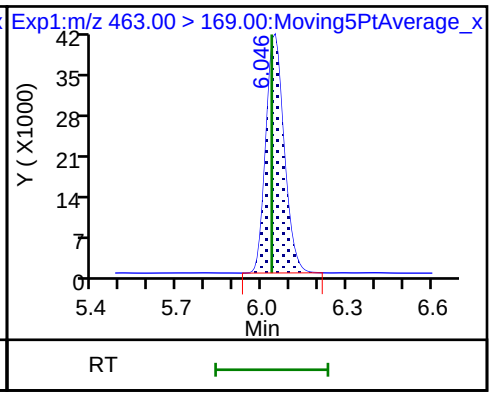
D 45 13C9 PFNA



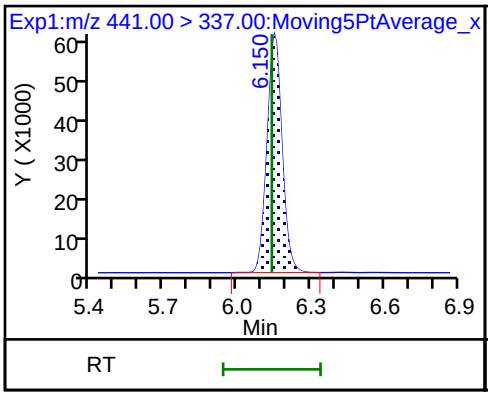
44 Perfluorononanoic acid



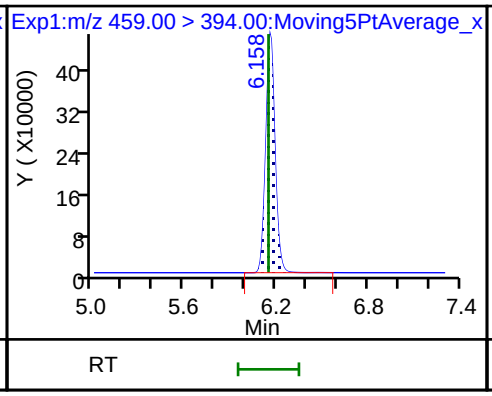
44 Perfluorononanoic acid



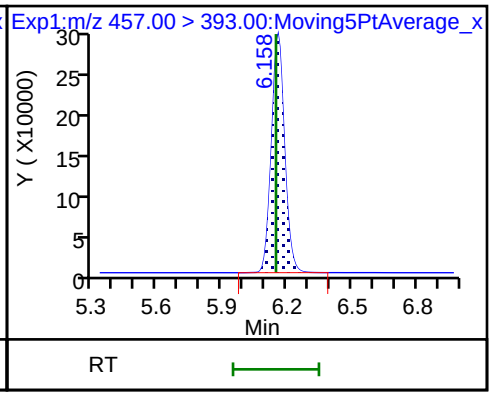
46 7:3 FTCA



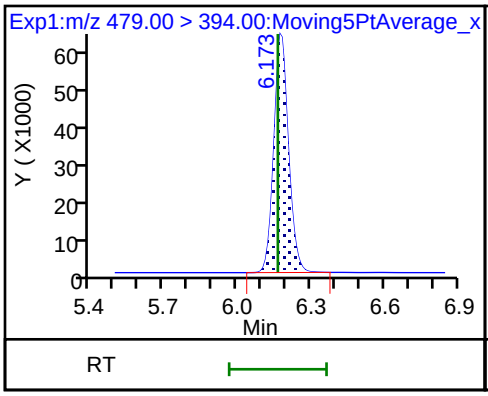
D 48 13C-8:2 FTUCA



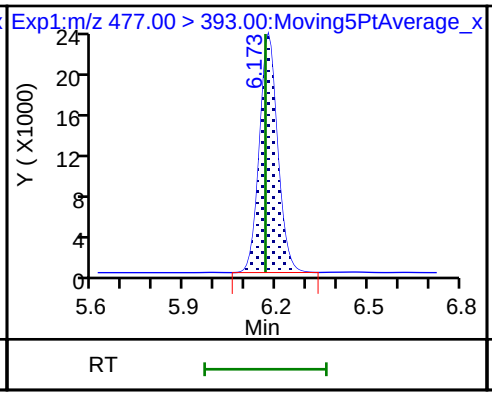
47 8:2 FTUCA



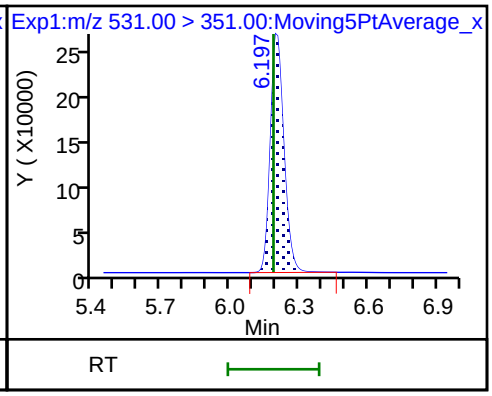
D 50 13C-8:2 FTCA



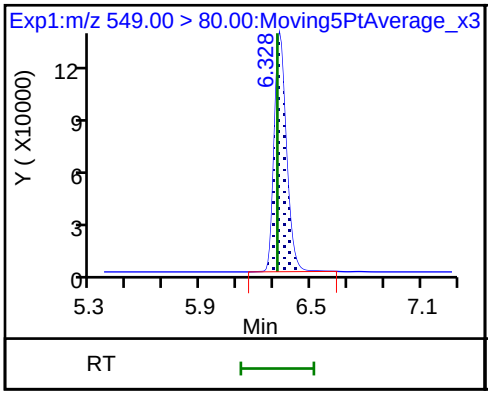
49 8:2 FTCA



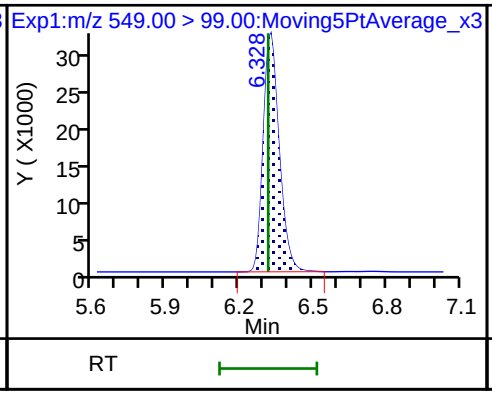
51 9ClFOS



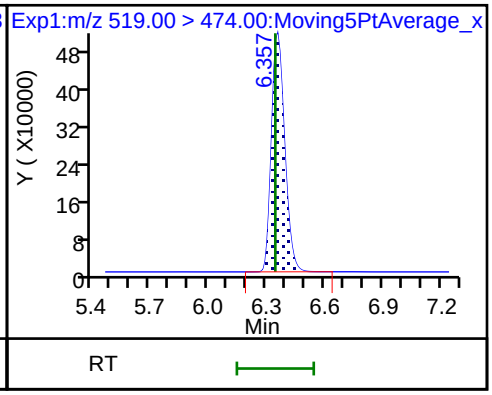
52 Perfluorononanesulfonic acid



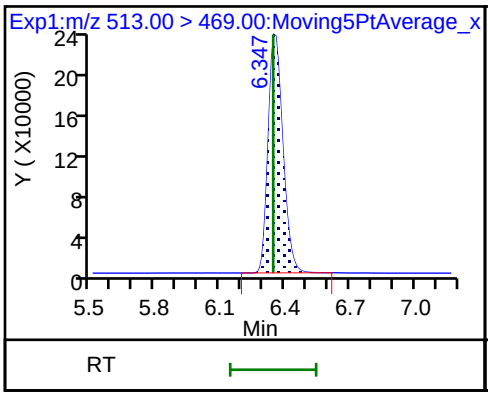
52 Perfluorononanesulfonic acid



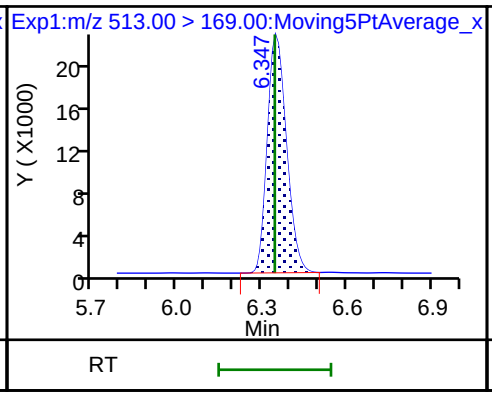
D 54 13C6 PFDA



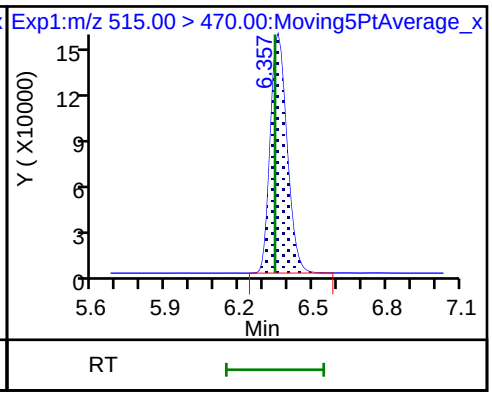
53 Perfluorodecanoic acid



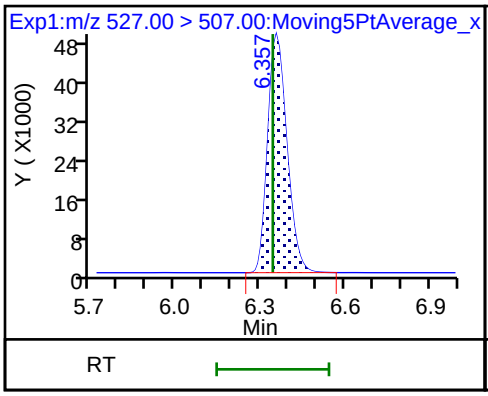
53 Perfluorodecanoic acid



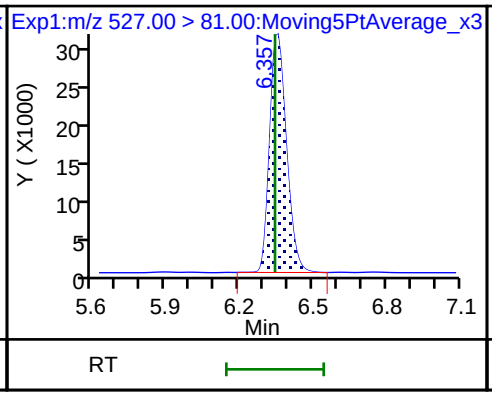
* 55 13C2 PFDA



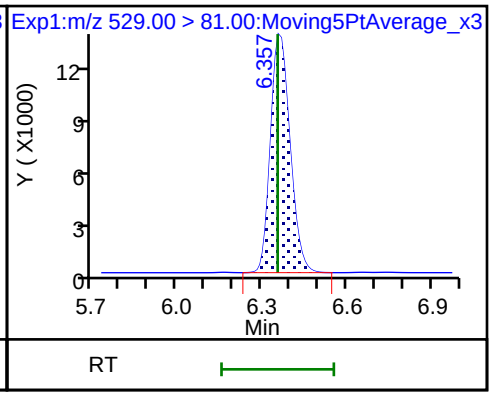
56 8:2 FTS



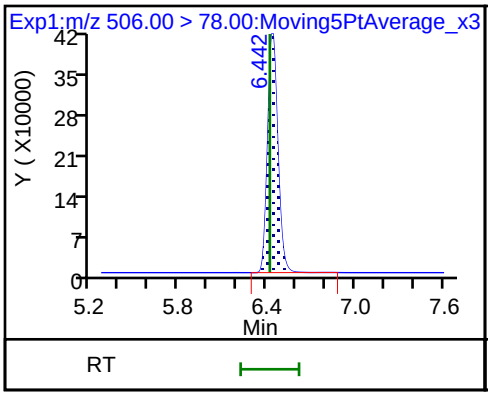
56 8:2 FTS



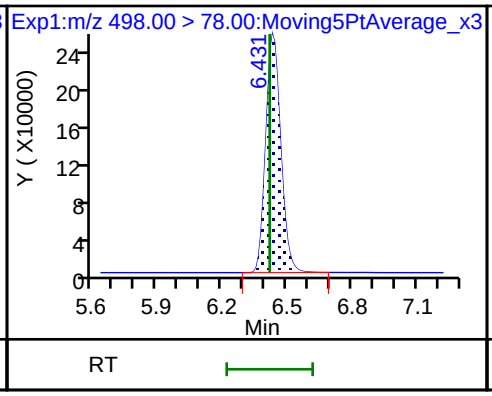
D 57 M2-8:2 FTS



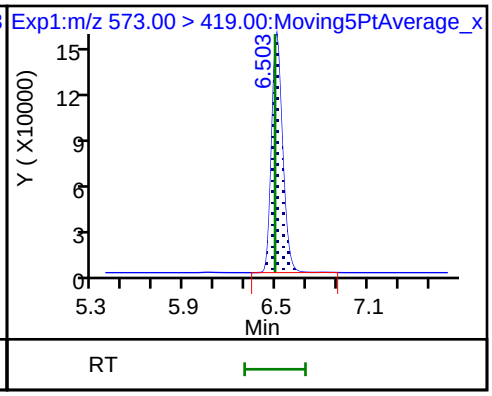
D 59 13C8 FOSA



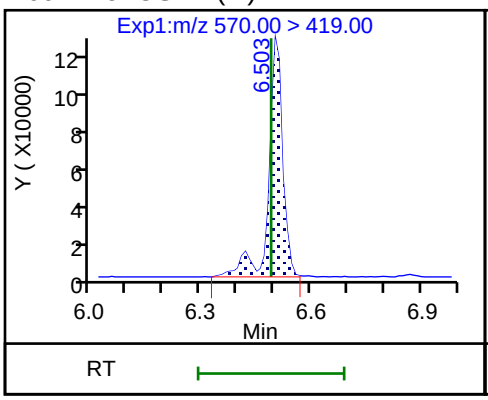
58 Perfluorooctanesulfonamide



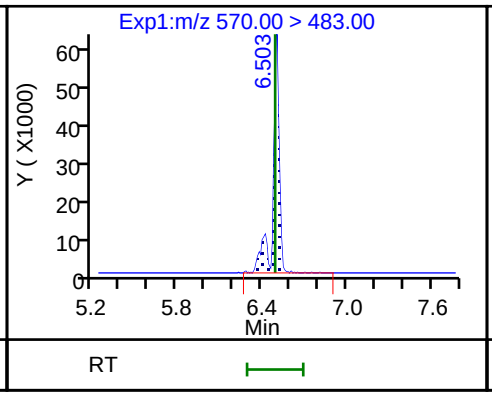
D 61 d3-NMeFOSAA



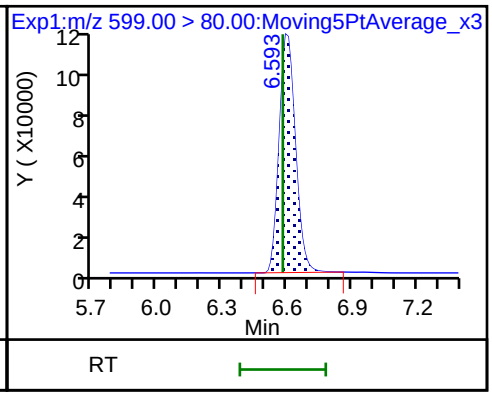
60 NMeFOSAA (M)



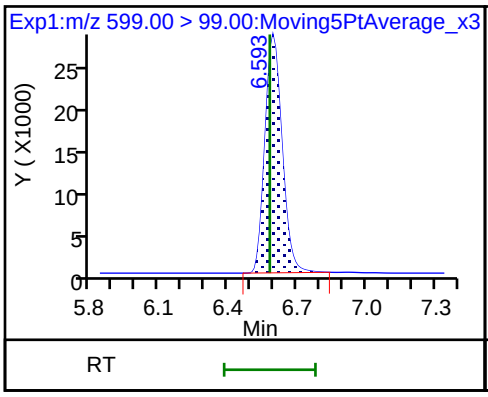
60 NMeFOSAA



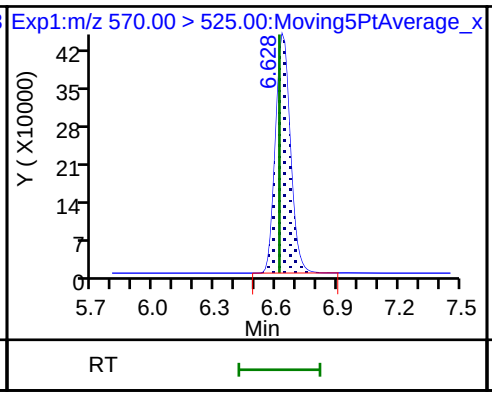
62 Perfluorodecanesulfonic acid



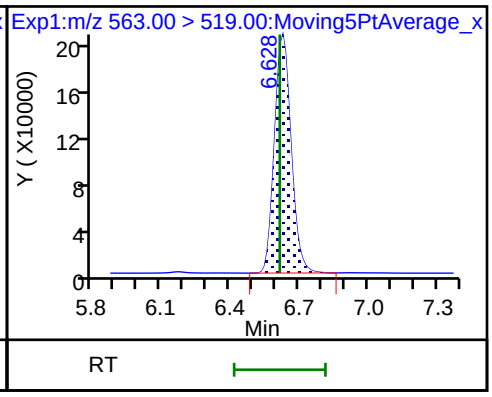
62 Perfluorodecanesulfonic acid



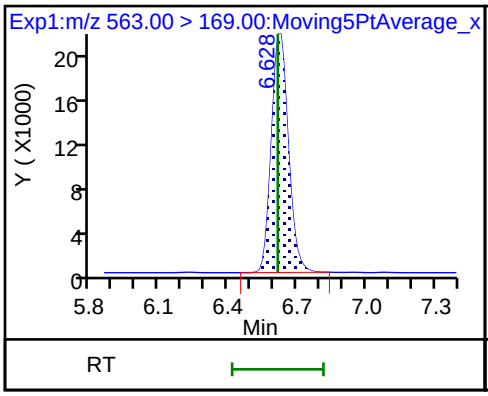
D 65 13C7 PFUnA



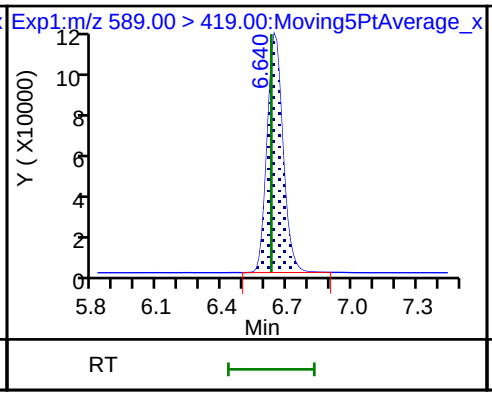
63 Perfluoroundecanoic acid



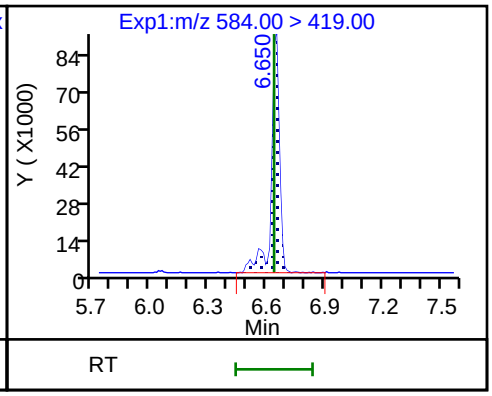
63 Perfluoroundecanoic acid



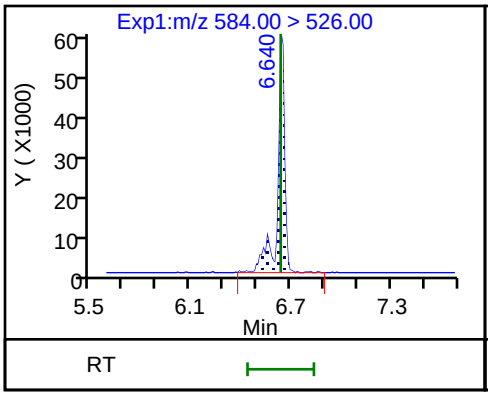
D 66 d5-NEtFOSAA



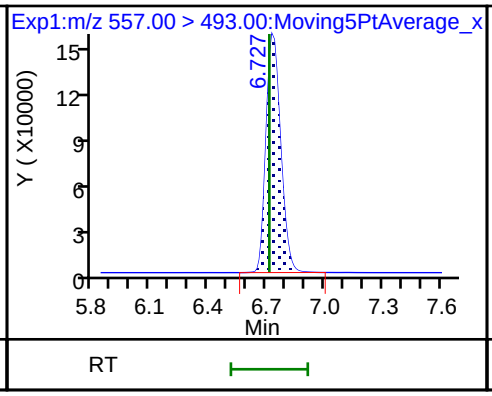
67 NEtFOSAA



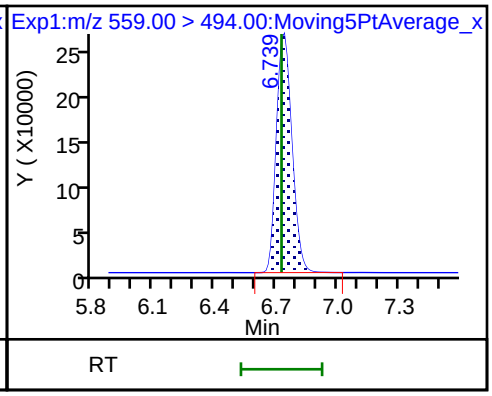
67 NEtFOSAA



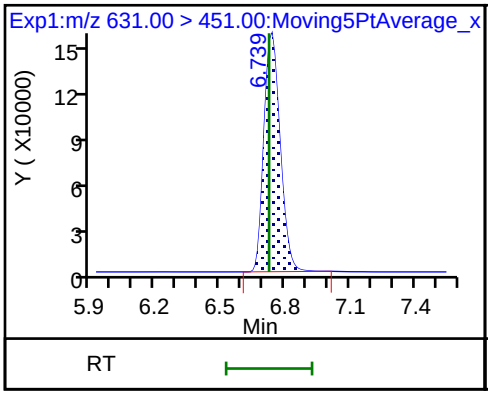
68 10:2 FTUCA



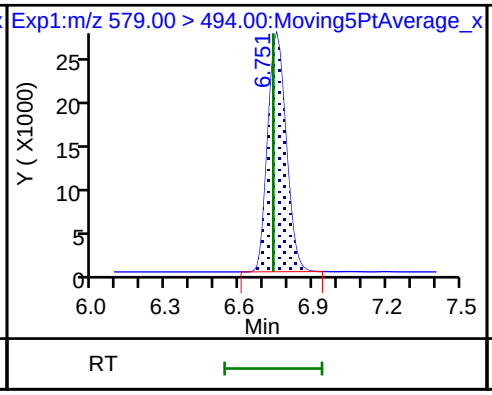
D 70 13C-10:2 FTUCA



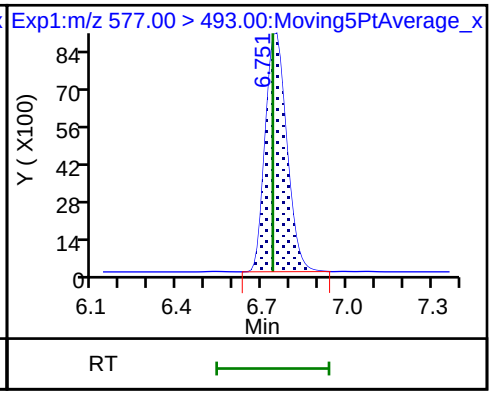
69 11ClFOS



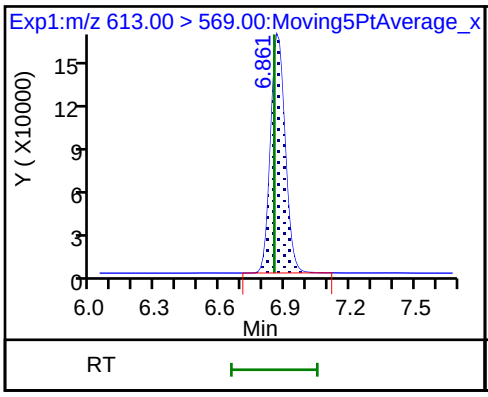
D 72 13C-10:2 FTCA



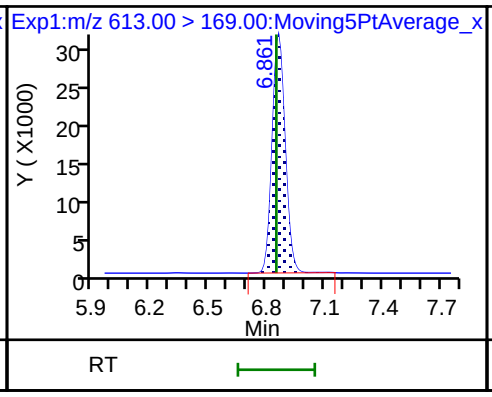
71 10:2 FTCA



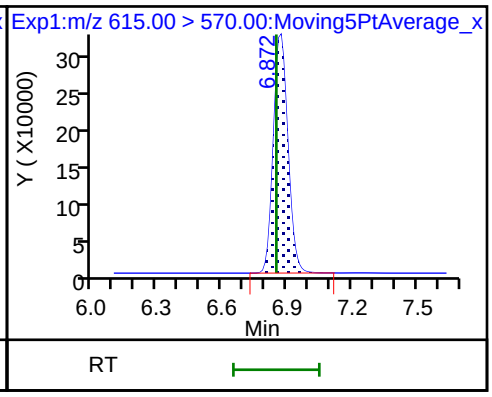
73 Perfluorododecanoic acid



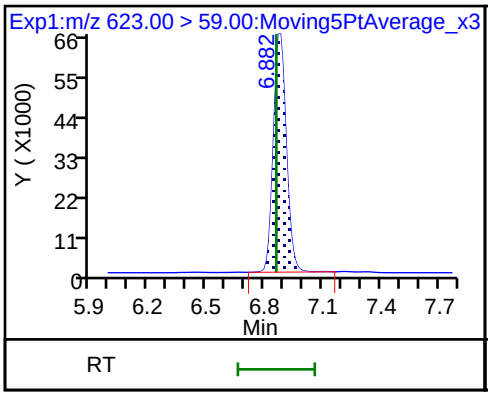
73 Perfluorododecanoic acid



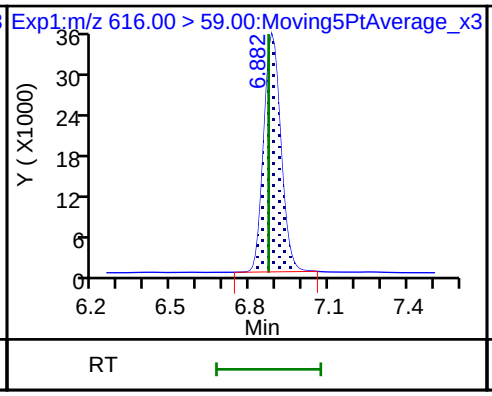
D 74 13C2-PFDoDA



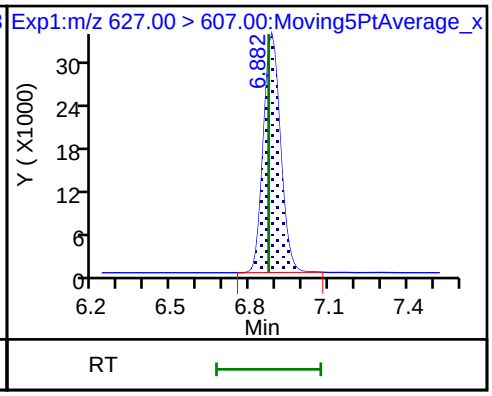
D 76 d7-N-MeFOSE-M



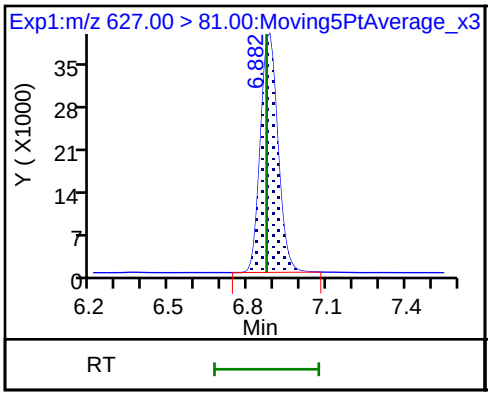
77 N-MeFOSE-M



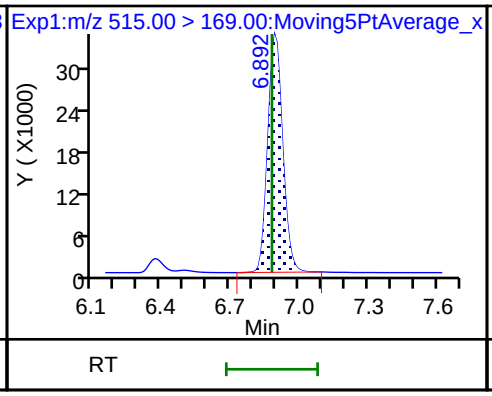
75 10:2 FTS



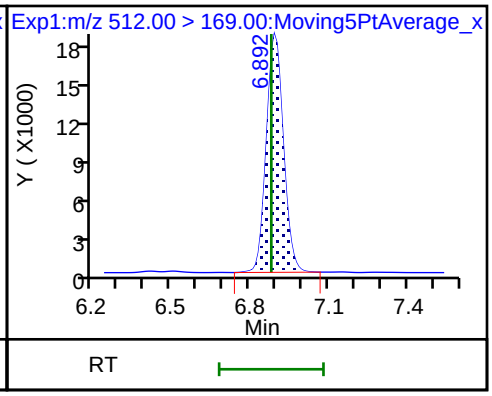
75 10:2 FTS



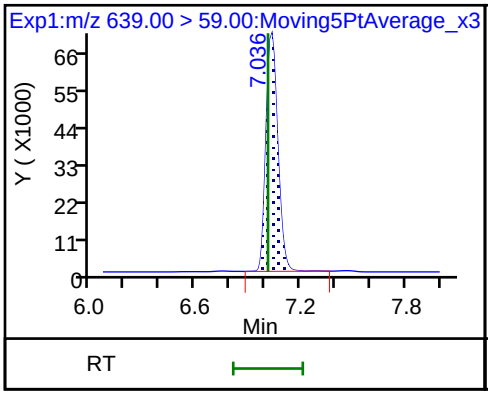
D 79 d3-NMePFOSA



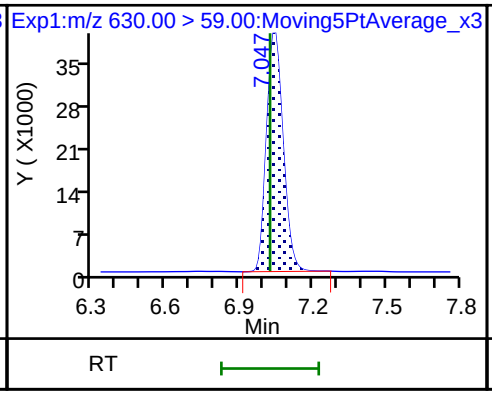
78 NMeFOSA



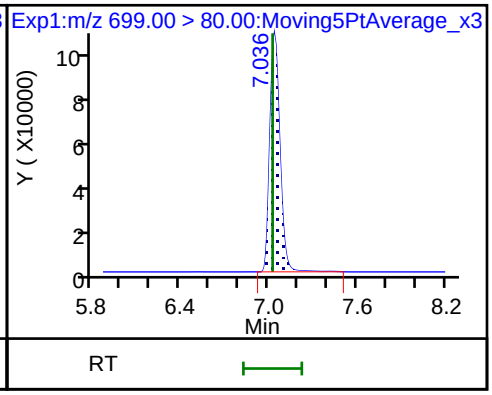
D 81 d9-N-EtFOSE-M



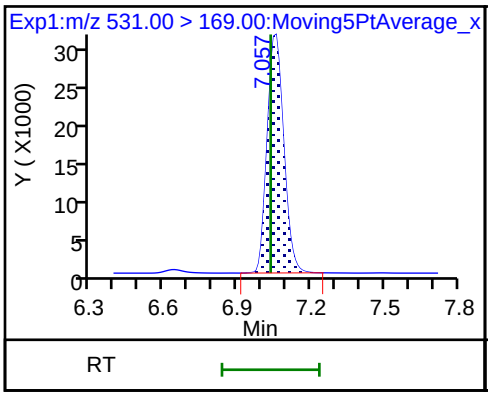
82 N-EtFOSE-M



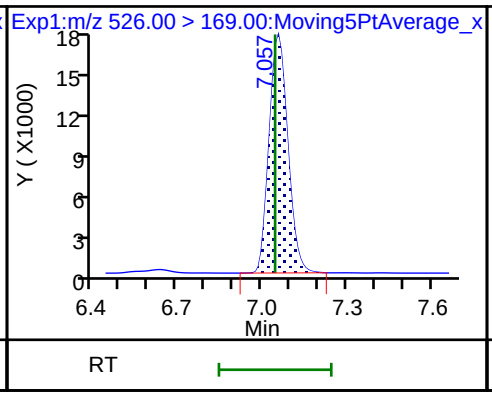
80 PFDoS



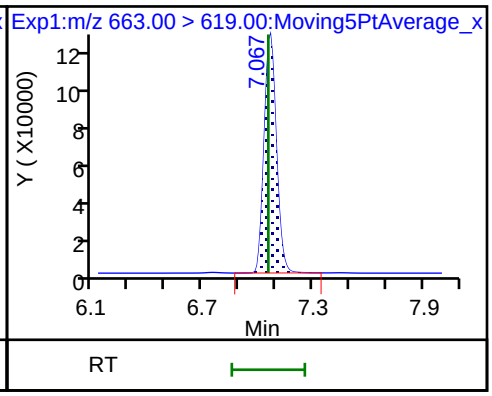
D 83 d5-NEtPFOSA



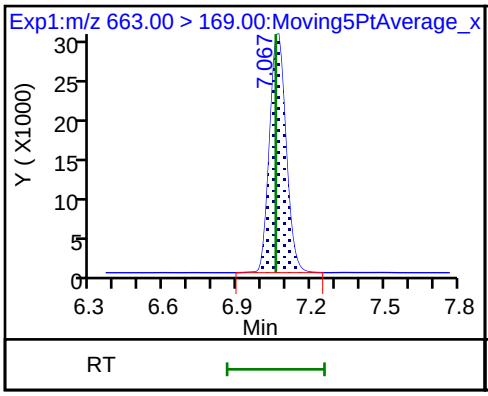
84 N-EtFOSA-M



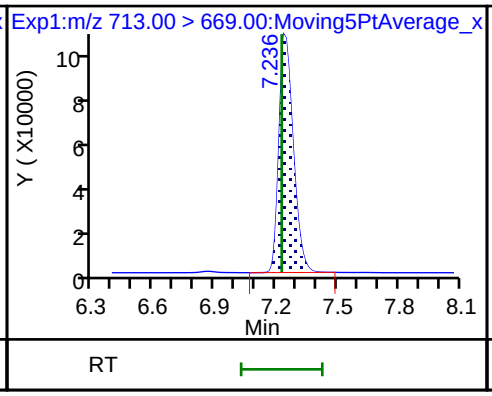
85 Perfluorotridecanoic acid



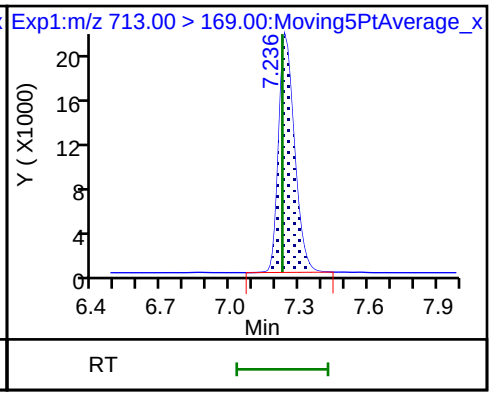
85 Perfluorotridecanoic acid



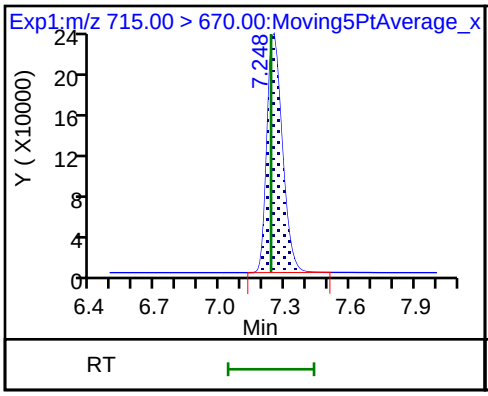
86 Perfluorotetradecanoic acid



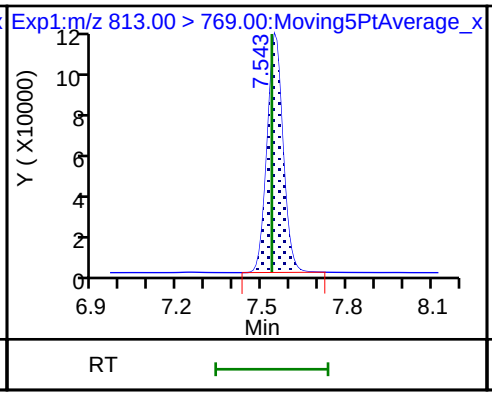
86 Perfluorotetradecanoic acid



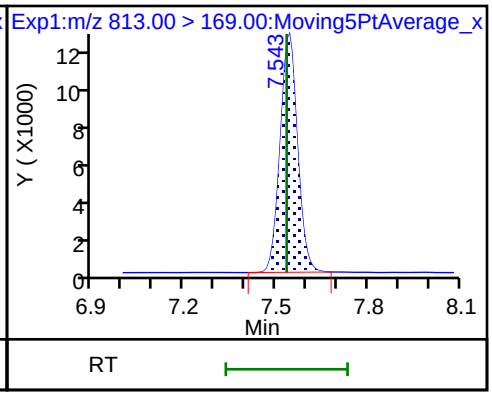
D 87 13C2 PFTeDA



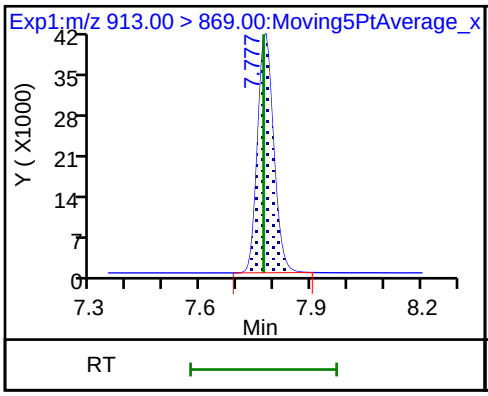
88 Perfluorohexadecanoic acid



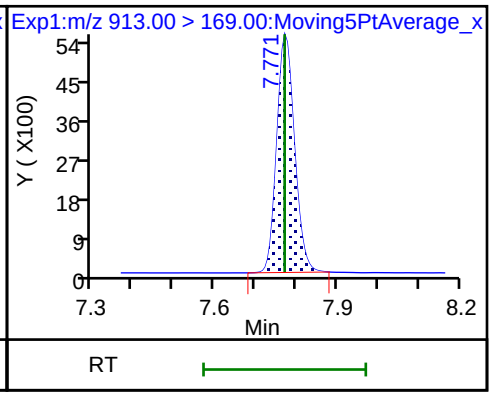
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

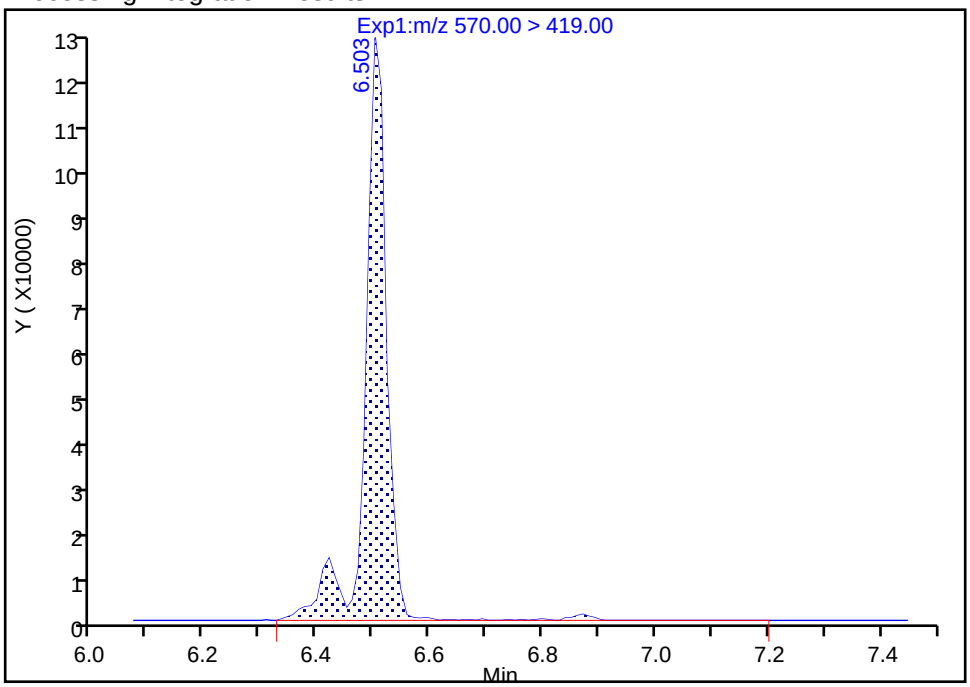
Data File:	\\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-62.d				
Injection Date:	23-Feb-2022 09:02:21	Instrument ID:	30733		
Lims ID:	LCS 410-226178/2-A				
Client ID:					
Operator ID:	US19_USR_INS20260	ALS Bottle#:	50	Worklist Smp#:	58
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30733_XList_2	Limit Group:	LC - PFC IDA		
Column:		Detector	EXP1		

60 NMeFOSAA, CAS: 2355-31-9

Signal: 1

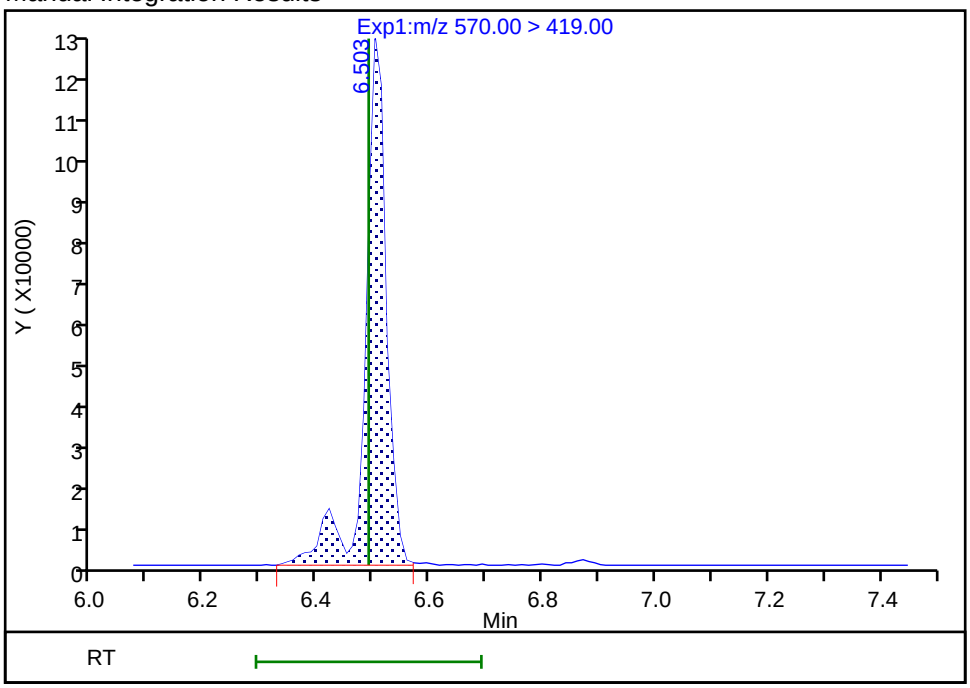
Processing Integration Results

RT: 6.50
Area: 322129
Amount: 5.032109
Amount Units: ng/ml



Manual Integration Results

RT: 6.50
Area: 316598
Amount: 4.945707
Amount Units: ng/ml



Reviewer: kruelleh, 23-Feb-2022 11:09:52

Audit Action: Manually Integrated Audit Reason: Isomers

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 410-228569/2-B
Matrix: Solid
Lab File ID: 22MAR02-14.d
Analysis Method: 537 IDA
Date Collected:
Extraction Method: SHAKE
Date Extracted: 03/01/2022 07:26
Sample wt/vol: 10.00(g)
Date Analyzed: 03/02/2022 10:49
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 4(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 229099
Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	2.81		0.060	0.020
375-85-9	Perfluoroheptanoic acid	2.94		0.060	0.020
335-67-1	Perfluorooctanoic acid	2.79		0.060	0.020
375-95-1	Perfluorononanoic acid	2.93		0.060	0.020
335-76-2	Perfluorodecanoic acid	2.89		0.060	0.020
72629-94-8	Perfluorotridecanoic acid	2.94		0.060	0.020
376-06-7	Perfluorotetradecanoic acid	3.05		0.060	0.020
375-73-5	Perfluorobutanesulfonic acid	2.61		0.20	0.040
355-46-4	Perfluorohexanesulfonic acid	2.57		0.060	0.020
1763-23-1	Perfluorooctanesulfonic acid	2.57		0.060	0.020
2991-50-6	NEtFOSAA	2.66		0.20	0.020
2355-31-9	NMeFOSAA	2.90		0.20	0.020
375-92-8	Perfluoroheptanesulfonic acid	2.59		0.060	0.020
335-77-3	Perfluorodecanesulfonic acid	2.25		0.060	0.020
754-91-6	Perfluorooctanesulfonamide	2.72		0.060	0.020
375-22-4	Perfluorobutanoic acid	2.79		0.20	0.080
2058-94-8	Perfluoroundecanoic acid	3.05		0.060	0.020
307-55-1	Perfluorododecanoic acid	2.95		0.060	0.020
27619-97-2	6:2 Fluorotelomer sulfonic acid	2.45		0.20	0.060
39108-34-4	8:2 Fluorotelomer sulfonic acid	2.23		0.30	0.060
2706-90-3	Perfluoropentanoic acid	2.46		0.060	0.020

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-228569/2-B

Matrix: Solid Lab File ID: 22MAR02-14.d

Analysis Method: 537 IDA Date Collected:

Extraction Method: SHAKE Date Extracted: 03/01/2022 07:26

Sample wt/vol: 10.00(g) Date Analyzed: 03/02/2022 10:49

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 4(uL) GC Column: Gemini C18 50mm ID: 3(mm)

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

Analysis Batch No.: 229099 Units: ng/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	104		15-200
STL02279	M2-6:2 FTS	106		10-200
STL02577	13C5 PFHxA	88		10-174
STL01892	13C4 PFHpA	87		10-178
STL01052	13C8 PFOA	92		26-159
STL02578	13C9 PFNA	88		26-165
STL02579	13C6 PFDA	89		26-161
STL02580	13C7 PFUnA	89		12-173
STL02703	13C2-PFDoDA	86		11-166
STL02116	13C2 PFTeDA	80		10-169
STL02337	13C3 PFBS	99		27-179
STL02581	13C3 PFHxS	91		24-171
STL01054	13C8 PFOS	96		41-154
STL02118	d3-NMeFOSAA	59		10-178
STL02117	d5-NEtFOSAA	71		10-193
STL01056	13C8 FOSA	67		14-163
STL00992	13C4 PFBA	88		28-153
STL01893	13C5 PFPeA	92		24-161

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-14.d
Lims ID: LCS 410-228569/2-B
Client ID:
Sample Type: LCS
Inject. Date: 02-Mar-2022 10:49:07 ALS Bottle#: 4 Worklist Smp#: 6
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: LCS 410-228569/2-B
Misc. Info.: Plate: 1 Rack: 1 410-0051478-006
Operator ID: US19_USR_INS20261 Instrument ID: 30728

Method: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 10:20:58 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617

First Level Reviewer: glicka Date: 02-Mar-2022 12:07:43
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
1 MTP										
175.00 > 97.00	1.532	1.518	0.014	0.400	581284	12.6		101	14859	
2 PPF Acid										
163.00 > 119.00	1.884	1.874	0.010	0.492	2869460	12.9		103	9755	
3 PFMOAA										
179.00 > 85.00	2.906	2.891	0.015	0.759	1919641	10.1		80.8	17772	
4 R-PSDA										
441.00 > 241.00	3.808	3.792	0.016	0.852	23205	1.30		10.4	1898	
5 R-EVE										
405.00 > 217.00	3.808	3.793	0.015	0.995	44981	1.04		8.3	3550	
D 6 13C4 PFBA										
217.00 > 172.00	3.828	3.816	0.012	1.000	4751790	8.76		87.6	102694	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.828	3.816	0.012	1.000	5703146	13.9		112	20623	
* 8 13C3-PFBA										
216.00 > 172.00	3.828	3.817	0.011		2510994	5.00			7832	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.828	3.817	0.011	0.856	114502	1.68		13.4	5719	
10 PMPA										
229.00 > 185.00	3.970	3.956	0.014	1.037	3373862	13.9		111	41058	
11 PFPrS										
249.00 > 99.00	4.035	4.020	0.015	1.054	1471026	13.5		118	74809	
12 NVHOS										
297.00 > 135.00	4.073	4.060	0.013	0.911	1595888	13.4		107	64202	
13 PFECA F										
229.00 > 85.00	4.093	4.082	0.011	1.069	6810998	15.1		121	18217	
14 PFO2HxA										
245.00 > 85.00	4.290	4.286	0.004	1.121	2532950	14.2		113	117069	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 3:3 FTCA										
241.00 > 177.00	4.416	4.403	0.013	1.000	140590	4.38		35.0	8752	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.416	4.404	0.012	1.000	5803446	12.3		98.3	31781	
D 17 13C5 PFPeA										
268.00 > 223.00	4.416	4.404	0.012	1.153	4066108	9.25		92.5	129748	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.471	4.460	0.011	1.000	5578072	13.1	Target=3.14	118	85032	
299.00 > 99.00	4.471	4.460	0.011	1.000	1792541		3.11(1.57-4.71)		62308	
D 19 13C3 PFBS										
302.00 > 80.00	4.471	4.462	0.009	1.168	4108481	9.24		99.4	288592	
20 PEPA										
279.00 > 235.00	4.527	4.517	0.010	1.182	1454179	17.2		137	21219	
21 PFECA A										
279.00 > 85.00	4.556	4.543	0.013	1.019	5607119	12.5		99.7	286449	
22 PES										
315.00 > 135.00	4.654	4.638	0.016	1.041	13879645	11.0		98.7	762795	
23 PFECA B										
201.00 > 85.00	4.786	4.771	0.015	1.070	8096829	11.7	Target=1.81	93.4	78572	
295.00 > 201.00	4.786	4.771	0.015	1.070	4583760		1.77(0.90-2.71)		235856	
24 4:2 FTS										
327.00 > 307.00	4.815	4.803	0.012	1.000	2907760	12.1	Target=1.33	103	198688	
327.00 > 81.00	4.815	4.803	0.012	1.000	1937696		1.50(0.66-1.99)		78983	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.815	4.806	0.009	0.854	848651	11.2		120	42220	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.855	4.843	0.012	1.000	5963380	14.0	Target=12.64	112	89589	
313.00 > 119.00	4.855	4.843	0.012	1.000	458491		13.01(6.32-18.96)		14960	
D 27 13C5 PFHxA										
318.00 > 273.00	4.855	4.846	0.009	0.861	5484159	8.80		88.0	133705	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.875	4.863	0.012	1.090	5220897	12.9	Target=3.66	110	255791	
349.00 > 99.00	4.875	4.863	0.012	1.090	1391177		3.75(1.83-5.49)		91195	
29 PFO3OA										
311.00 > 85.00	4.915	4.903	0.012	1.284	2851045	13.0		104	183653	
30 HFPO-DA										
329.00 > 285.00	4.988	4.978	0.010	0.998	2242047	13.7		110	55784	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.998	4.983	0.015	0.886	1320666	9.03		90.3	87817	
32 Hydro-EVE Acid										
427.00 > 283.00	5.211	5.201	0.010	1.361	10055189	15.4		123	8784	
33 R-PSDCA										
397.00 > 217.00	5.222	5.209	0.013	1.168	12522422	11.5		92.0	581921	
34 Hydro-PS Acid										
463.00 > 263.00	5.276	5.246	0.030	1.180	10299514	13.9		112	246109	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.265	5.254	0.011	1.000	5056130	12.9	Target=3.57	113	11181	
399.00 > 99.00	5.265	5.254	0.011	1.000	1409274		3.59(1.78-5.35)		3005	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.265	5.254	0.011	1.000	7834244	14.7	Target=3.54	118	241877	
363.00 > 169.00	5.265	5.254	0.011	1.000	2202049		3.56(1.77-5.31)		80678	
D 37 13C3 PFHxS										
402.00 > 80.00	5.265	5.254	0.011	0.934	3830035	8.65		91.5	179455	
D 38 13C4 PFHpA										
367.00 > 322.00	5.265	5.255	0.010	0.934	5809283	8.66		86.6	179400	
39 DONA										
377.00 > 251.00	5.309	5.303	0.006	1.008	9219109	13.7		116	291154	
40 PFECA G										
379.00 > 185.00	5.330	5.322	0.008	1.392	9691390	12.6		101	467571	
41 5:3 FTCA										
341.00 > 237.00	5.350	5.338	0.012	1.016	444105	4.47	Target=3.04	35.8	17254	
341.00 > 217.00	5.350	5.338	0.012	1.016	154897		2.87(1.52-4.55)		10011	
42 6:2 FTUCA										
357.00 > 293.00	5.369	5.359	0.010	1.000	4222999	13.1		105	85836	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.369	5.361	0.008	0.952	2596064	7.09		70.9	76672	
44 6:2 FTCA										
377.00 > 293.00	5.386	5.378	0.008	1.000	430204	13.3		106	17995	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.386	5.379	0.007	0.955	313084	5.43		54.3	16554	
46 PFO4DA										
377.00 > 85.00	5.445	5.435	0.010	1.422	3863255	14.4		115	1138	
47 PS Acid										M
443.00 > 147.00	5.489	5.479	0.010	1.228	12904	0.0492		0.4	873	M
48 EVE Acid										
407.00 > 263.00	5.508	5.500	0.008	1.439	38563	0.0574		0.5	2471	
49 PFECHS										
461.00 > 381.00	5.585	5.569	0.016	1.061	7086835	13.4	Target=1.56	116	492004	
461.00 > 99.00	5.576	5.569	0.007	1.059	4433474		1.60(0.78-2.34)		230818	
50 6:2 FTS										
427.00 > 407.00	5.620	5.613	0.007	0.998	1280536	12.2	Target=1.19	103	85093	
427.00 > 81.00	5.620	5.613	0.007	0.998	999127		1.28(0.60-1.79)		51009	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.629	5.614	0.015	0.998	272925	10.1		106	18412	
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.629	5.618	0.011	1.069	5037743	12.9	Target=3.73	109	344704	
449.00 > 99.00	5.629	5.618	0.011	1.069	1242136		4.06(1.87-5.60)		63651	
53 Perfluorooctanoic acid										
413.00 > 369.00	5.638	5.630	0.008	1.000	6274404	13.9	Target=2.20	111	419832	
413.00 > 169.00	5.638	5.630	0.008	1.000	2809743		2.23(1.10-3.30)		983708	
D 54 13C8 PFOA										
421.00 > 376.00	5.638	5.631	0.007	1.000	6033269	9.18		91.8	201266	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 55 13C2 PFOA										
415.00 > 370.00	5.638	5.631	0.007		2684132	5.00			181115	
56 TAF										
443.00 > 85.00	5.889	5.879	0.010	1.538	3407330	13.4		108	178789	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.971	5.954	0.016	1.001	5665751	12.8	Target=4.38	111	5059	
499.00 > 99.00	5.962	5.954	0.008	1.000	1222578		4.63(2.19-6.58)		1691	
* 59 13C4 PFOS										
503.00 > 80.00	5.962	5.955	0.007		2334310	4.78			99705	
D 58 13C8 PFOS										
507.00 > 80.00	5.962	5.955	0.007	1.000	4318405	9.13		95.5	51251	
61 Perfluorononanoic acid										
463.00 > 419.00	5.979	5.973	0.006	1.000	5223022	14.7	Target=3.95	117	222303	
463.00 > 169.00	5.979	5.973	0.006	1.000	1327516		3.93(1.97-5.92)		96047	
D 60 13C9 PFNA										
472.00 > 427.00	5.979	5.975	0.004	1.003	4087114	8.83		88.3	213933	
62 7:3 FTCA										
441.00 > 337.00	6.089	6.077	0.012	1.130	508794	6.69		53.5	34023	
63 8:2 FTUCA										
457.00 > 393.00	6.089	6.084	0.005	0.998	3585229	14.1		113	241673	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.099	6.085	0.014	0.970	2694759	7.37		73.7	89752	
65 8:2 FTCA										
477.00 > 393.00	6.109	6.099	0.010	1.000	320342	13.4		108	21899	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.109	6.102	0.007	0.972	238763	5.80		58.0	16284	
67 9ClFOS										
531.00 > 351.00	6.138	6.130	0.008	1.030	8326264	13.1		113	80992	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.261	6.254	0.007	1.050	5685908	13.0	Target=4.33	108	413437	
549.00 > 99.00	6.261	6.254	0.007	1.050	1338923		4.25(2.16-6.49)		74379	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.287	6.279	0.008	1.000	6161448	14.5	Target=7.98	116	164515	
513.00 > 169.00	6.287	6.279	0.008	1.000	759087		8.12(3.99-11.97)		40580	
D 71 13C6 PFDA										
519.00 > 474.00	6.287	6.282	0.005	1.000	5066291	8.85		88.5	355300	
* 70 13C2 PFDA										
515.00 > 470.00	6.287	6.282	0.005		2998466	5.00			211527	
72 8:2 FTS										
527.00 > 507.00	6.295	6.282	0.013	1.000	975741	11.2	Target=1.01	93.3	68312	
527.00 > 81.00	6.287	6.282	0.005	0.999	998373		0.98(0.50-1.51)		41691	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.295	6.285	0.010	1.001	147188	9.92		104	10294	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.371	6.371	0.0	0.998	6721124	13.6		109	430872	
D 74 13C8 FOSA										
506.00 > 78.00	6.382	6.375	0.007	1.015	4978064	6.74		67.4	87448	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.433	6.428	0.005	1.023	943511	5.86		58.6	10759	
76 NMeFOSAA										
570.00 > 419.00	6.443	6.429	0.014	1.002	1205203	14.5	Target=1.69	116	1613	
570.00 > 483.00	6.433	6.429	0.004	1.000	753178		1.60(0.85-2.54)		871	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.536	6.522	0.014	1.096	4840223	11.2	Target=4.28	93.2	177790	
599.00 > 99.00	6.524	6.522	0.002	1.094	1115501		4.34(2.14-6.42)		69426	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.560	6.550	0.010	1.000	6156218	15.3	Target=7.28	122	159573	
563.00 > 169.00	6.560	6.550	0.010	1.000	776675		7.93(3.64-10.92)		46222	
D 80 13C7 PFUnA										
570.00 > 525.00	6.560	6.557	0.003	1.043	5417372	8.94		89.4	242904	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.571	6.569	0.002	1.045	810767	7.06		70.6	29188	
82 NEtFOSAA										
584.00 > 419.00	6.583	6.570	0.013	1.002	1036836	13.3	Target=1.63	107	327334	
584.00 > 526.00	6.571	6.570	0.001	1.000	570172		1.82(0.82-2.45)		969	
83 10:2 FTUCA										
557.00 > 493.00	6.663	6.654	0.009	1.000	2475918	12.6		101	90636	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.663	6.660	0.003	1.060	2049132	6.37		63.7	93409	
84 11ClFOS										
631.00 > 451.00	6.663	6.660	0.003	1.118	5570607	11.9		102	344580	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.684	6.670	0.014	1.063	152405	5.09		50.9	9205	
86 10:2 FTCA										
577.00 > 493.00	6.673	6.670	0.003	0.998	203068	13.7		110	12269	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.801	6.787	0.014	1.000	5325048	14.8	Target=4.76	118	140909	
613.00 > 169.00	6.801	6.787	0.014	1.000	1091309		4.88(2.38-7.14)		49561	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.801	6.796	0.005	1.082	3957613	8.57		85.7	246365	
90 10:2 FTS										
627.00 > 607.00	6.822	6.810	0.012	1.084	789690	12.2	Target=0.75	101	49730	
627.00 > 81.00	6.811	6.810	0.001	1.082	1035095		0.76(0.38-1.13)		65174	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.811	6.813	-0.002	1.083	806795	6.71		67.1	9015	
92 N-MeFOSE-M										
616.00 > 59.00	6.822	6.820	0.002	1.002	1076224	13.1		105	22747	
94 NMeFOSA										
512.00 > 169.00	6.832	6.829	0.003	1.000	170652	13.6		109	5417	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.832	6.829	0.003	1.087	128244	1.68		16.8	3603	
95 PFDoS										
699.00 > 80.00	6.979	6.967	0.012	1.171	4868340	12.6		104	251988	

Report Date: 02-Mar-2022 12:25:11 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-14.d
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.979	6.973	0.006	1.110	875156	6.43		64.3	14853	
97 N-EtFOSE-M										
630.00 > 59.00	6.979	6.981	-0.002	1.000	1193420	13.5		108	34920	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.997	6.995	0.002	1.113	120997	1.70		17.0	4129	
100 N-EtFOSA-M										
526.00 > 169.00	6.997	6.996	0.001	1.000	170916	13.5		108	5772	
99 Perfluorotridecanoic acid										
663.00 > 619.00	7.007	6.996	0.011	1.030	4605195	14.7	Target=4.11	118	134560	
663.00 > 169.00	7.007	6.996	0.011	1.030	1089287		4.23(2.06-6.17)		55364	
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.187	7.181	0.006	0.999	3990458	15.3	Target=4.34	122	90410	
713.00 > 169.00	7.187	7.181	0.006	0.999	905400		4.41(2.17-6.50)		46757	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.196	7.184	0.012	1.145	2962045	7.98		79.8	99756	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.489	7.483	0.006	1.041	2563883	14.9	Target=5.44	119	75201	
813.00 > 169.00	7.489	7.483	0.006	1.041	475471		5.39(2.72-8.16)		19643	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.722	7.717	0.005	1.073	1859342	15.0	Target=6.37	120	59655	
913.00 > 169.00	7.722	7.717	0.005	1.073	294518		6.31(3.18-9.55)		16962	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFC_IS_MOD_00279 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Mar-2022 12:25:11 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-14.d

Injection Date: 02-Mar-2022 10:49:07 Instrument ID: 30728

Lims ID: LCS 410-228569/2-B

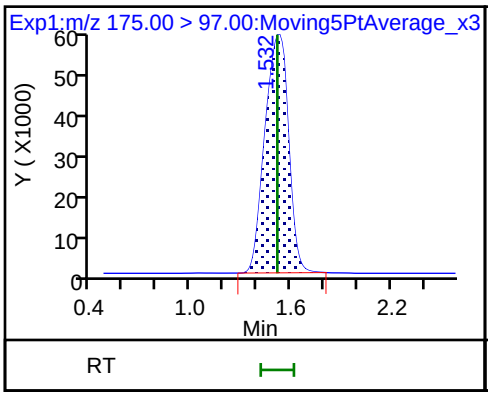
Client ID:

Operator ID: US19_USR_INS20261 ALS Bottle#: 4 Worklist Smp#: 6

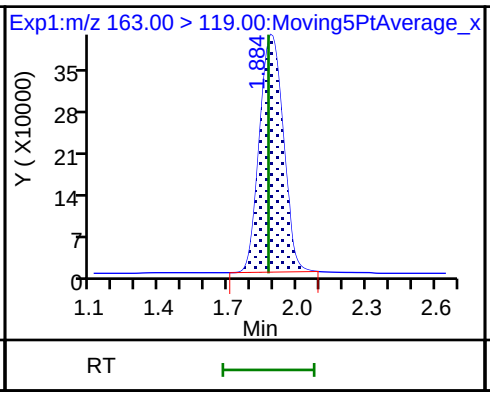
Injection Vol: 4.0 ul Dil. Factor: 1.0000

Method: PFAS_30728_XList Limit Group: LC - PFC IDA

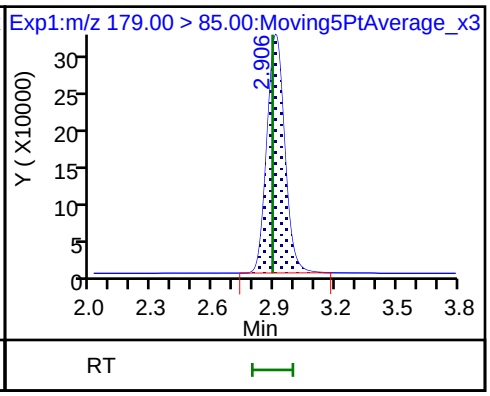
1 MTP



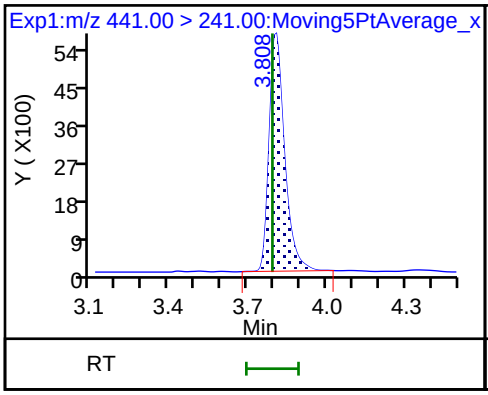
2 PPF Acid



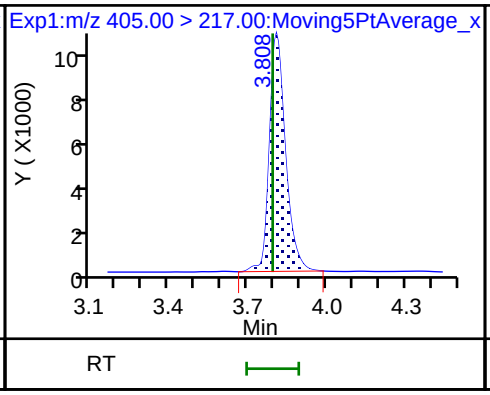
3 PFMOAA



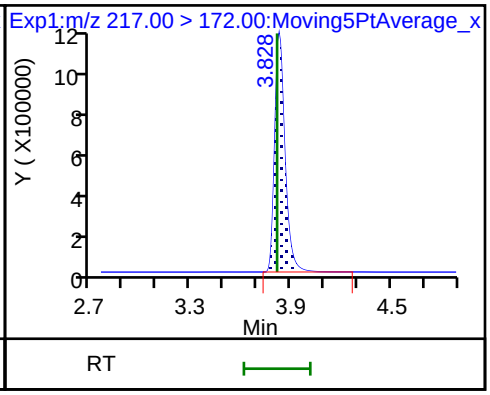
4 R-PSDA



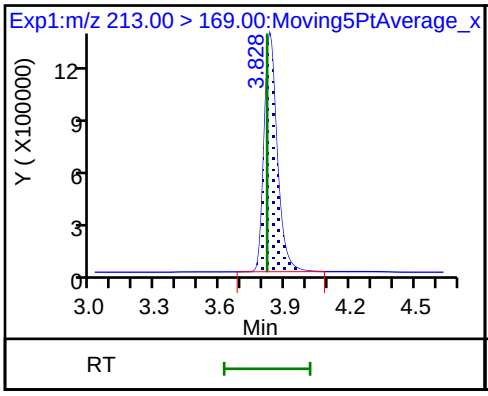
5 R-EVE



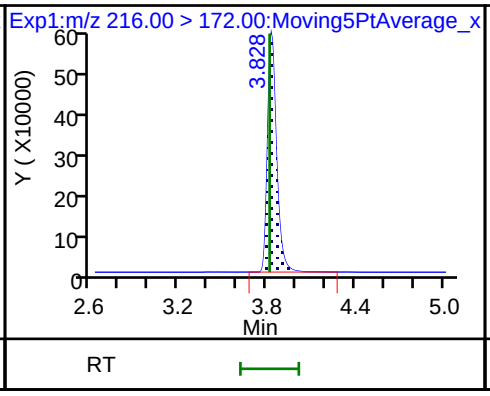
D 6 13C4 PFBA



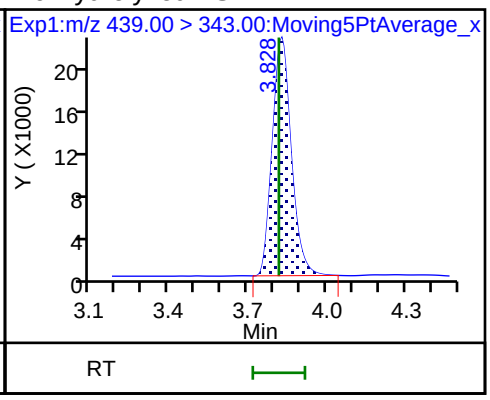
7 Perfluorobutanoic acid



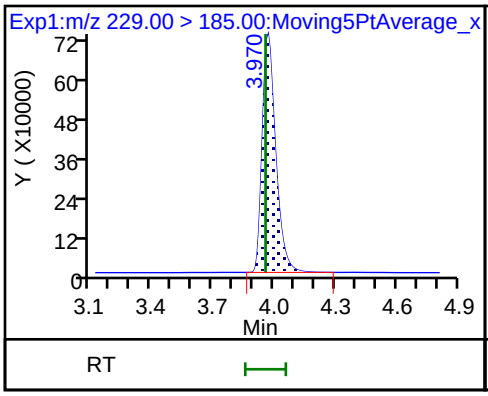
* 8 13C3-PFBA



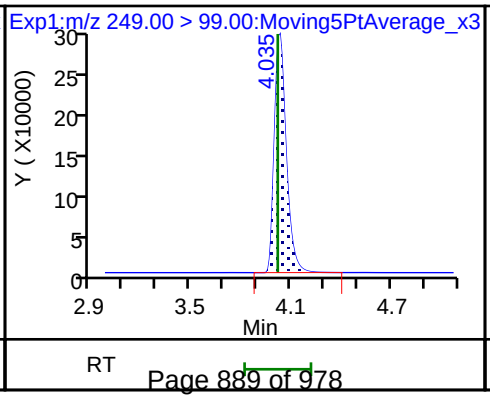
9 Hydrolyzed PSDA



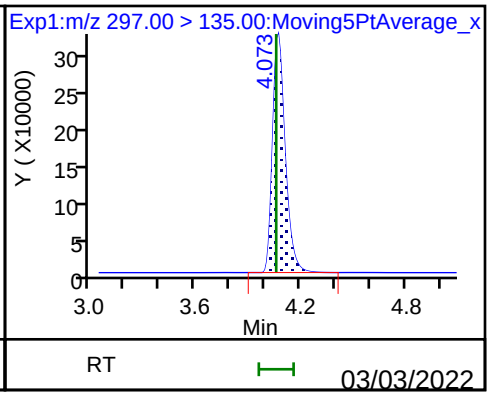
10 PMPA



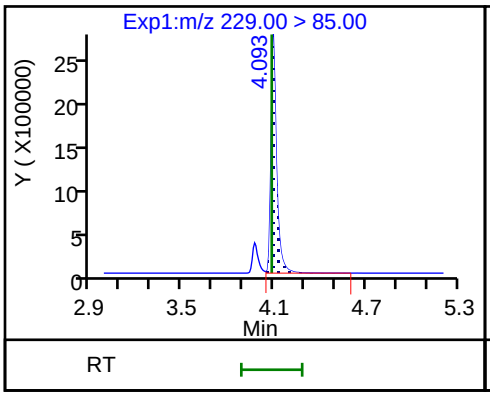
11 PFPrS



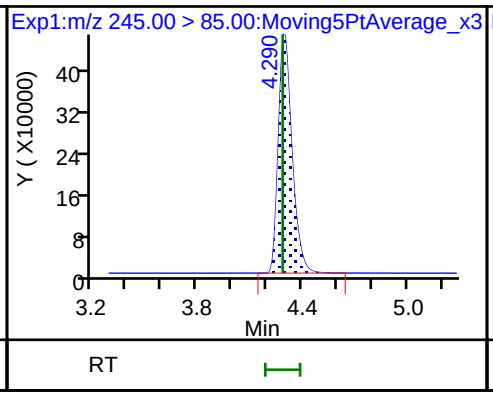
12 NVHOS



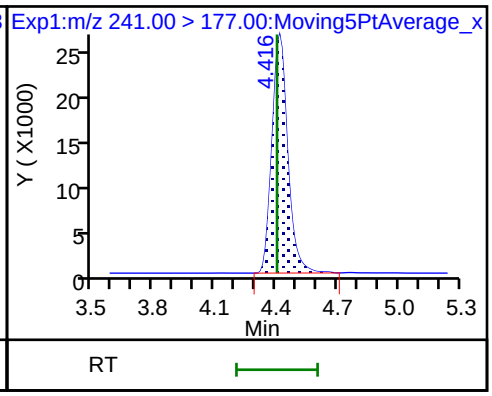
13 PFECA F



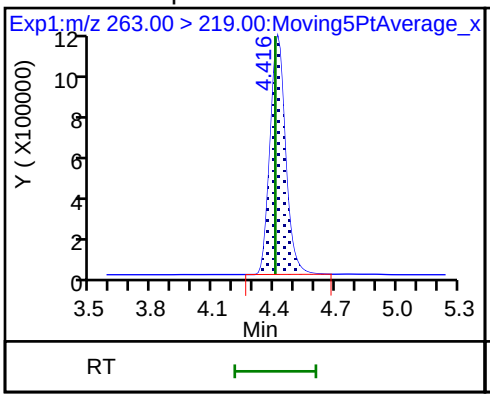
14 PFO2HxA



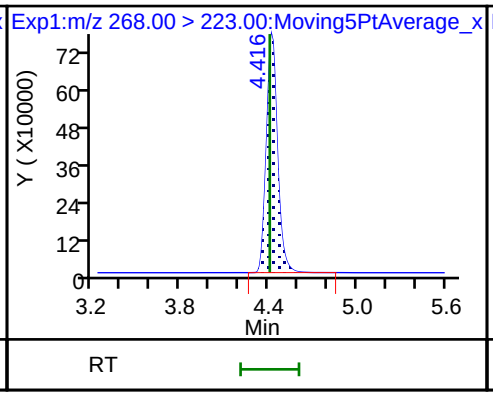
15 3:3 FTCA



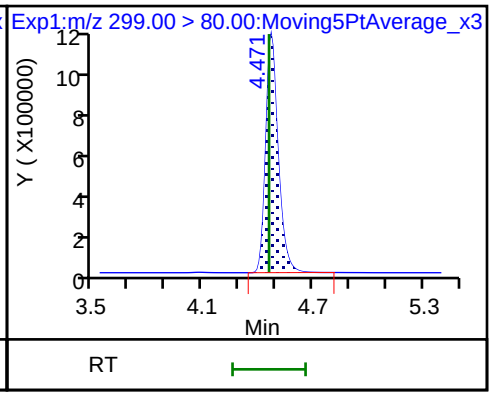
16 Perfluoropentanoic acid



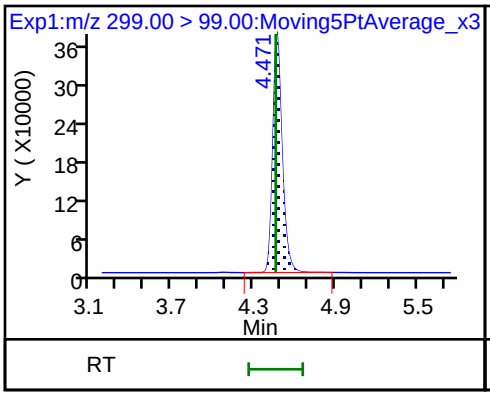
D 17 13C5 PFPeA



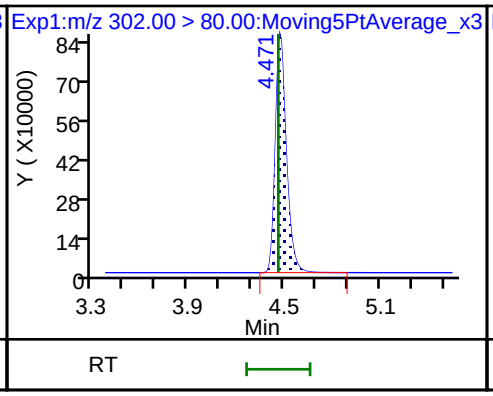
18 Perfluorobutanesulfonic acid



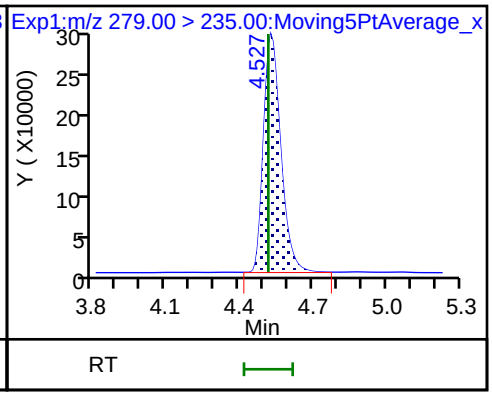
18 Perfluorobutanesulfonic acid



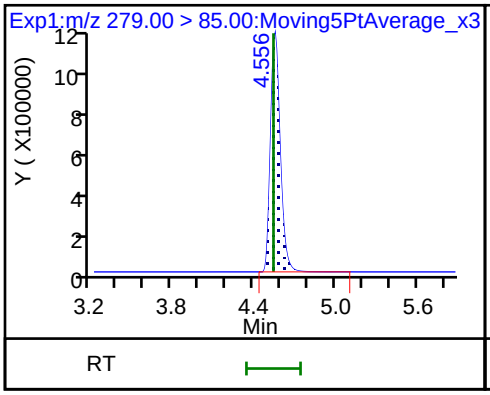
D 19 13C3 PFBS



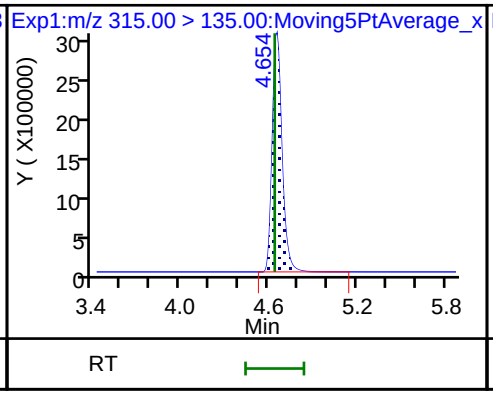
20 PEPA



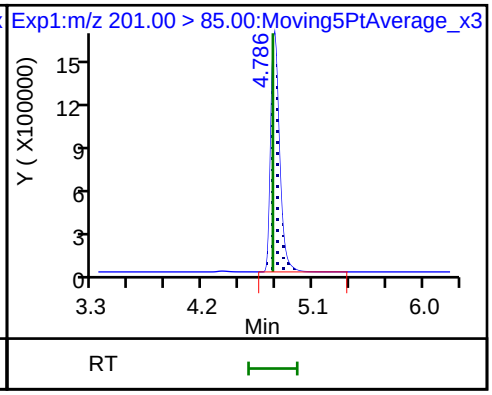
21 PFECA A



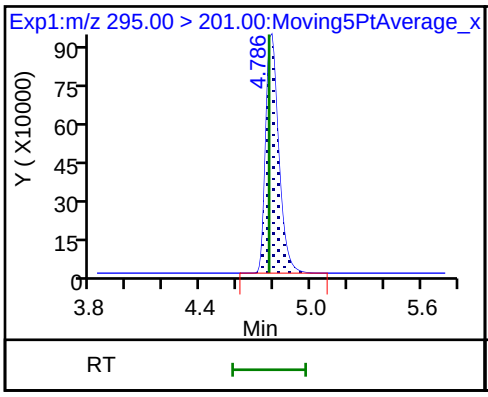
22 PES



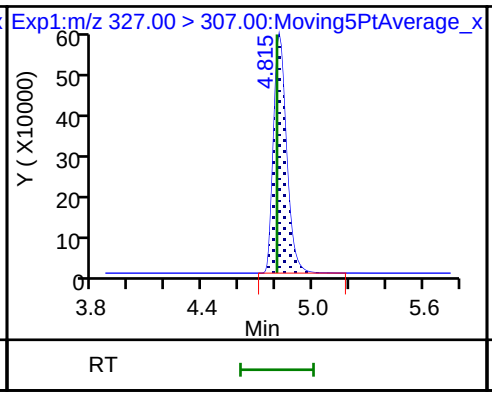
23 PFECA B



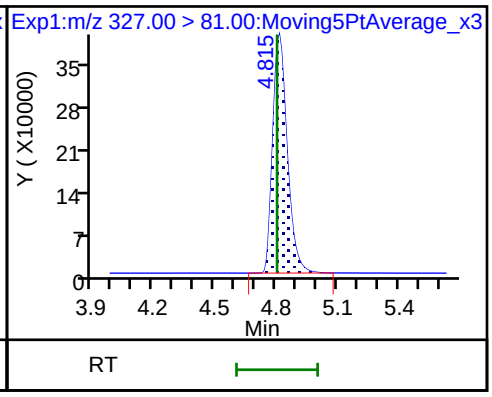
23 PFECA B



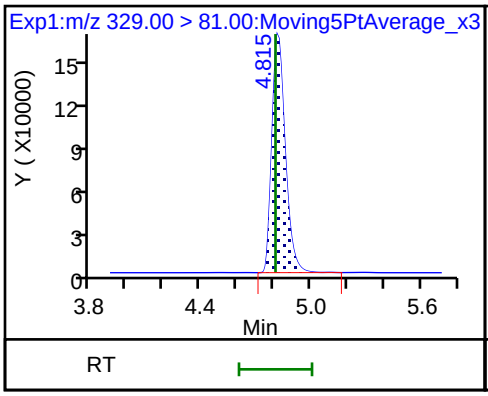
24 4:2 FTS



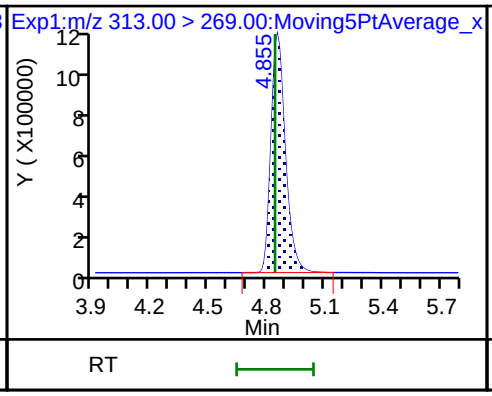
24 4:2 FTS



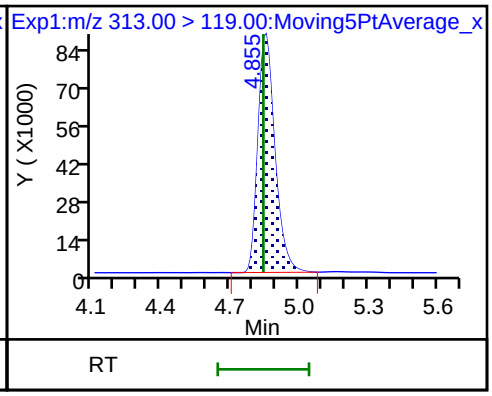
D 25 M2-4:2 FTS



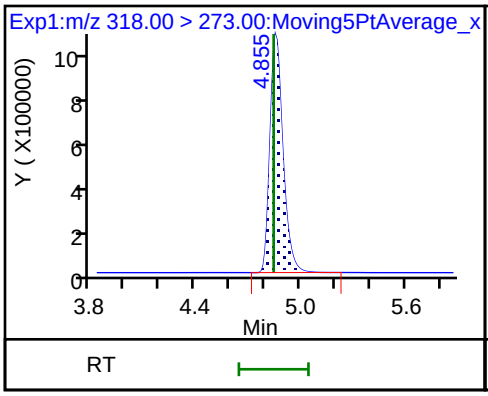
26 Perfluorohexanoic acid



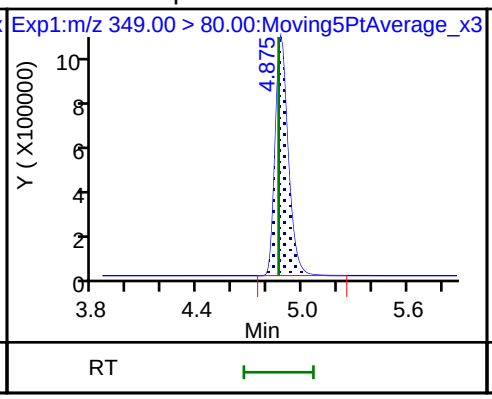
26 Perfluorohexanoic acid



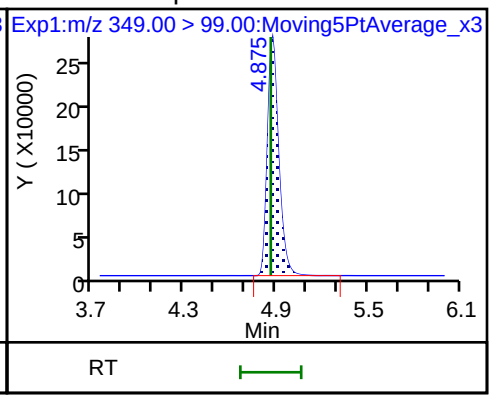
D 27 13C5 PFHxA



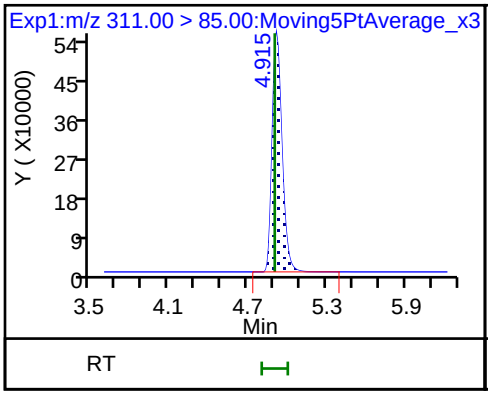
28 Perfluoropentanesulfonic acid



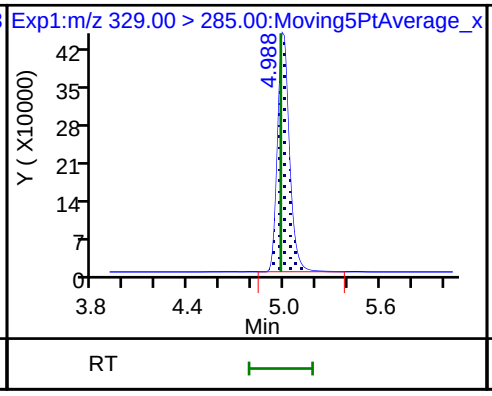
28 Perfluoropentanesulfonic acid



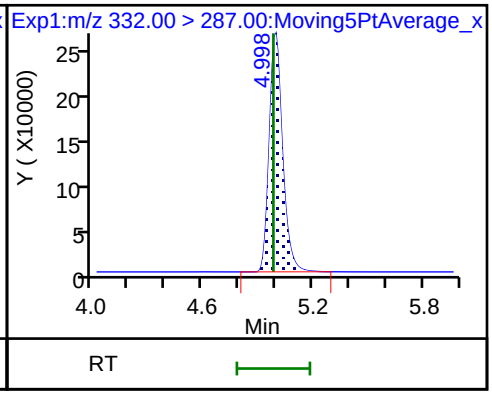
29 PFO3OA



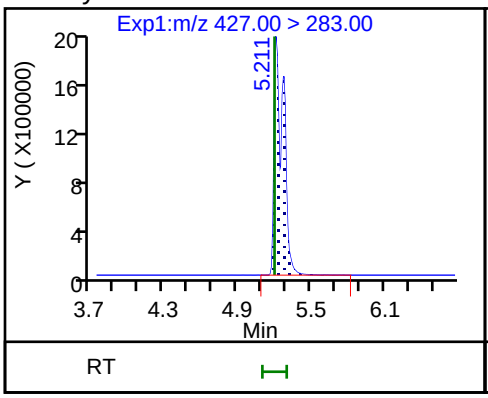
30 HFPO-DA



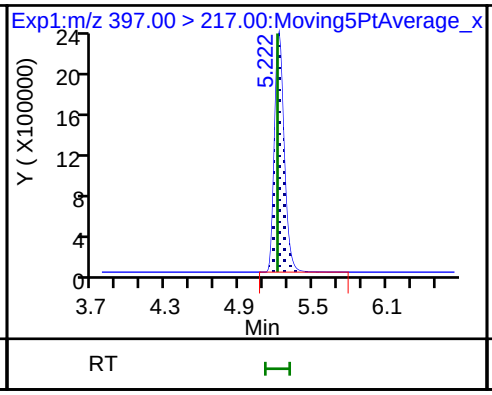
D 31 13C3 HFPO-DA



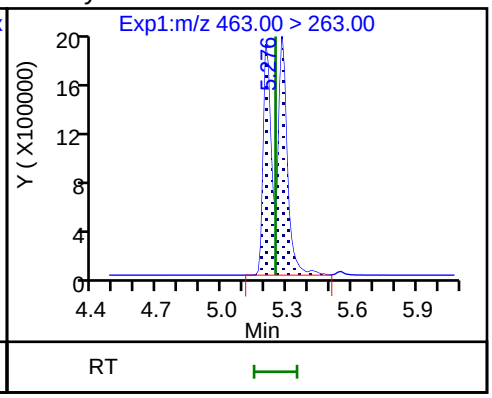
32 Hydro-EVE Acid



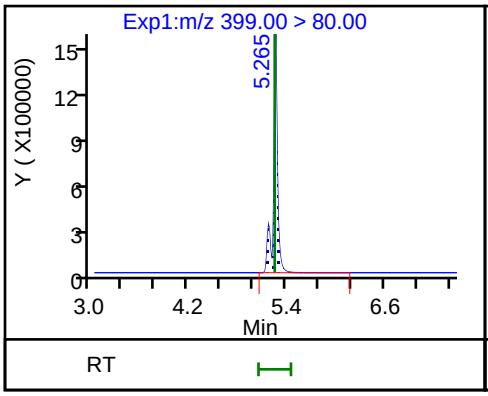
33 R-PSDCA



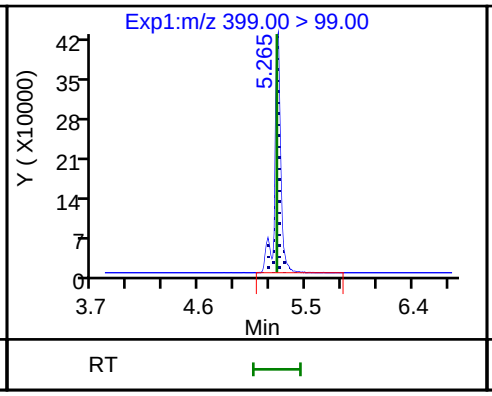
34 Hydro-PS Acid



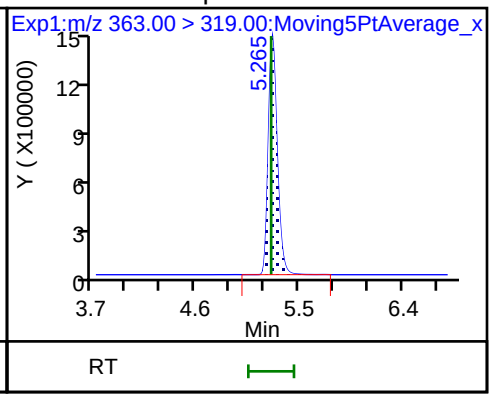
35 Perfluorohexanesulfonic acid



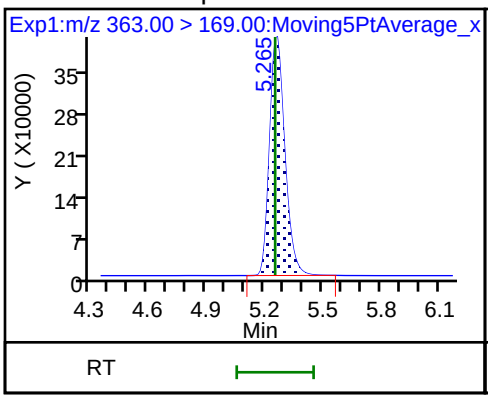
35 Perfluorohexanesulfonic acid



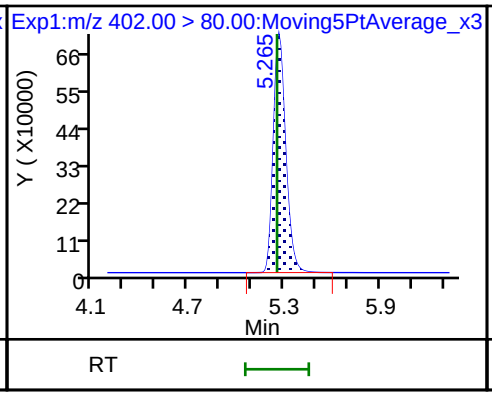
36 Perfluoroheptanoic acid



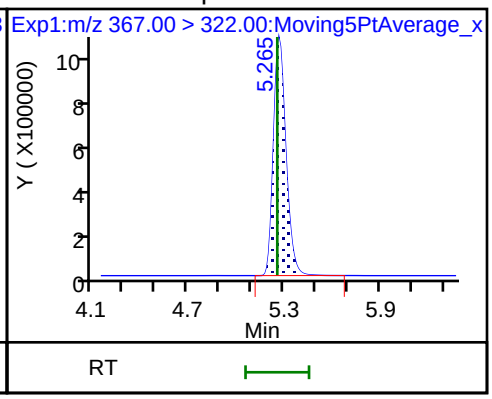
36 Perfluoroheptanoic acid



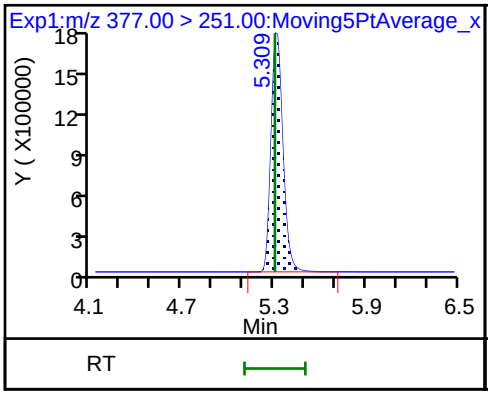
D 37 13C3 PFHxS



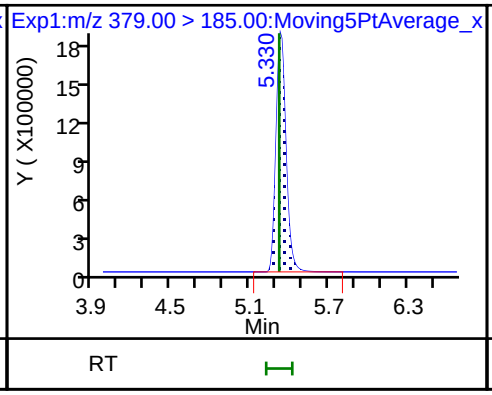
D 38 13C4 PFHpA



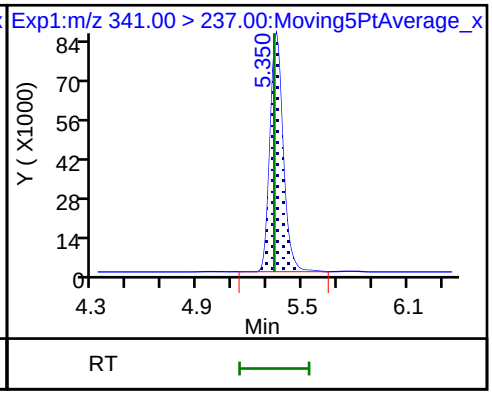
39 DONA



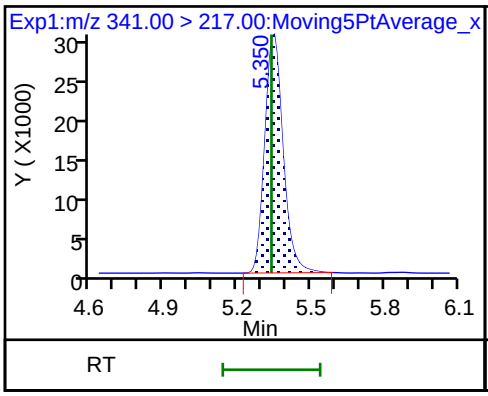
40 PFECA G



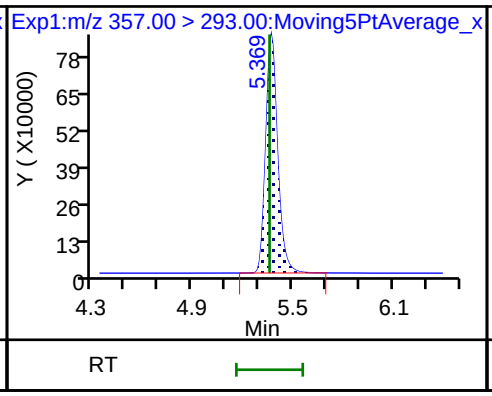
41 5:3 FTCA



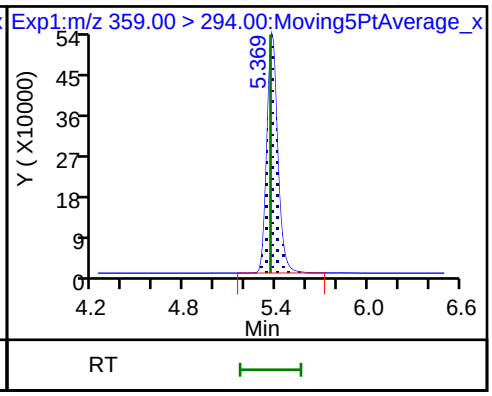
41 5:3 FTCA



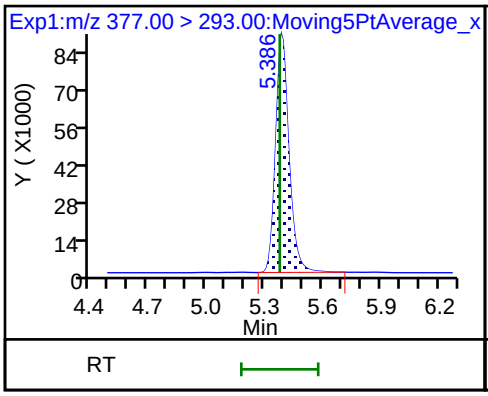
42 6:2 FTUCA



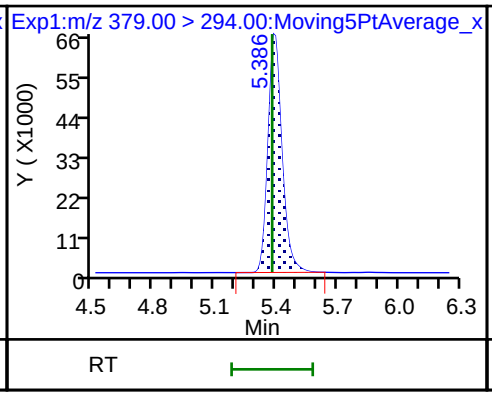
D 43 13C-6:2 FTUCA



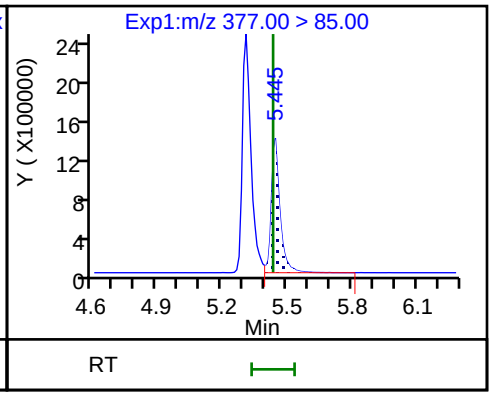
44 6:2 FTCA



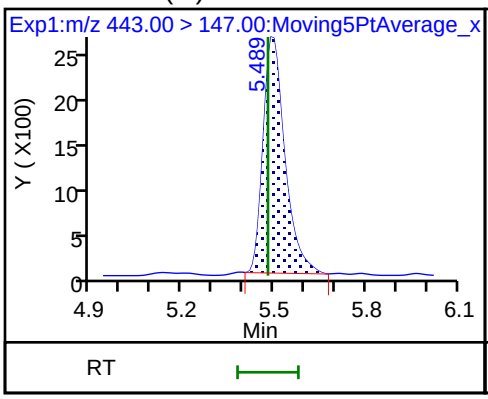
D 45 13C-6:2 FTCA



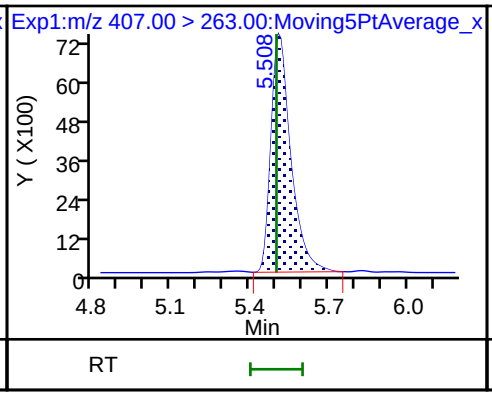
46 PFO4DA



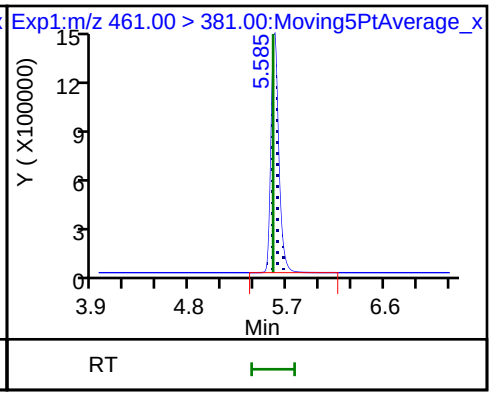
47 PS Acid (M)



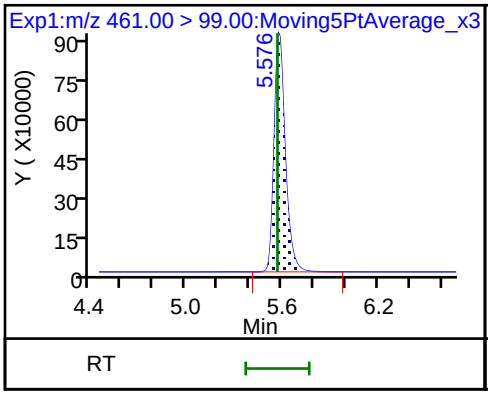
48 EVE Acid



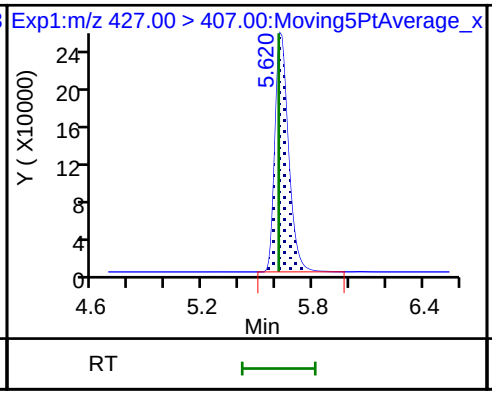
49 PFECHS



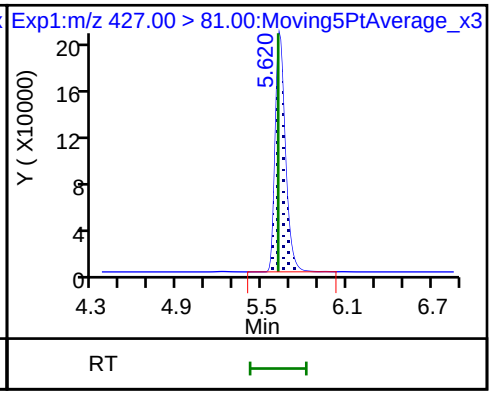
49 PFECHS



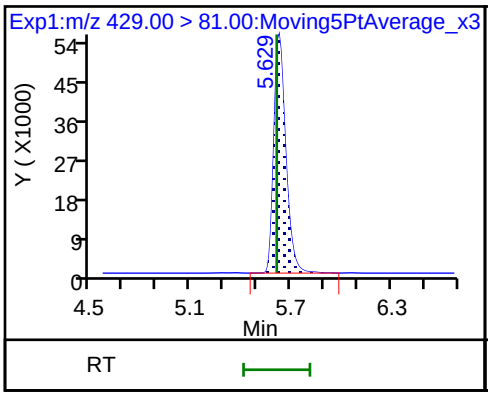
50 6:2 FTS



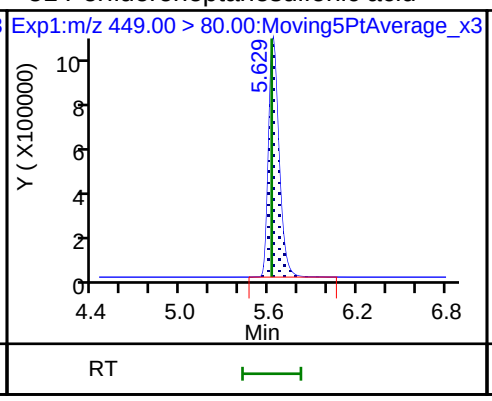
50 6:2 FTS



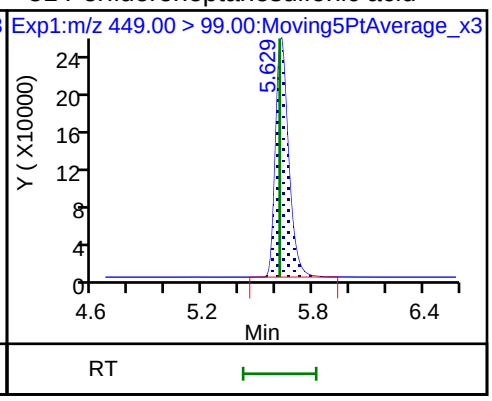
D 52 M2-6:2 FTS



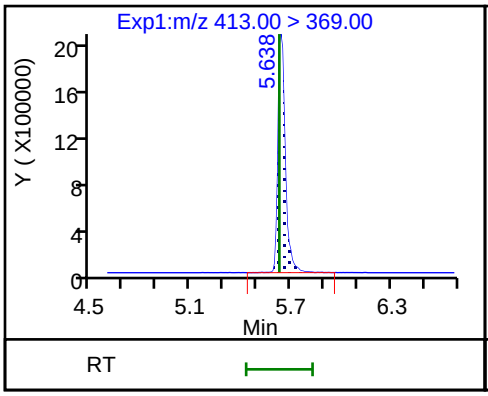
51 Perfluoroheptanesulfonic acid



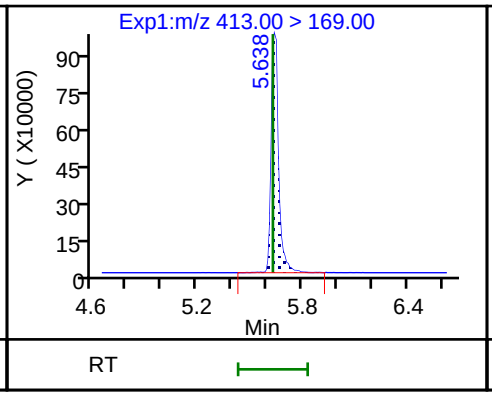
51 Perfluoroheptanesulfonic acid



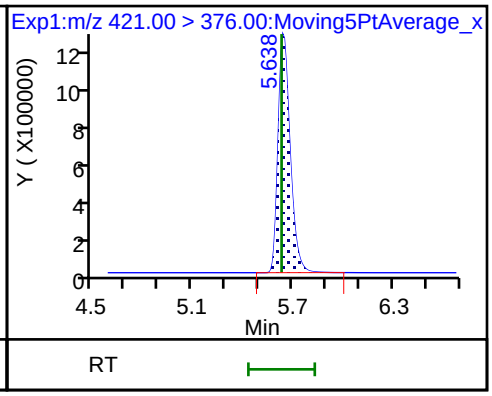
53 Perfluorooctanoic acid



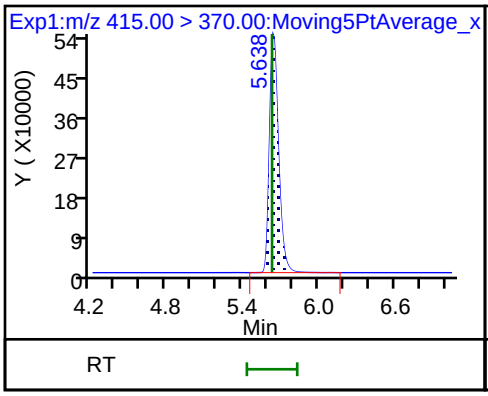
53 Perfluorooctanoic acid



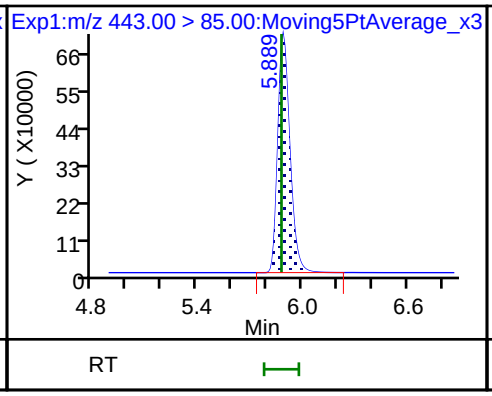
D 54 13C8 PFOA



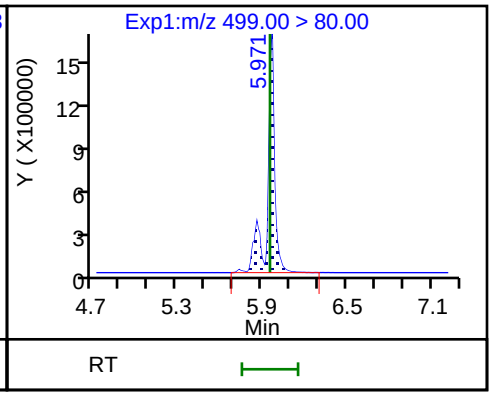
* 55 13C2 PFOA



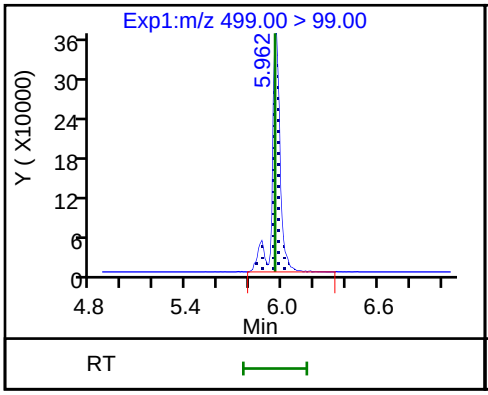
56 TAF



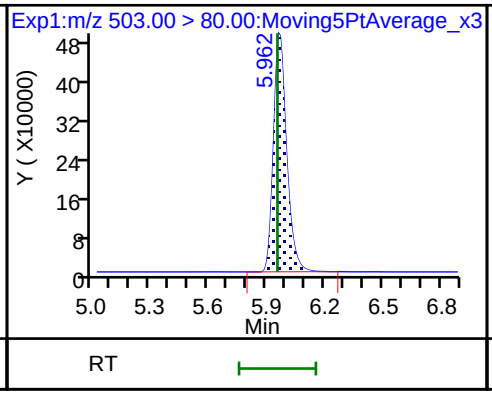
57 Perfluorooctanesulfonic acid



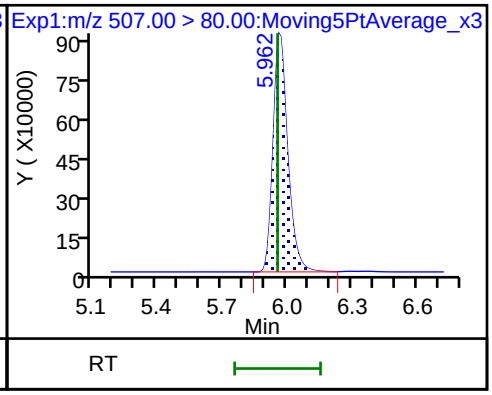
57 Perfluorooctanesulfonic acid



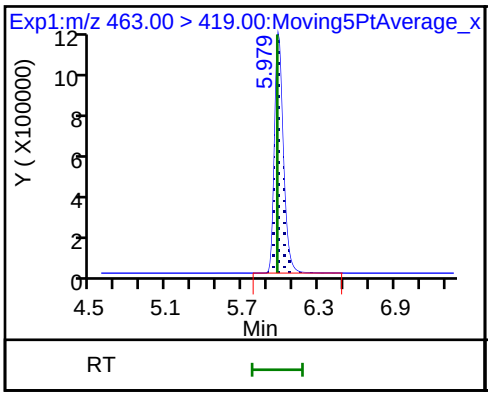
* 59 13C4 PFOS



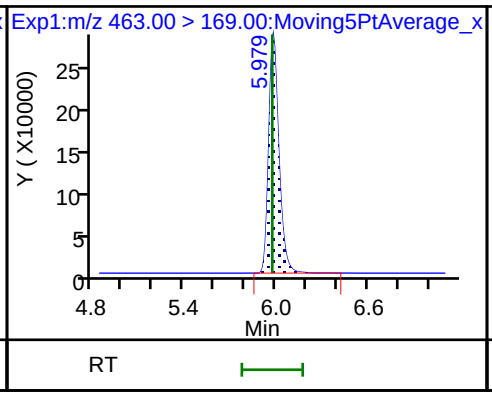
D 58 13C8 PFOS



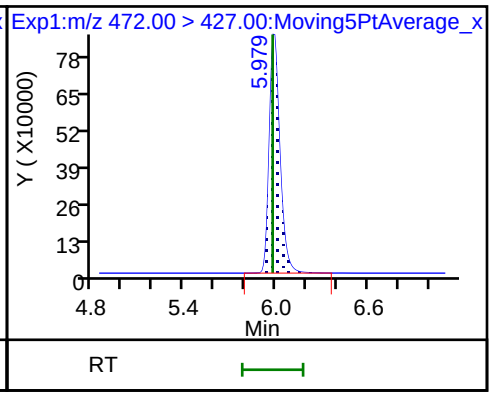
61 Perfluorononanoic acid



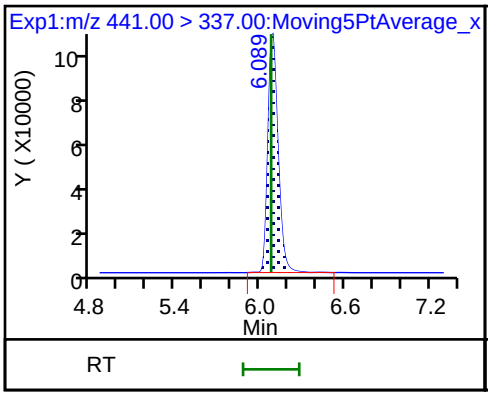
61 Perfluorononanoic acid



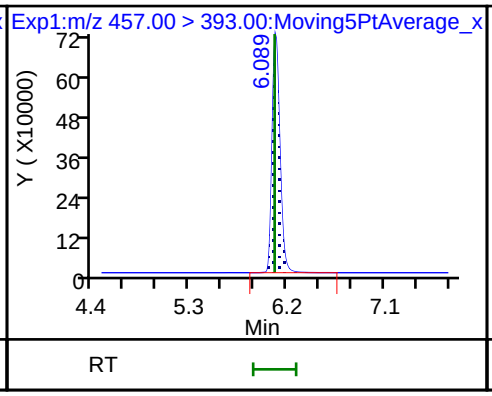
D 60 13C9 PFNA



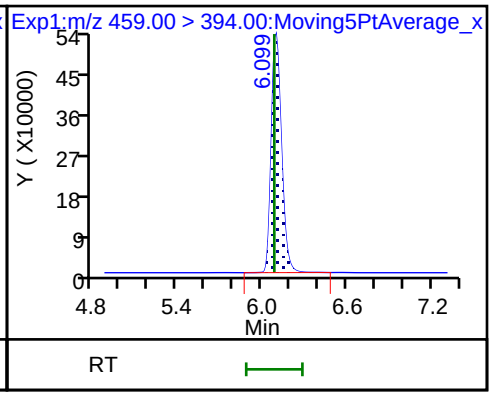
62 7:3 FTCA



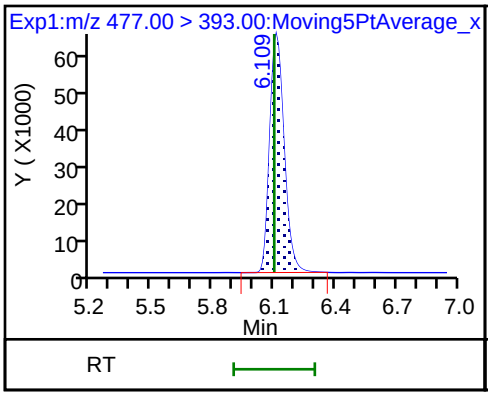
63 8:2 FTUCA



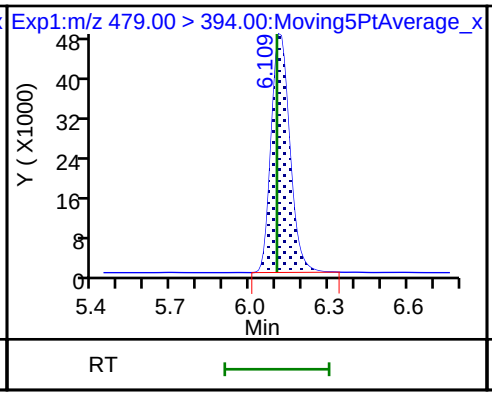
D 64 13C-8:2 FTUCA



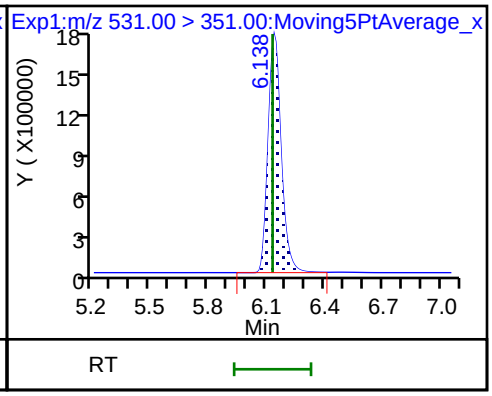
65 8:2 FTCA



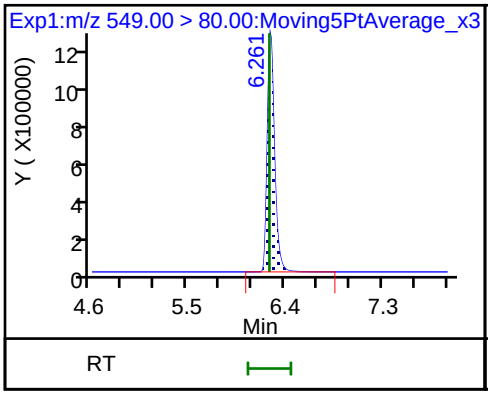
D 66 13C-8:2 FTCA



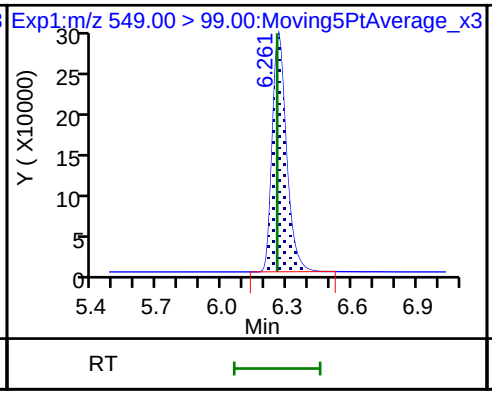
67 9ClFOS



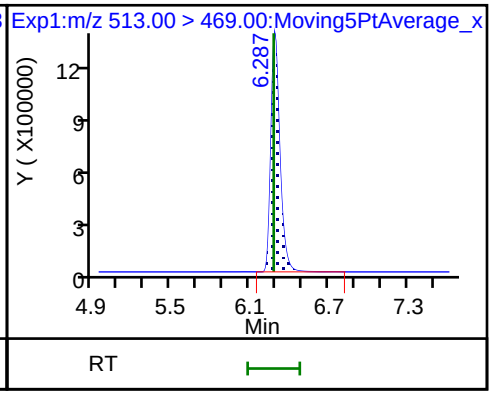
68 Perfluorononanesulfonic acid



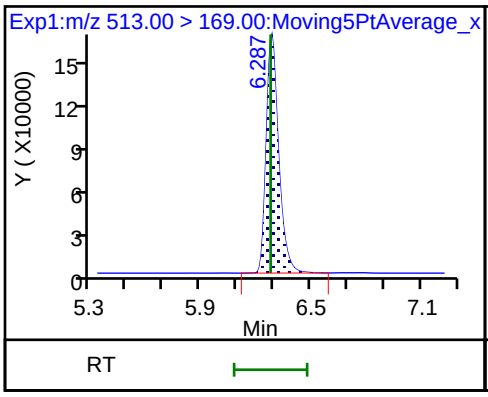
68 Perfluorononanesulfonic acid



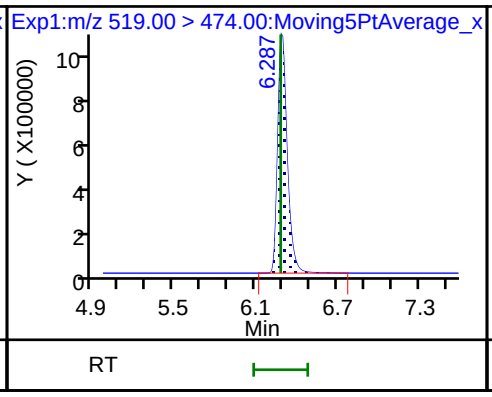
69 Perfluorodecanoic acid



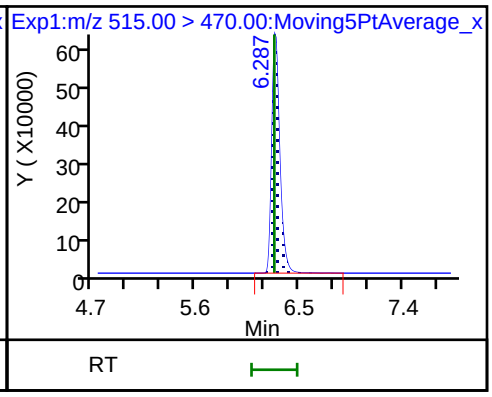
69 Perfluorodecanoic acid



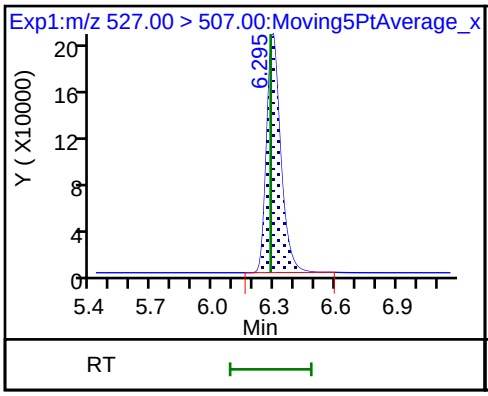
D 71 13C6 PFDA



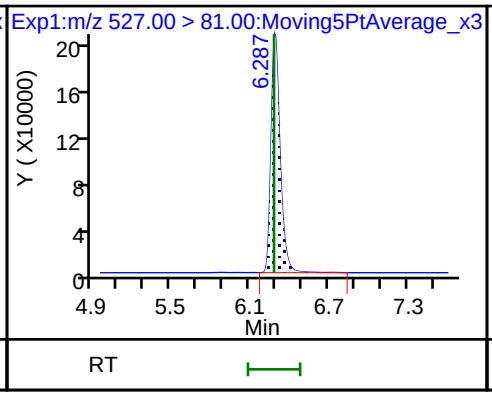
* 70 13C2 PFDA



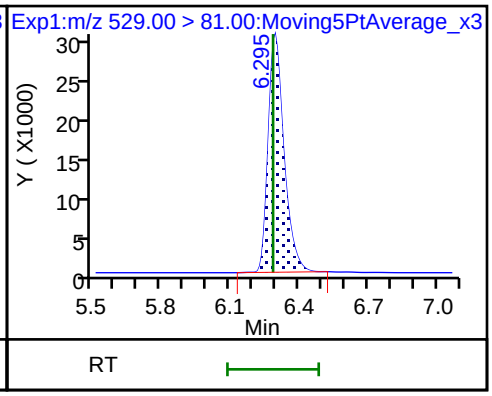
72 8:2 FTS



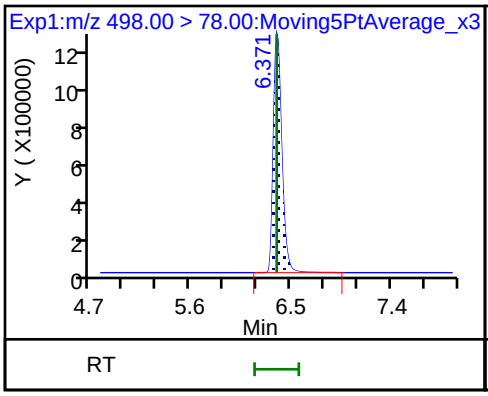
72 8:2 FTS



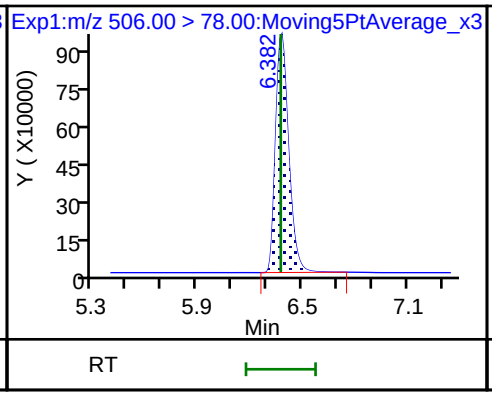
D 73 M2-8:2 FTS



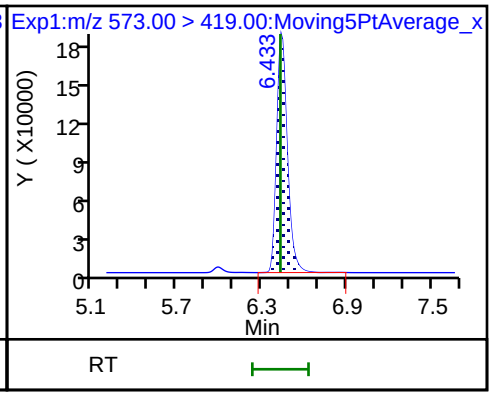
75 Perfluorooctanesulfonamide



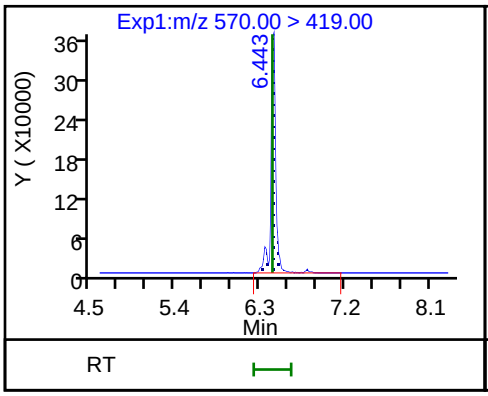
D 74 13C8 FOSA



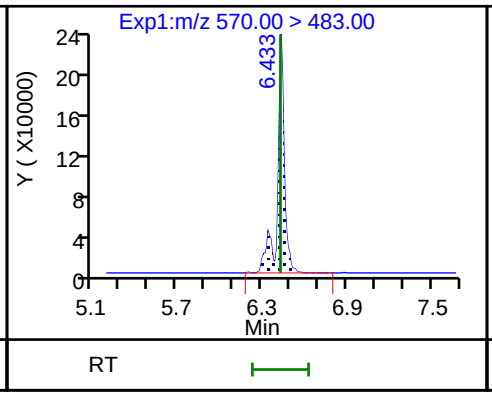
D 77 d3-NMeFOSAA



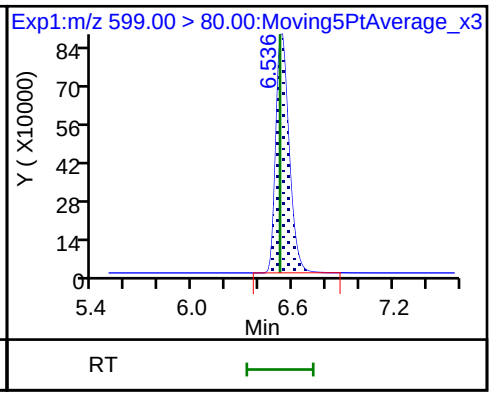
76 NMeFOSAA



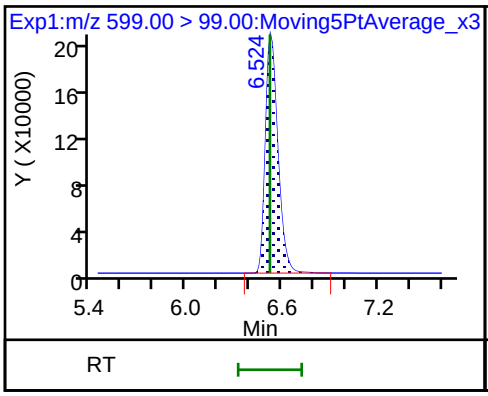
76 NMeFOSAA



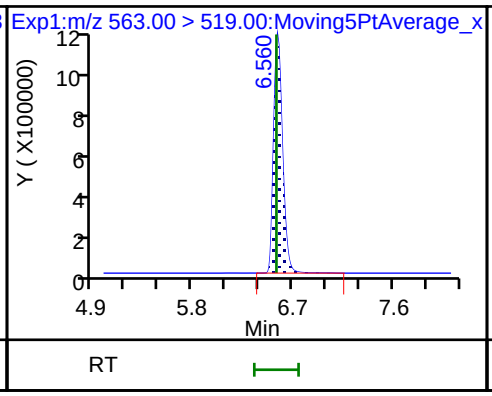
78 Perfluorodecanesulfonic acid



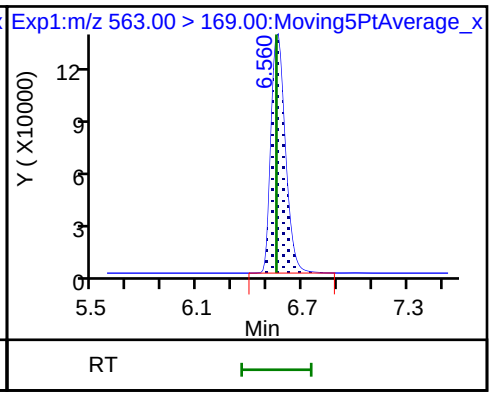
78 Perfluorodecanesulfonic acid



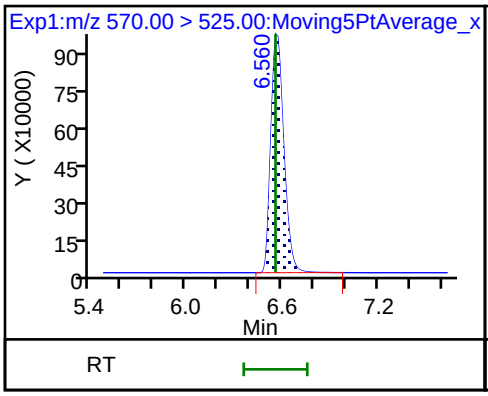
79 Perfluoroundecanoic acid



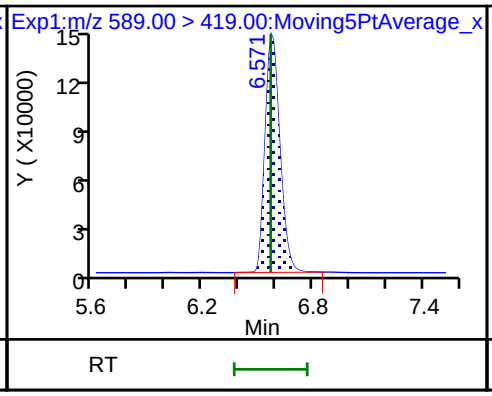
79 Perfluoroundecanoic acid



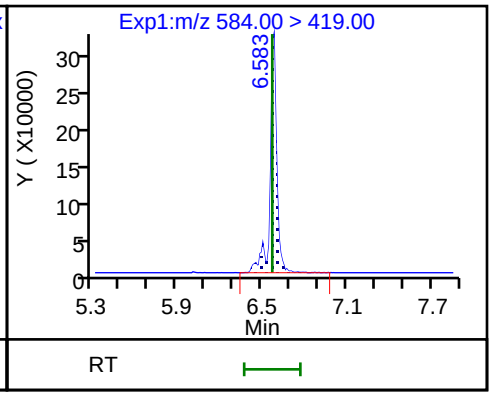
D 80 13C7 PFUnA



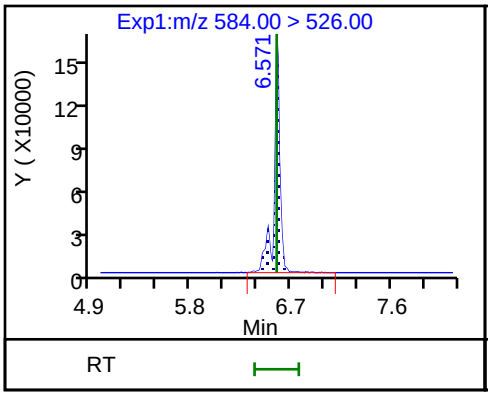
D 81 d5-NEtFOSAA



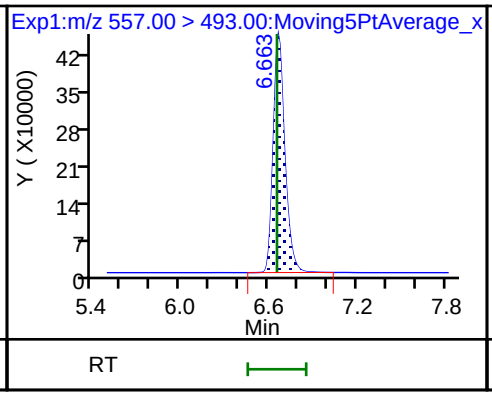
82 NEtFOSAA



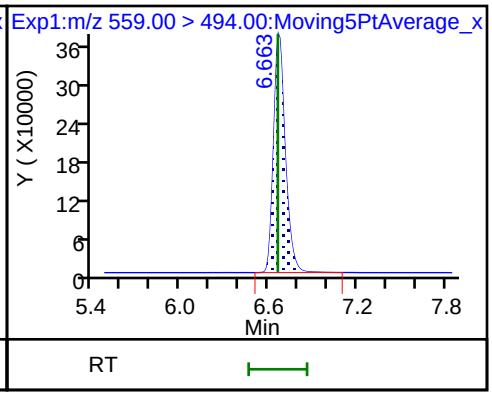
82 NEtFOSAA



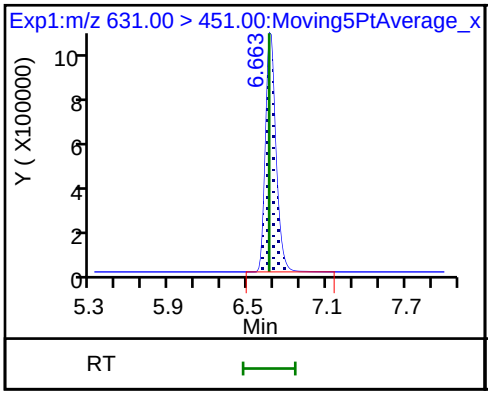
83 10:2 FTUCA



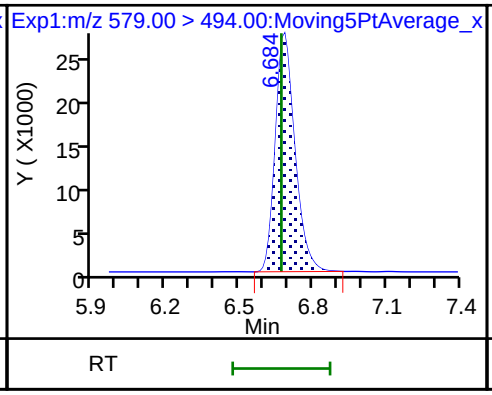
D 85 13C-10:2 FTUCA



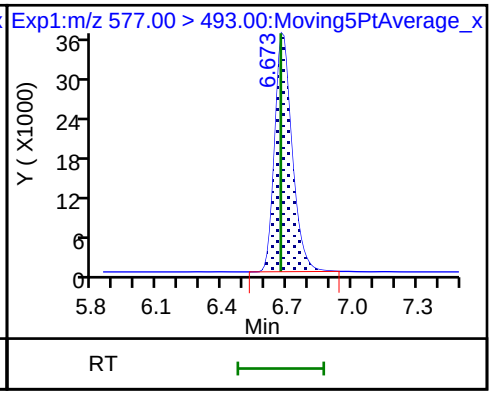
84 11ClFOS



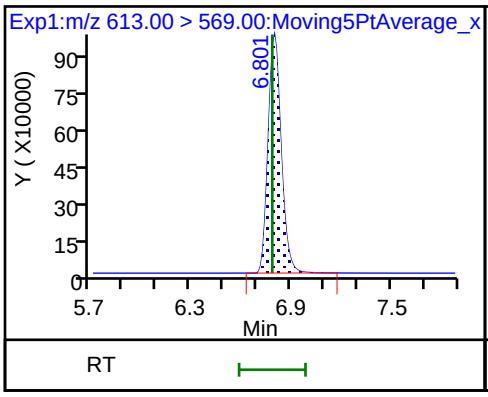
D 87 13C-10:2 FTCA



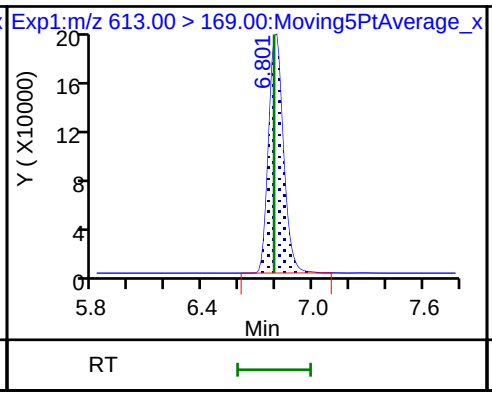
86 10:2 FTCA



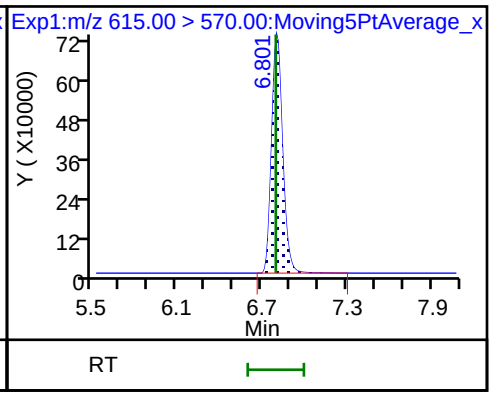
88 Perfluorododecanoic acid



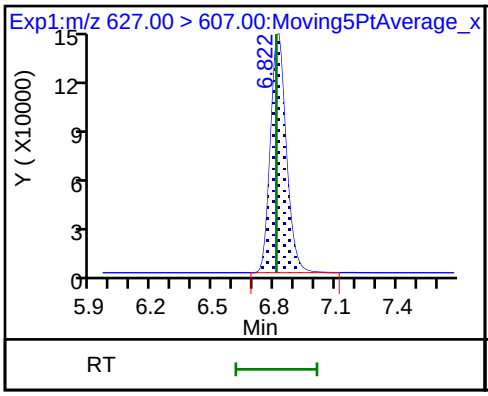
88 Perfluorododecanoic acid



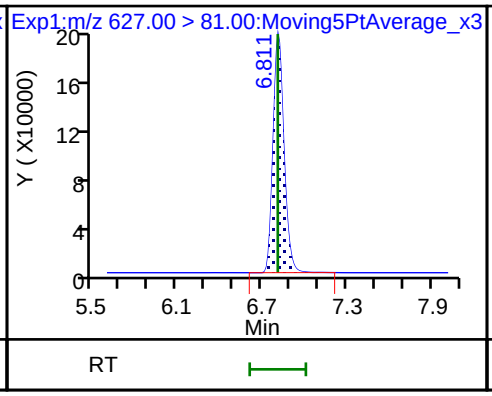
D 89 13C2-PFDoDA



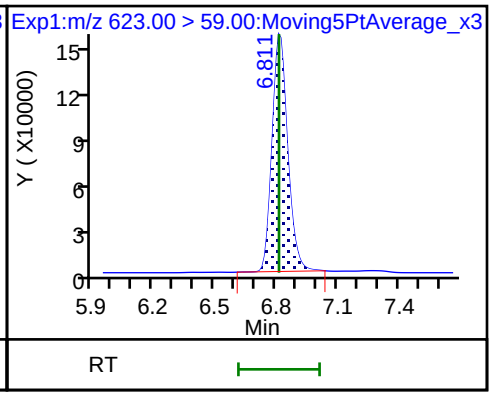
90 10:2 FTS



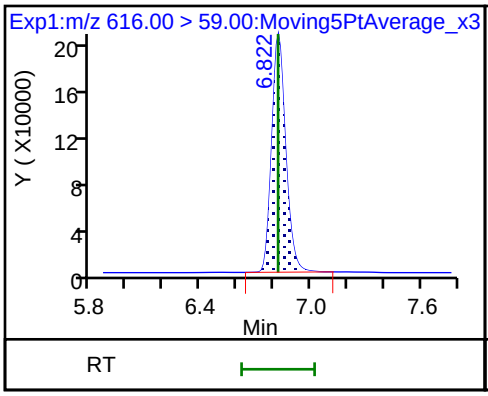
90 10:2 FTS



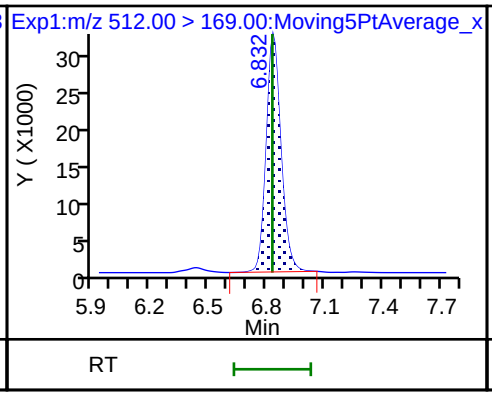
D 91 d7-N-MeFOSE-M



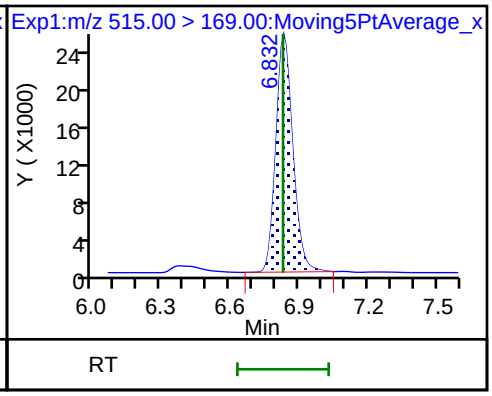
92 N-MeFOSE-M



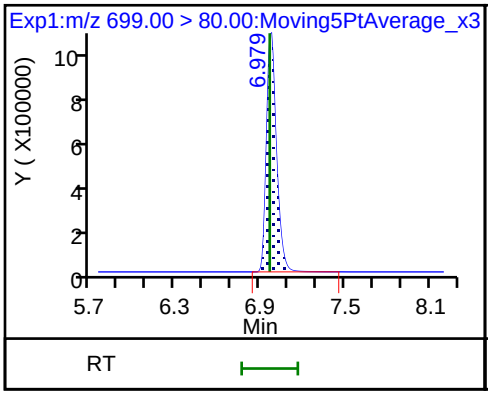
94 NMeFOSA



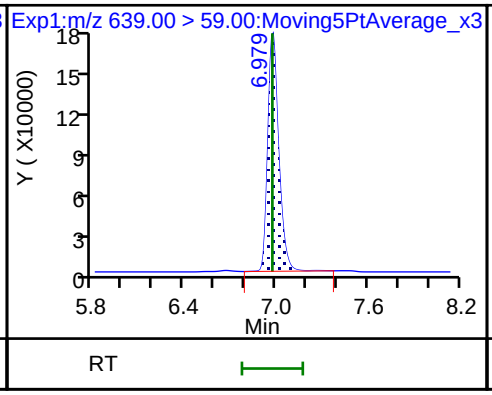
D 93 d3-NMePFOSA



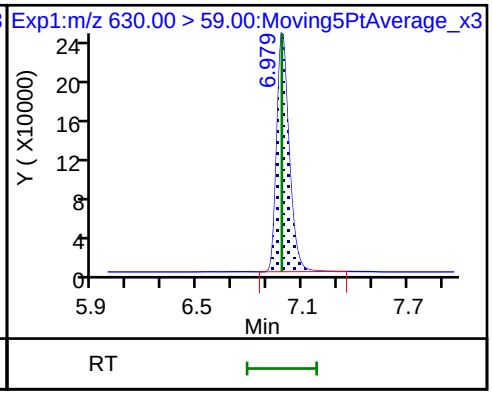
95 PFDoS



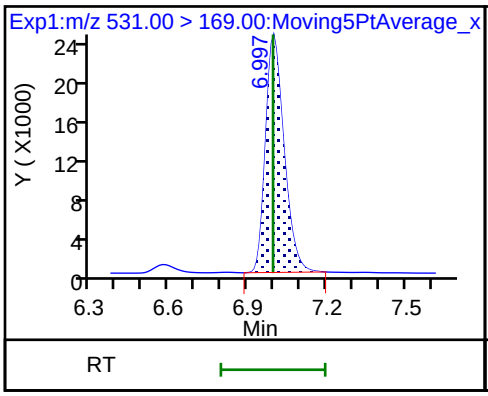
D 96 d9-N-EtFOSE-M



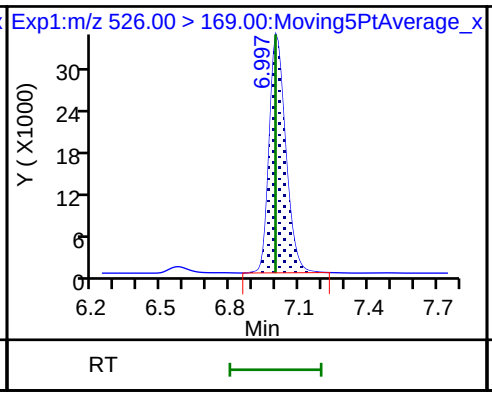
97 N-EtFOSE-M



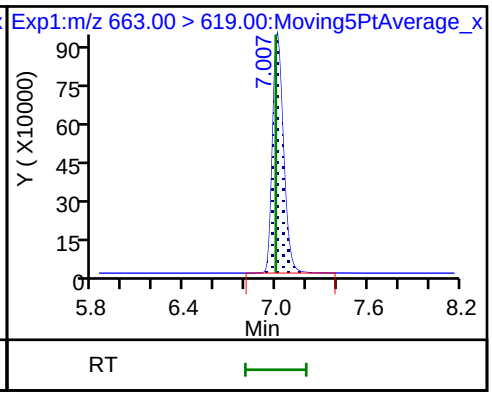
D 98 d5-NEtPFOSA



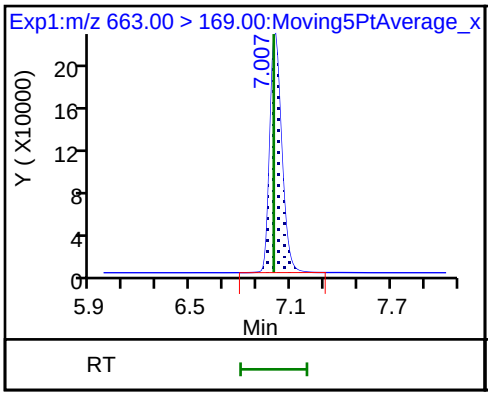
100 N-EtFOSA-M



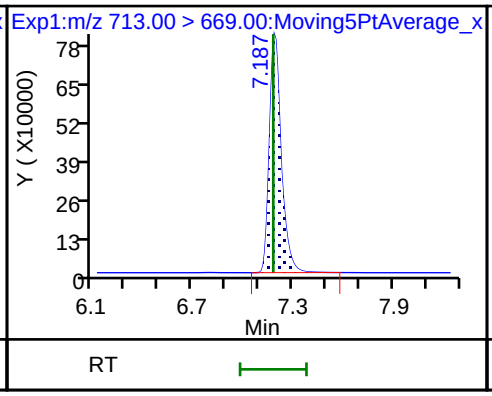
99 Perfluorotridecanoic acid



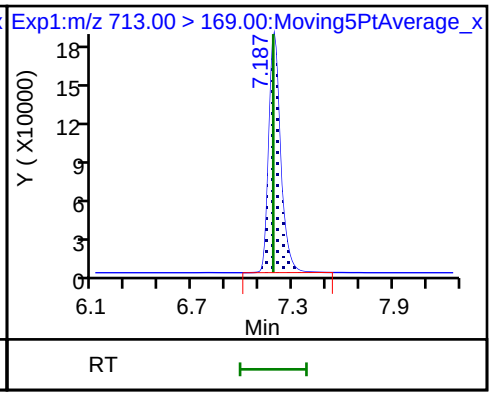
99 Perfluorotridecanoic acid



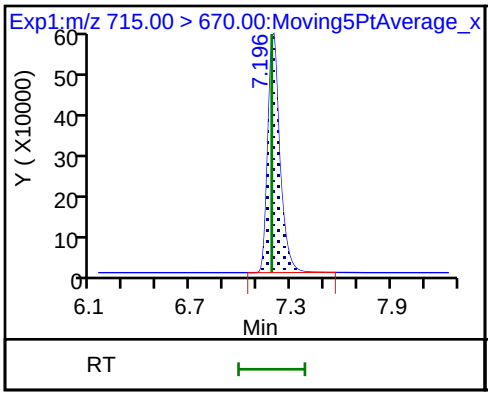
101 Perfluorotetradecanoic acid



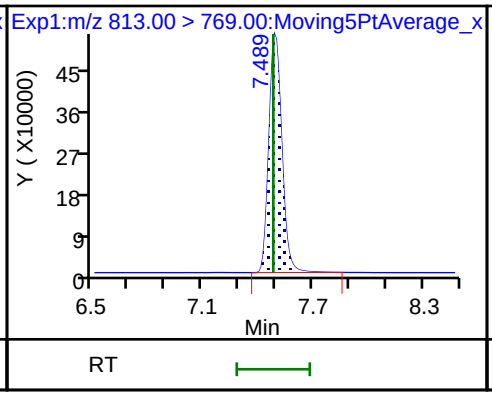
101 Perfluorotetradecanoic acid



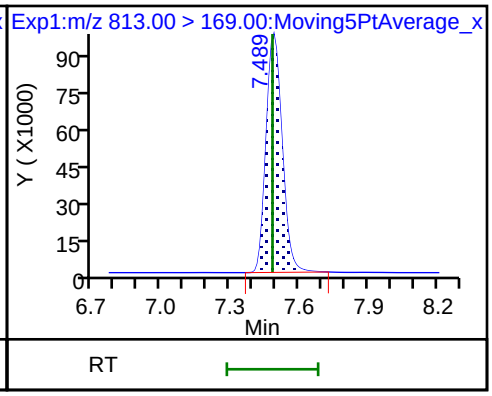
D 102 13C2 PFTeDA



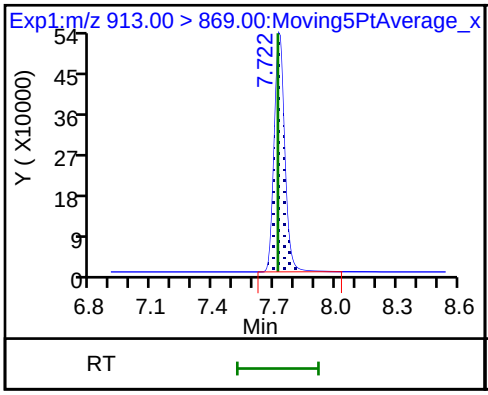
103 Perfluorohexadecanoic acid



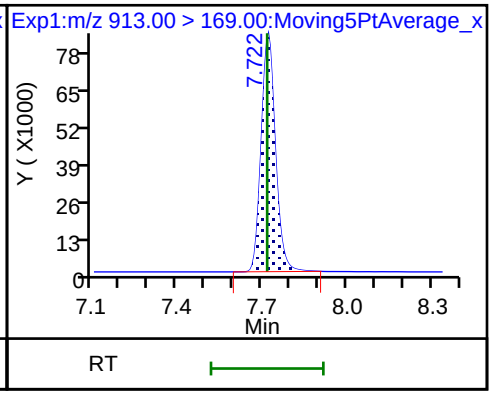
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 410-226178/3-A
Matrix: Water
Lab File ID: 22FEB22-63.d
Analysis Method: 537 IDA
Date Collected:
Extraction Method: 537 IDA
Date Extracted: 02/22/2022 07:11
Sample wt/vol: 250(mL)
Date Analyzed: 02/23/2022 09:13
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 5(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 226634
Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	20.9		2.0	0.50
375-85-9	Perfluoroheptanoic acid	22.3		2.0	0.50
335-67-1	Perfluorooctanoic acid	24.3		2.0	0.50
375-95-1	Perfluorononanoic acid	21.9		2.0	0.50
335-76-2	Perfluorodecanoic acid	21.1		2.0	0.50
72629-94-8	Perfluorotridecanoic acid	21.6		2.0	0.50
376-06-7	Perfluorotetradecanoic acid	21.5		2.0	0.50
375-73-5	Perfluorobutanesulfonic acid	19.8		2.0	0.50
355-46-4	Perfluorohexanesulfonic acid	18.5		2.0	0.50
1763-23-1	Perfluorooctanesulfonic acid	19.2		2.0	0.50
2991-50-6	NEtFOSAA	21.2		3.0	0.50
2355-31-9	NMeFOSAA	22.2		2.0	0.60
375-92-8	Perfluoroheptanesulfonic acid	22.2		2.0	0.50
335-77-3	Perfluorodecanesulfonic acid	18.0		2.0	0.50
754-91-6	Perfluorooctanesulfonamide	28.4		2.0	0.50
375-22-4	Perfluorobutanoic acid	20.0		5.0	2.0
2058-94-8	Perfluoroundecanoic acid	20.8		2.0	0.50
307-55-1	Perfluorododecanoic acid	21.5		2.0	0.50
27619-97-2	6:2 Fluorotelomer sulfonic acid	22.6		5.0	2.0
39108-34-4	8:2 Fluorotelomer sulfonic acid	20.5		3.0	1.0
2706-90-3	Perfluoropentanoic acid	21.2		2.0	0.50

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-226178/3-A

Matrix: Water Lab File ID: 22FEB22-63.d

Analysis Method: 537 IDA Date Collected:

Extraction Method: 537 IDA Date Extracted: 02/22/2022 07:11

Sample wt/vol: 250(mL) Date Analyzed: 02/23/2022 09:13

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

Injection Volume: 5(uL) GC Column: Gemini C18 50mm ID: 3(mm)

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

Analysis Batch No.: 226634 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	155		33-200
STL02279	M2-6:2 FTS	155		17-200
STL02577	13C5 PFHxA	153		24-179
STL01892	13C4 PFHpA	145		31-182
STL01052	13C8 PFOA	142		48-162
STL02578	13C9 PFNA	141		51-167
STL02579	13C6 PFDA	145		49-163
STL02580	13C7 PFUnA	152		34-174
STL02703	13C2-PFDoDA	142		17-176
STL02116	13C2 PFTeDA	135		10-179
STL02337	13C3 PFBS	148		16-200
STL02581	13C3 PFHxS	152		28-188
STL01054	13C8 PFOS	149		51-159
STL02118	d3-NMeFOSAA	141		31-174
STL02117	d5-NEtFOSAA	153		29-195
STL01056	13C8 FOSA	125		10-168
STL00992	13C4 PFBA	144		42-165
STL01893	13C5 PFPeA	149		38-187

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-63.d
Lims ID: LCSD 410-226178/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 23-Feb-2022 09:13:29 ALS Bottle#: 51 Worklist Smp#: 59
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 410-226178/3-A
Misc. Info.: Plate: 3 Rack: 1 410-0050963-059
Operator ID: US19_USR_INS20260 Instrument ID: 30733

Method: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\PFAS_30733_XList_2.m
Limit Group: LC - PFC IDA
Last Update: 23-Feb-2022 11:52:21 Calib Date: 22-Feb-2022 16:18:36
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30733\20220222-50930.b\22FEB22MCAL-07.d

Column 1 : Det: EXP1
Process Host: CTX1671

First Level Reviewer: kruelleh Date: 23-Feb-2022 11:12:11
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 MTP										
175.00 > 97.00	1.460	1.469	-0.009	0.366	87582	8.08		126	3110	
1 PPF Acid										
163.00 > 119.00	1.820	1.837	-0.017	0.456	471855	5.42		84.8	3270	
96 PFMOAA										
179.00 > 85.00	2.930	2.942	-0.012	0.734	272364	5.13		80.1	996	
100 R-PSDA										
441.00 > 241.00	3.974	3.947	0.027	0.865	24840	6.41		100	1953	
99 R-EVE										
405.00 > 217.00	3.974	3.947	0.027	0.996	74506	5.47		85.5	4375	
105 Hydrolyzed PSDA										
439.00 > 343.00	3.992	3.963	0.029	0.869	120971	6.20		96.9	8297	
D 3 13C4 PFBA										
217.00 > 172.00	3.992	3.972	0.020	1.000	1765483	14.4		144	100705	
2 Perfluorobutanoic acid										
213.00 > 169.00	3.992	3.972	0.020	1.000	833579	5.01		78.3	11936	
* 4 13C3-PFBA										
216.00 > 172.00	3.992	3.972	0.020		551860	5.00			2125	
102 PMPA										
229.00 > 185.00	4.121	4.098	0.023	1.032	471670	6.13		95.7	10144	
5 PFPrS										
249.00 > 99.00	4.173	4.159	0.014	1.045	208127	5.14		87.7	14659	
103 NVHOS										
297.00 > 135.00	4.215	4.191	0.024	0.917	209549	5.88		92.0	14694	
6 PFECA F										
229.00 > 85.00	4.236	4.223	0.013	1.061	836317	5.28		82.5	14952	
92 PFO2HxA										
245.00 > 85.00	4.427	4.402	0.025	1.109	306540	5.73		89.6	16543	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
7 Perfluoropentanoic acid										
263.00 > 219.00	4.537	4.514	0.023	1.000	868137	5.31		82.9	21763	
D 8 13C5 PFPeA										
268.00 > 223.00	4.537	4.524	0.013	1.137	1576260	14.9		149	88825	
9 3:3 FTCA										
241.00 > 177.00	4.537	4.524	0.013	1.000	50685	4.80		75.0	3727	
D 11 13C3 PFBS										
302.00 > 80.00	4.594	4.572	0.022	1.151	1155888	13.8		148	89113	
10 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.585	4.572	0.013	0.998	662890	4.96	Target=3.22	87.5	38474	
299.00 > 99.00	4.585	4.572	0.013	0.998	195456		3.39(1.61-4.83)		15166	
91 PEPA										
279.00 > 235.00	4.648	4.628	0.020	1.164	195666	6.04		94.3	7817	
12 PFECA A										
279.00 > 85.00	4.665	4.653	0.012	1.015	630922	5.31		83.0	51870	
13 PES										
315.00 > 135.00	4.758	4.740	0.018	1.036	1907007	4.61		80.9	155271	
14 PFECA B										
201.00 > 85.00	4.892	4.870	0.022	1.065	771612	5.29	Target=1.44	82.7	3992	
295.00 > 201.00	4.882	4.870	0.012	1.063	515691		1.50(0.72-2.15)		37342	
D 16 M2-4:2 FTS										
329.00 > 81.00	4.923	4.899	0.024	0.862	245413	14.6		156	17581	
15 4:2 FTS										
327.00 > 307.00	4.912	4.899	0.013	0.998	366950	4.48	Target=1.53	75.0	25890	
327.00 > 81.00	4.912	4.899	0.013	0.998	212037		1.73(0.77-2.30)		15125	
D 19 13C5 PFHxA										
318.00 > 273.00	4.954	4.940	0.014	0.868	2004460	15.3		153	109101	
17 Perfluorohexanoic acid										
313.00 > 269.00	4.954	4.940	0.014	1.000	878319	5.22	Target=16.07	81.6	15994	
313.00 > 119.00	4.954	4.940	0.014	1.000	59117		14.86(8.04-24.11)		4222	
20 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.974	4.960	0.014	1.083	632397	5.39	Target=3.46	89.7	46428	
349.00 > 99.00	4.974	4.960	0.014	1.083	177395		3.56(1.73-5.19)		13110	
93 PFO3OA										
311.00 > 85.00	5.011	4.999	0.012	1.255	328957	6.52		102	25284	
D 22 13C3 HFPO-DA										
332.00 > 287.00	5.083	5.070	0.013	0.890	277988	14.4		144	21284	
21 HFPO-DA										
329.00 > 285.00	5.083	5.070	0.013	1.000	272325	5.12		80.0	15740	
106 Hydro-PS Acid										
463.00 > 263.00	5.359	5.273	0.086	1.167	1405379	6.01		93.9	310591	
97 Hydro-EVE Acid										
427.00 > 283.00	5.297	5.284	0.013	1.327	1513218	6.78		106	3369	
94 R-PSDCA										
397.00 > 217.00	5.297	5.284	0.013	1.153	1697767	5.74		89.6	89429	
D 25 13C3 PFHxS										
402.00 > 80.00	5.349	5.326	0.023	0.937	1161782	14.3		152	63804	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
26 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.340	5.326	0.014	0.998	617464	4.63	Target=3.59	79.2	1365	
399.00 > 99.00	5.340	5.326	0.014	0.998	185732		3.32(1.79-5.38)		537	
23 Perfluoroheptanoic acid										
363.00 > 319.00	5.340	5.326	0.014	0.998	1188073	5.56	Target=3.65	86.9	36631	
363.00 > 169.00	5.340	5.326	0.014	0.998	338976		3.50(1.82-5.47)		24726	
D 24 13C4 PFHpA										
367.00 > 322.00	5.349	5.337	0.012	0.937	2113648	14.5		145	155518	
27 DONA										
377.00 > 251.00	5.394	5.374	0.020	1.008	1406750	5.22		86.4	67832	
98 PFECA G										
379.00 > 185.00	5.410	5.391	0.019	1.355	1556679	6.09		95.1	95240	
28 5:3 FTCA										
341.00 > 237.00	5.427	5.407	0.020	1.014	188949	4.43	Target=50.84	69.3	11409	
339.00 > 295.00	5.452	5.407	0.045	1.019	3913		48.29(25.42-76.26)		97.6	
D 30 13C-6:2 FTUCA										
359.00 > 294.00	5.444	5.432	0.012	0.954	1454972	11.6		116	86060	
29 6:2 FTUCA										
357.00 > 293.00	5.444	5.432	0.012	1.000	1186296	6.00		93.8	71124	
D 31 13C-6:2 FTCA										
379.00 > 294.00	5.469	5.449	0.020	0.958	281886	24.4		244	22158	
32 6:2 FTCA										
377.00 > 293.00	5.460	5.449	0.011	0.998	89235	3.00		46.9	5220	
95 PFO4DA										
377.00 > 85.00	5.522	5.502	0.020	1.383	348725	5.97		93.3	768	
104 PS Acid										
443.00 > 147.00	5.564	5.544	0.020	1.211	67769	0.9120		14.2	5587	
90 EVE Acid										
407.00 > 263.00	5.581	5.569	0.012	1.398	237043	1.39		21.7	19004	
33 PFECHS										
461.00 > 381.00	5.651	5.629	0.022	1.056	990149	4.54	Target=1.94	76.9	53871	
461.00 > 99.00	5.651	5.629	0.022	1.056	506069		1.96(0.97-2.91)		36586	
D 35 M2-6:2 FTS										
429.00 > 81.00	5.699	5.677	0.022	0.998	102525	14.7		155	7479	
36 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.699	5.677	0.022	1.065	690449	5.54	Target=3.50	90.9	50915	
449.00 > 99.00	5.690	5.677	0.013	1.064	182755		3.78(1.75-5.24)		13535	
34 6:2 FTS										
427.00 > 407.00	5.690	5.677	0.013	0.998	275388	5.66	Target=1.31	93.3	20303	
427.00 > 81.00	5.690	5.677	0.013	0.998	182165		1.51(0.65-1.96)		13453	
40 Perfluorooctanoic acid										
413.00 > 369.00	5.709	5.696	0.013	1.000	1059976	6.08	Target=2.48	95.0	236725	
413.00 > 169.00	5.709	5.696	0.013	1.000	406632		2.61(1.24-3.72)		1122	
D 37 13C8 PFOA										
421.00 > 376.00	5.709	5.696	0.013	1.000	2280488	14.2		142	126755	
* 38 13C2 PFOA										
415.00 > 370.00	5.709	5.696	0.013		605971	5.00			44960	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
101 TAF										
443.00 > 85.00	5.958	5.945	0.013	1.492	297509	5.71		89.2	23240	
D 41 13C8 PFOS										
507.00 > 80.00	6.029	6.015	0.014	1.000	1194202	14.3		149	38906	
43 Perfluorooctanesulfonic acid										
499.00 > 80.00	6.038	6.015	0.023	1.002	639725	4.81	Target=4.38	81.1	903	
499.00 > 99.00	6.029	6.015	0.014	1.000	143221		4.47(2.19-6.57)		414	
* 42 13C4 PFOS										
503.00 > 80.00	6.029	6.015	0.014		396653	4.78			22476	
D 45 13C9 PFNA										
472.00 > 427.00	6.047	6.033	0.014	1.003	1959633	14.1		141	108930	
44 Perfluorononanoic acid										
463.00 > 419.00	6.047	6.033	0.014	1.000	993663	5.48	Target=4.84	85.6	32341	
463.00 > 169.00	6.047	6.033	0.014	1.000	197225		5.04(2.42-7.25)		14865	
46 7:3 FTCA										
441.00 > 337.00	6.152	6.139	0.013	1.125	212148	2.28		35.7	16899	
D 48 13C-8:2 FTUCA										
459.00 > 394.00	6.167	6.148	0.019	0.970	1802620	11.2		112	146129	
47 8:2 FTUCA										
457.00 > 393.00	6.159	6.148	0.011	0.999	1219399	6.35		99.2	98895	
D 50 13C-8:2 FTCA										
479.00 > 394.00	6.182	6.164	0.018	0.972	235053	21.7		217	19313	
49 8:2 FTCA										
477.00 > 393.00	6.174	6.164	0.010	0.999	92153	4.18		65.3	7623	
51 9ClFOS										
531.00 > 351.00	6.206	6.187	0.019	1.029	1099857	4.84		81.3	89892	
52 Perfluorononanesulfonic acid										
549.00 > 80.00	6.329	6.316	0.013	1.050	636709	5.10	Target=4.28	83.0	46725	
549.00 > 99.00	6.329	6.316	0.013	1.050	150462		4.23(2.14-6.42)		11294	
D 54 13C6 PFDA										
519.00 > 474.00	6.358	6.344	0.014	1.000	2120141	14.5		145	149403	
53 Perfluorodecanoic acid										
513.00 > 469.00	6.358	6.344	0.014	1.000	1094031	5.27	Target=10.44	82.4	38976	
513.00 > 169.00	6.348	6.344	0.004	0.998	99228		11.03(5.22-15.66)		7102	
* 55 13C2 PFDA										
515.00 > 470.00	6.358	6.344	0.014		732298	5.00			51833	
56 8:2 FTS										
527.00 > 507.00	6.358	6.344	0.014	0.998	243137	5.12	Target=1.54	83.5	17237	
527.00 > 81.00	6.358	6.344	0.014	0.998	151964		1.60(0.77-2.31)		8053	
D 57 M2-8:2 FTS										
529.00 > 81.00	6.369	6.354	0.015	1.002	58865	14.8		155	4121	
D 59 13C8 FOSA										
506.00 > 78.00	6.443	6.419	0.024	1.013	1721201	12.5		125	119434	
58 Perfluorooctanesulfonamide										
498.00 > 78.00	6.433	6.419	0.014	0.998	1227899	7.10		111	64189	
D 61 d3-NMeFOSAA										
573.00 > 419.00	6.504	6.491	0.013	1.023	691918	14.1		141	28258	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
60 NMeFOSAA										
570.00 > 419.00	6.504	6.491	0.013	1.000	317098	5.56	Target=1.64	86.9	151	
570.00 > 483.00	6.504	6.491	0.013	1.000	185019		1.71(0.82-2.46)		428	
62 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.607	6.580	0.027	1.096	584851	4.51	Target=4.07	73.1	28343	
599.00 > 99.00	6.595	6.580	0.015	1.094	149987		3.90(2.03-6.10)		7359	
D 65 13C7 PFUnA										
570.00 > 525.00	6.630	6.615	0.015	1.043	2156683	15.2		152	85357	
63 Perfluoroundecanoic acid										
563.00 > 519.00	6.630	6.615	0.015	1.000	991359	5.21	Target=8.63	81.4	24557	
563.00 > 169.00	6.630	6.615	0.015	1.000	115841		8.56(4.31-12.94)		7513	
D 66 d5-NEtFOSAA										
589.00 > 419.00	6.641	6.626	0.015	1.045	524709	15.3		153	25566	
67 NEtFOSAA										
584.00 > 419.00	6.652	6.638	0.014	1.002	248362	5.31	Target=1.31	82.9	351	
584.00 > 526.00	6.652	6.638	0.014	1.002	179950		1.38(0.66-1.97)		226	
68 10:2 FTUCA										
557.00 > 493.00	6.728	6.713	0.015	0.998	750102	6.26		97.9	35730	
D 70 13C-10:2 FTUCA										
559.00 > 494.00	6.740	6.725	0.015	1.060	1171507	9.60		96.0	75200	
69 11ClFOS										
631.00 > 451.00	6.740	6.725	0.015	1.118	815721	4.90		82.3	39435	
D 72 13C-10:2 FTCA										
579.00 > 494.00	6.753	6.737	0.015	1.062	112459	18.6		186	7213	
71 10:2 FTCA										
577.00 > 493.00	6.753	6.737	0.015	1.000	36120	3.48		54.3	2295	
73 Perfluorododecanoic acid										
613.00 > 569.00	6.862	6.850	0.012	0.999	815541	5.37	Target=5.13	83.8	35432	
613.00 > 169.00	6.862	6.850	0.012	0.999	151319		5.39(2.56-7.69)		10996	
D 74 13C2-PFDoDA										
615.00 > 570.00	6.872	6.850	0.022	1.081	1493113	14.2		142	108771	
D 76 d7-N-MeFOSE-M										
623.00 > 59.00	6.882	6.860	0.022	1.082	269018	12.3		123	11718	
77 N-MeFOSE-M										
616.00 > 59.00	6.882	6.870	0.012	1.000	151543	5.27		82.4	8330	
75 10:2 FTS										
627.00 > 607.00	6.882	6.870	0.012	1.081	158627	5.04	Target=0.83	81.7	11544	
627.00 > 81.00	6.882	6.870	0.012	1.081	194189		0.82(0.42-1.25)		14204	
D 79 d3-NMePFOSA										
515.00 > 169.00	6.893	6.880	0.013	1.084	70112	4.99		49.9	1418	
78 NMeFOSA										
512.00 > 169.00	6.893	6.880	0.013	1.000	45671	5.80		90.7	3339	
D 81 d9-N-EtFOSE-M										
639.00 > 59.00	7.037	7.013	0.024	1.107	273664	11.0		110	9839	
82 N-EtFOSE-M										
630.00 > 59.00	7.048	7.024	0.024	1.002	163985	5.76		90.0	8692	

Report Date: 23-Feb-2022 11:52:58 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-63.d
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
80 PFDoS										
699.00 > 80.00	7.037	7.024	0.013	1.167	537869	4.50		72.7	28695	
D 83 d5-NEtPFOSA										
531.00 > 169.00	7.058	7.035	0.023	1.110	62745	4.68		46.8	3366	
84 N-EtFOSA-M										
526.00 > 169.00	7.058	7.045	0.013	1.000	41240	6.21		97.0	2250	
85 Perfluorotridecanoic acid										
663.00 > 619.00	7.068	7.056	0.012	1.029	603207	5.41	Target=4.34	84.5	32937	
663.00 > 169.00	7.068	7.056	0.012	1.029	145983		4.13(2.17-6.51)		10515	
86 Perfluorotetradecanoic acid										
713.00 > 669.00	7.249	7.226	0.023	1.000	590436	5.38	Target=5.08	84.1	20222	
713.00 > 169.00	7.237	7.226	0.011	0.998	113442		5.20(2.54-7.61)		7944	
D 87 13C2 PFTeDA										
715.00 > 670.00	7.249	7.234	0.015	1.140	1195898	13.5		135	61280	
88 Perfluorohexadecanoic acid										
813.00 > 769.00	7.551	7.534	0.017	1.042	626261	5.10	Target=9.01	79.7	32500	
813.00 > 169.00	7.543	7.534	0.009	1.041	69662		8.99(4.50-13.51)		6027	
89 Perfluorooctadecanoic acid										
913.00 > 869.00	7.777	7.770	0.007	1.073	225110	4.41	Target=7.79	68.9	25332	
913.00 > 169.00	7.771	7.770	0.001	1.072	29161		7.72(3.89-11.68)		3231	

QC Flag Legend

Processing Flags

Reagents:

PFC_IS_MOD_00273 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 23-Feb-2022 11:52:58 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30733\20220222-50963.b\22FEB22-63.d

Injection Date: 23-Feb-2022 09:13:29 Instrument ID: 30733

Lims ID: LCSD 410-226178/3-A

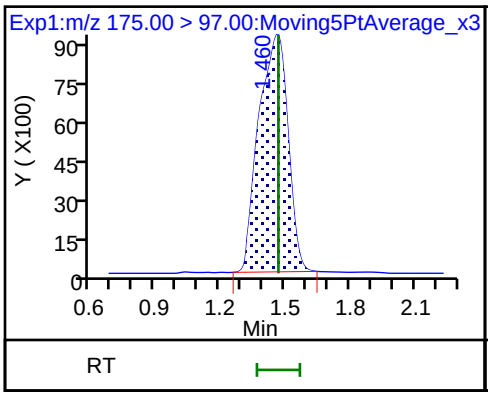
Client ID:

Operator ID: US19_USR_INS20260 ALS Bottle#: 51 Worklist Smp#: 59

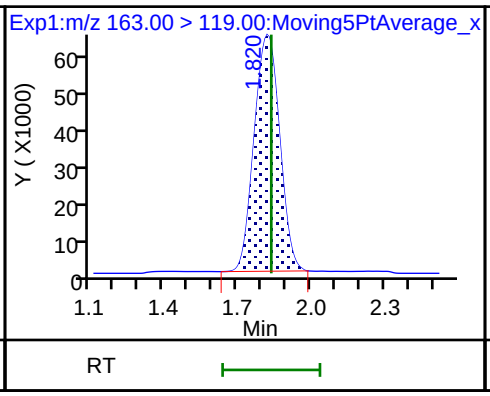
Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: PFAS_30733_XList_2 Limit Group: LC - PFC IDA

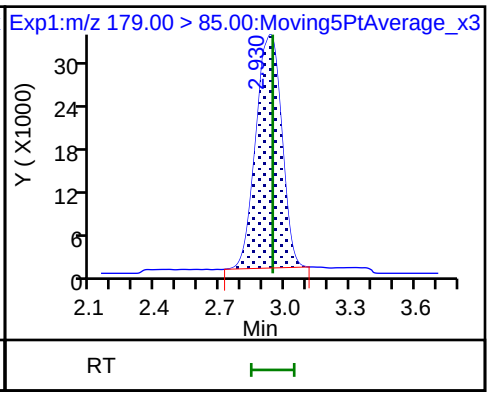
107 MTP



1 PPF Acid



96 PFMOAA



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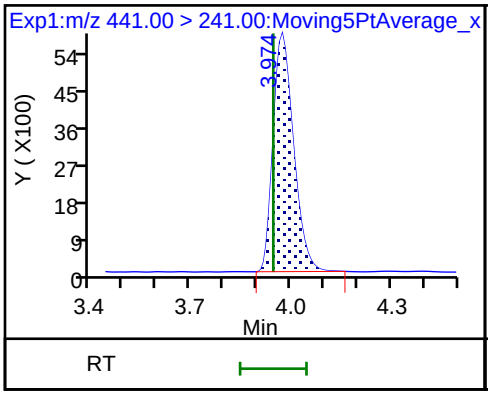
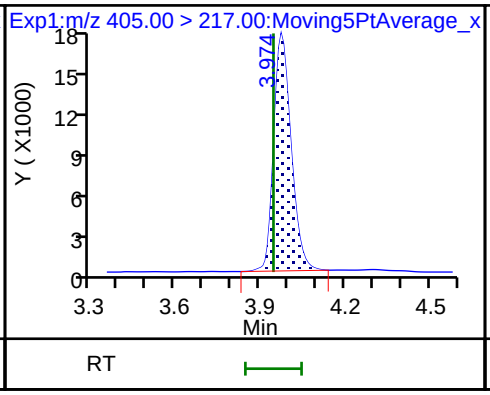
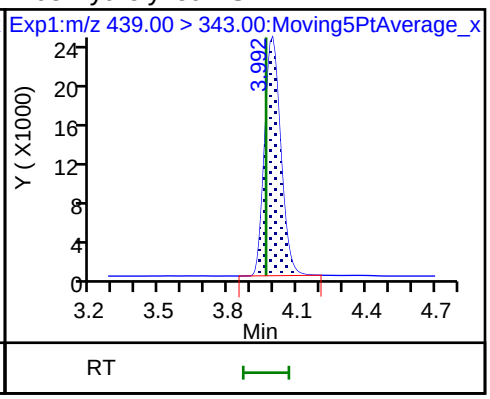


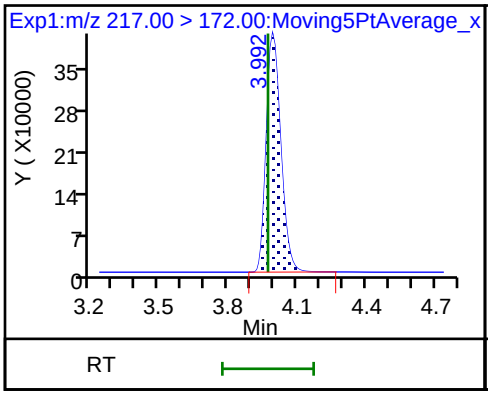
99 R-EVE



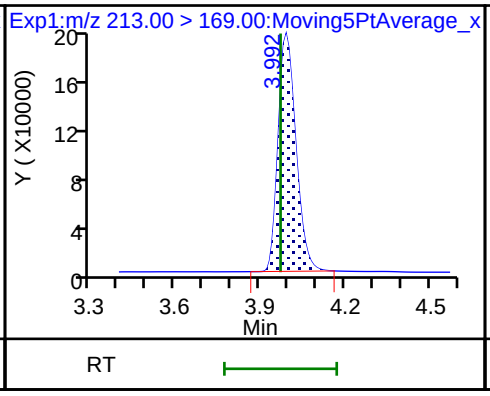
105 Hydrolyzed PSDA



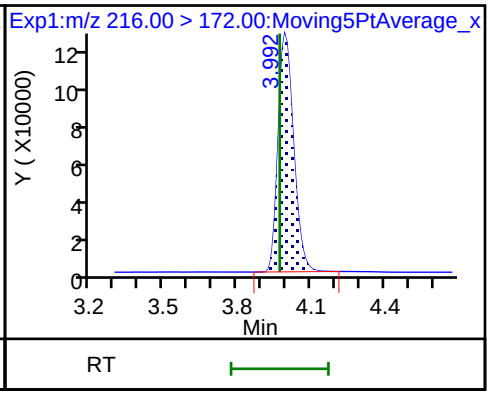
D 3 13C4 PFBA



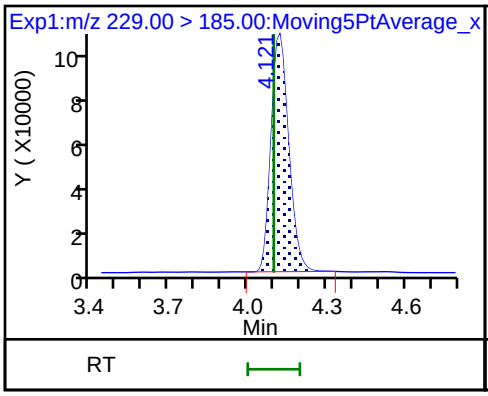
2 Perfluorobutanoic acid



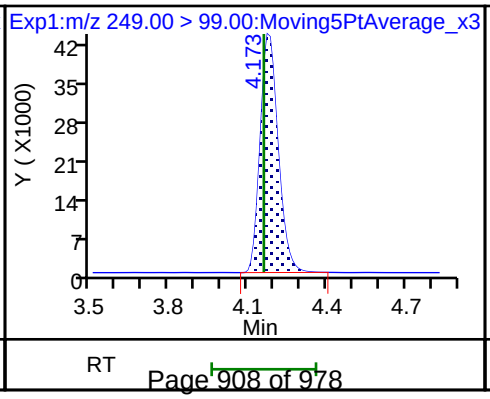
* 4 13C3-PFBA



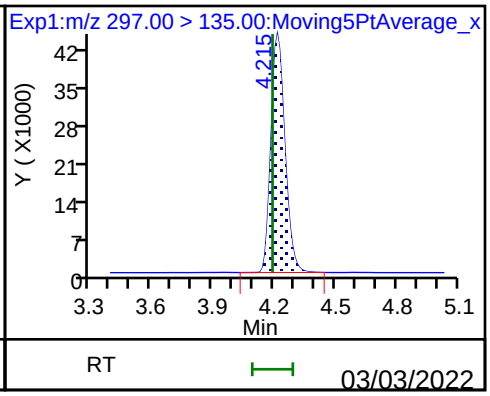
102 PMPA



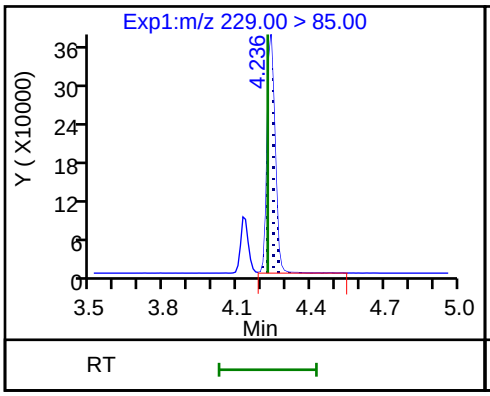
5 PFPrS



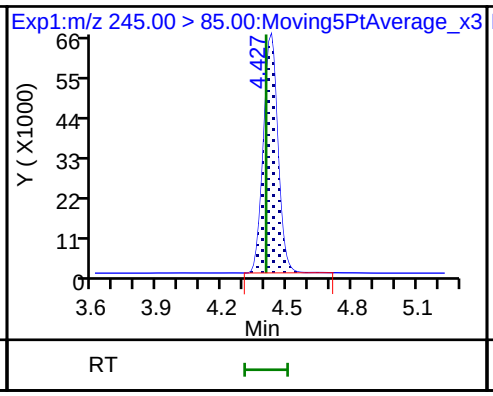
103 NVHOS



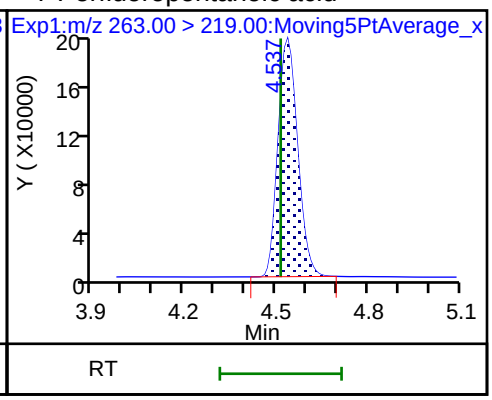
6 PFECA F



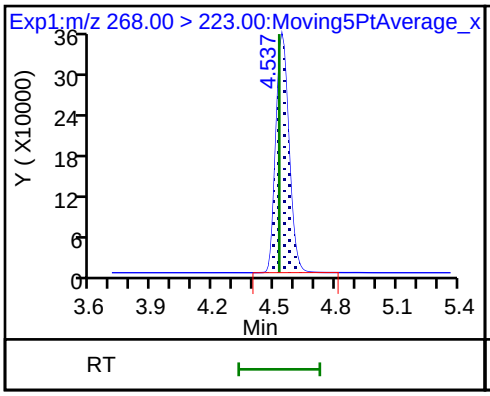
92 PFO2HxA



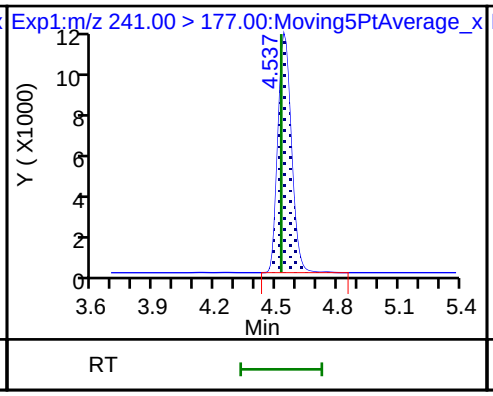
7 Perfluoropentanoic acid



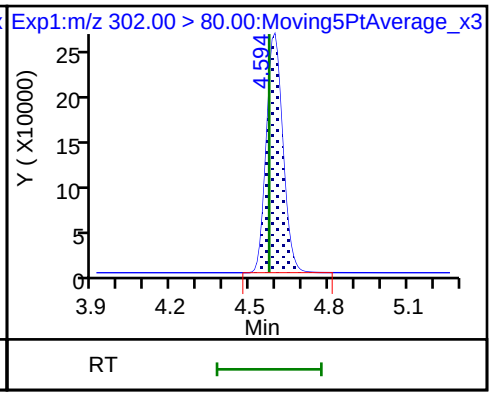
D 8 13C5 PFPeA



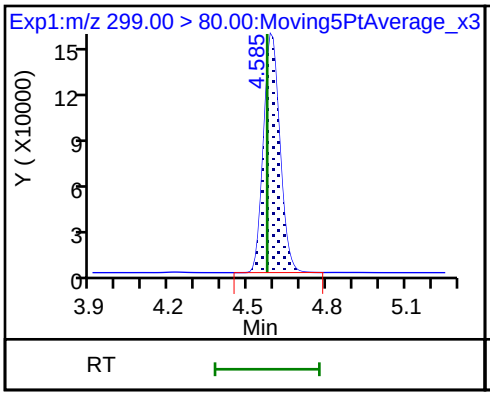
9 3:3 FTCA



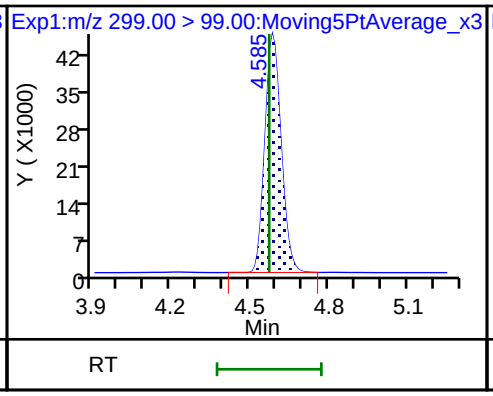
D 11 13C3 PFBS



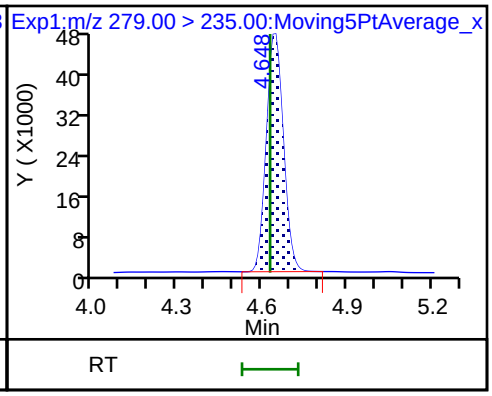
10 Perfluorobutanesulfonic acid



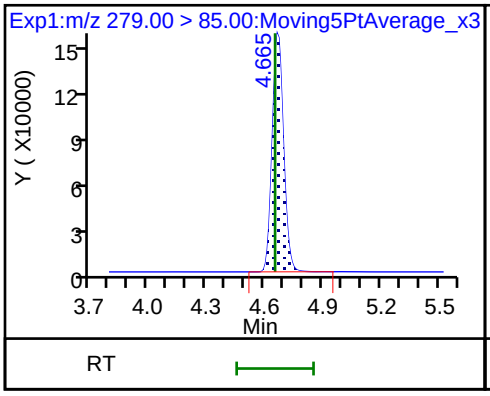
10 Perfluorobutanesulfonic acid



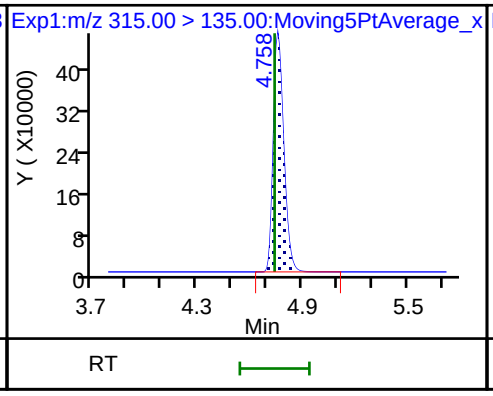
91 PEPA



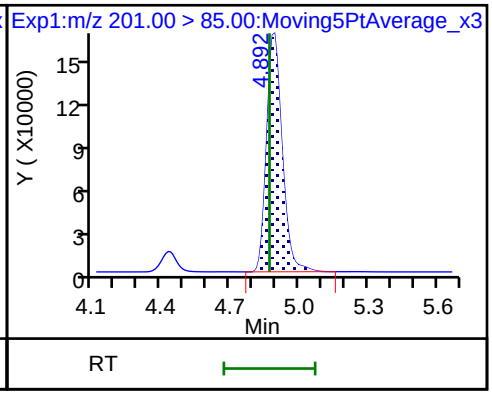
12 PFECA A



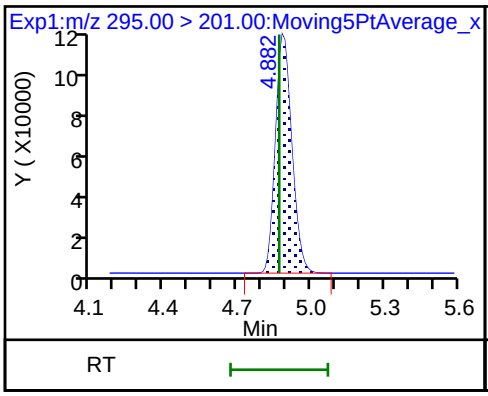
13 PES



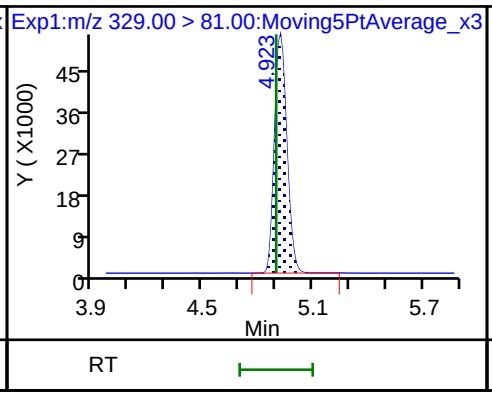
14 PFECA B



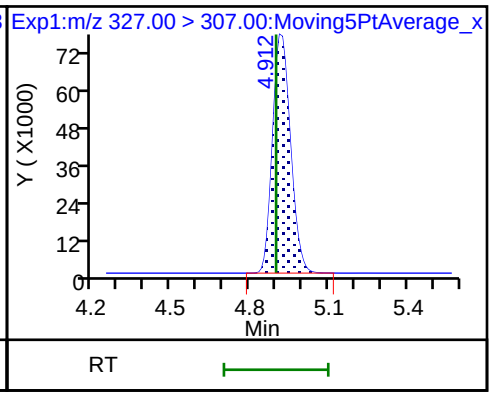
14 PFECA B



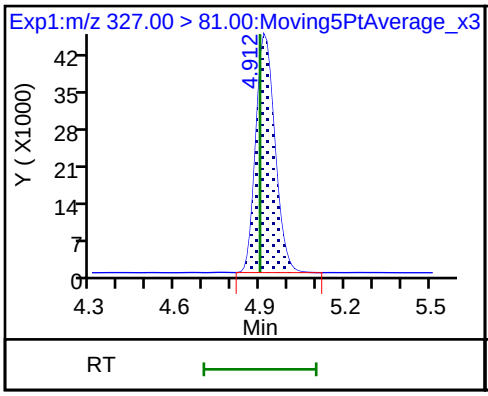
D 16 M2-4:2 FTS



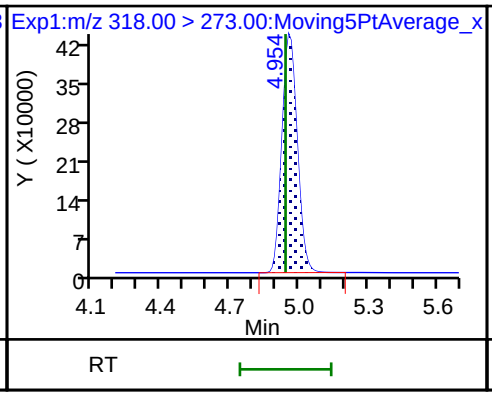
15 4:2 FTS



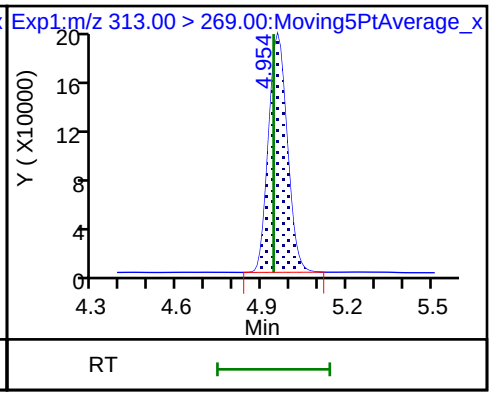
15 4:2 FTS



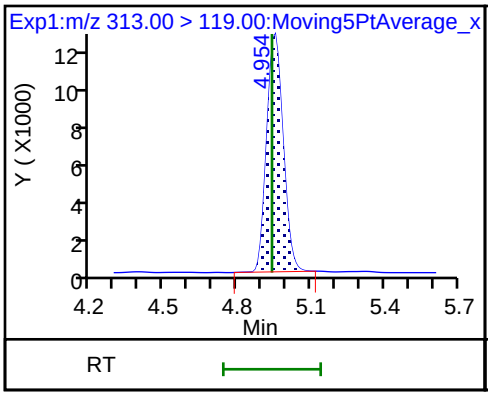
D 19 13C5 PFHxA



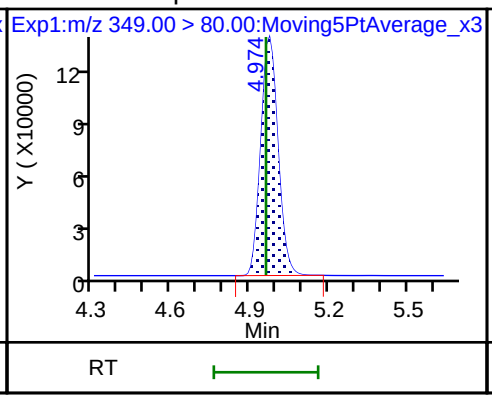
17 Perfluorohexanoic acid



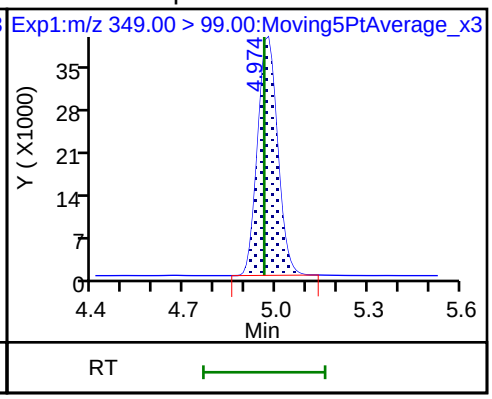
17 Perfluorohexanoic acid



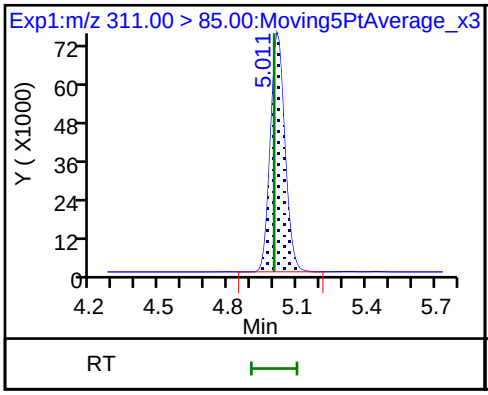
20 Perfluoropentanesulfonic acid



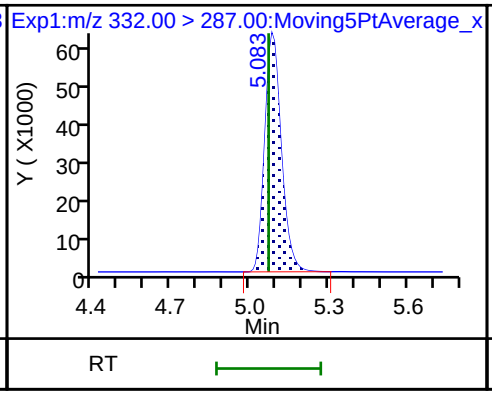
20 Perfluoropentanesulfonic acid



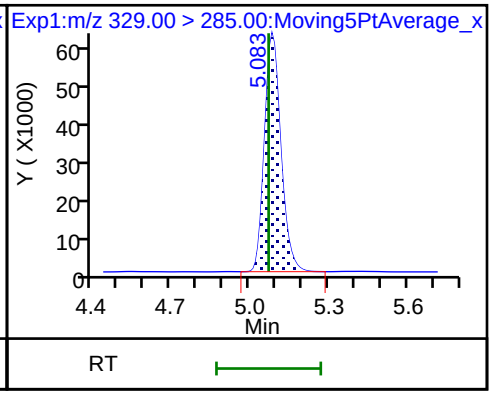
93 PFO3OA



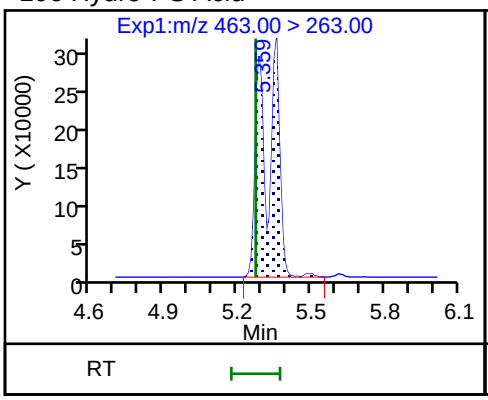
D 22 13C3 HFPO-DA



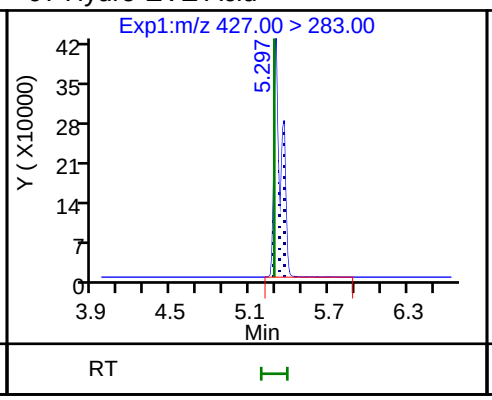
21 HFPO-DA



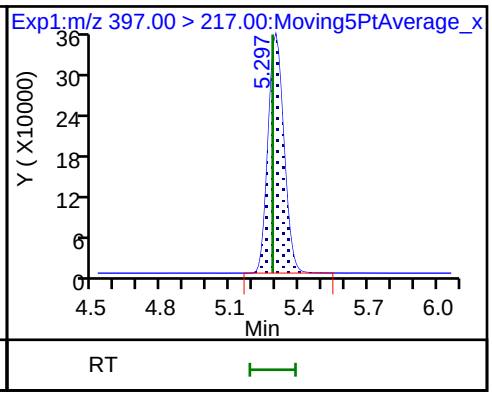
106 Hydro-PS Acid



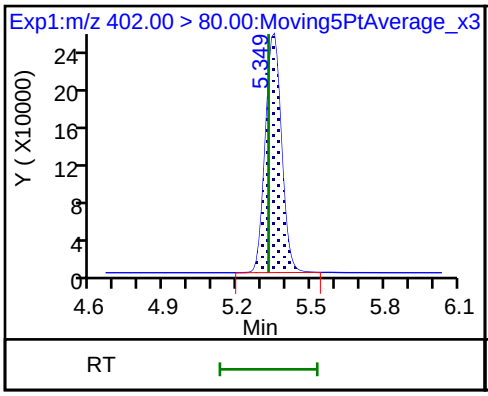
97 Hydro-EVE Acid



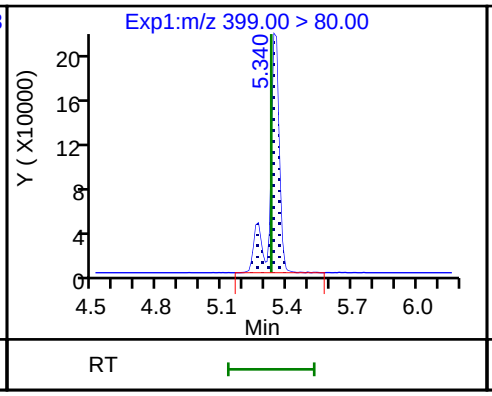
94 R-PSDCA



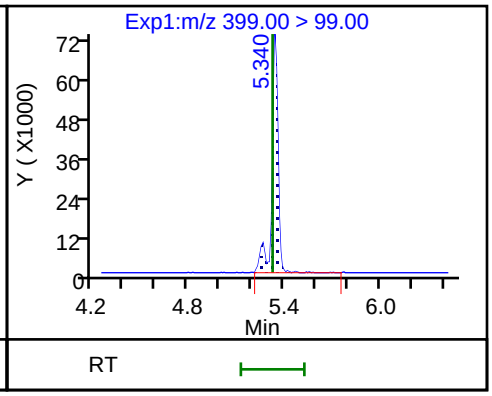
D 25 13C3 PFHxS



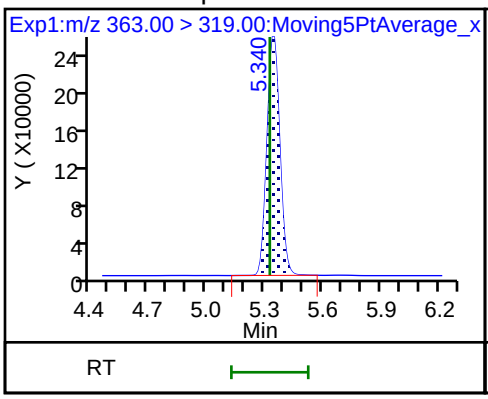
26 Perfluorohexanesulfonic acid



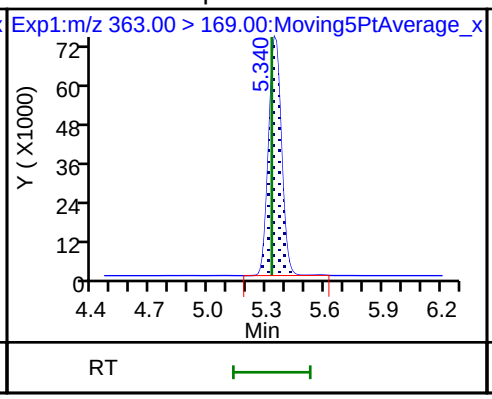
26 Perfluorohexanesulfonic acid



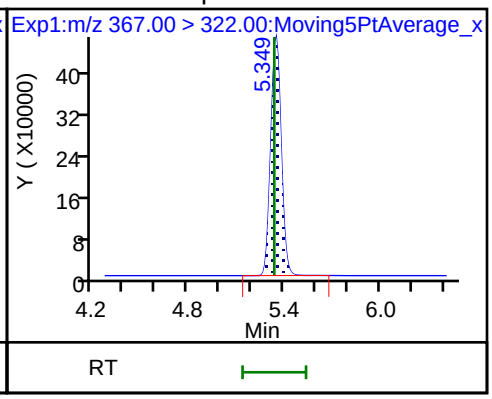
23 Perfluoroheptanoic acid



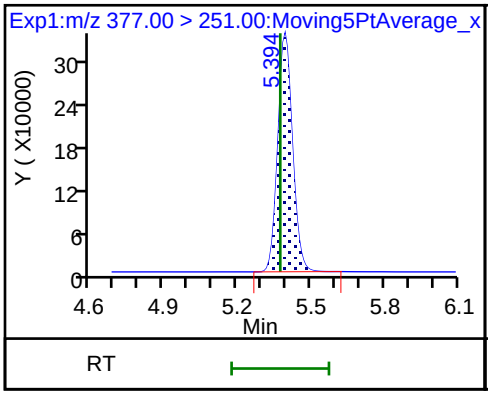
23 Perfluoroheptanoic acid



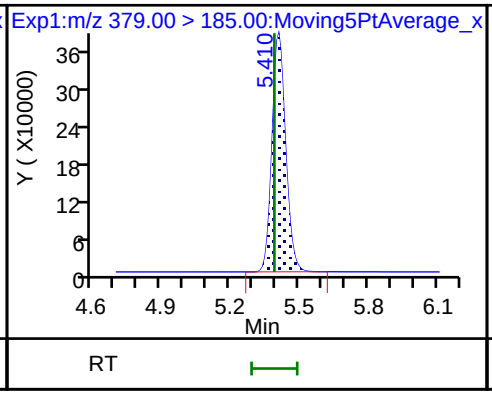
D 24 13C4 PFHpA



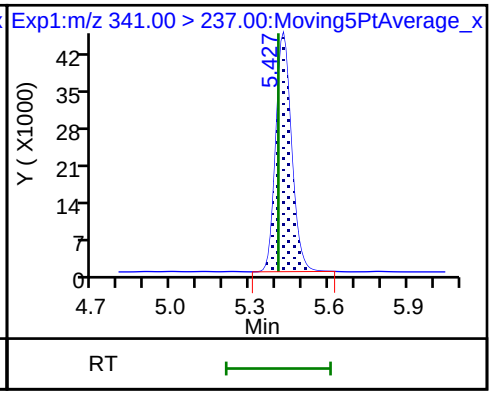
27 DONA



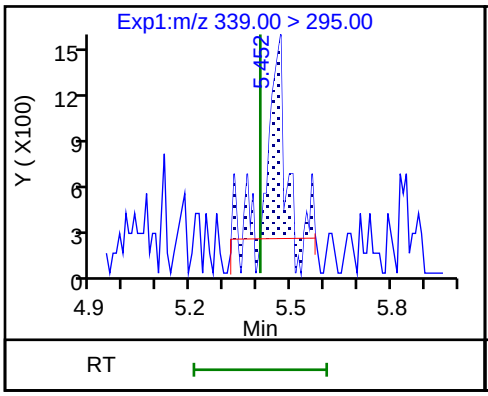
98 PFECA G



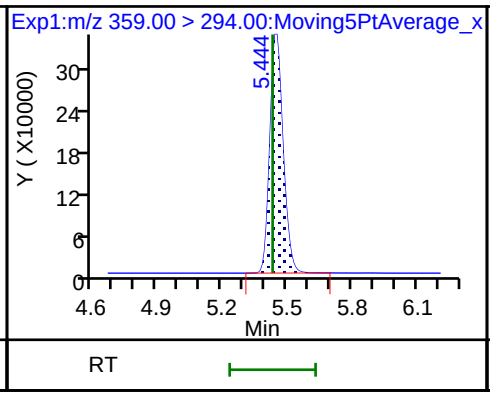
28 5:3 FTCA



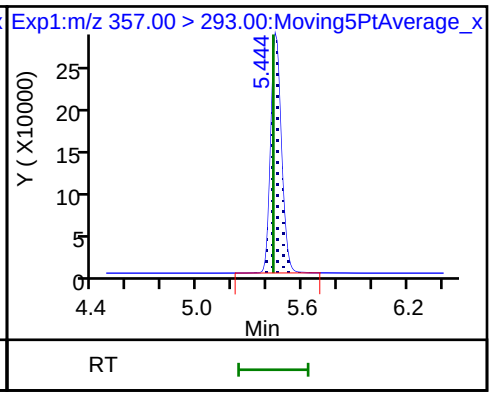
28 5:3 FTCA



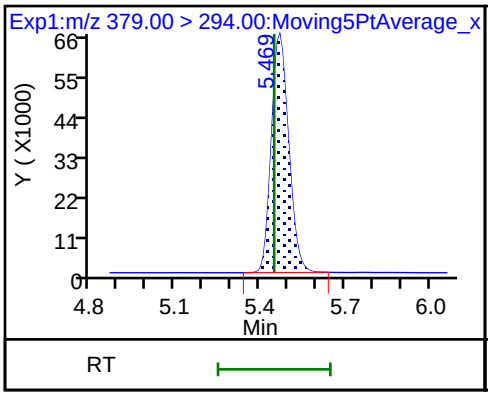
D 30 13C-6:2 FTUCA



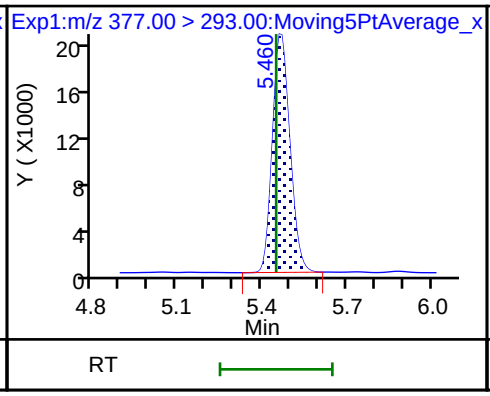
29 6:2 FTUCA



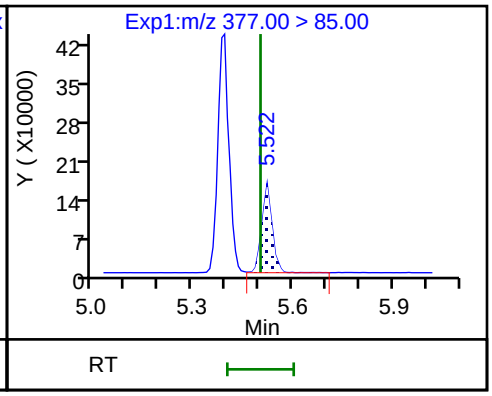
D 31 13C-6:2 FTCA



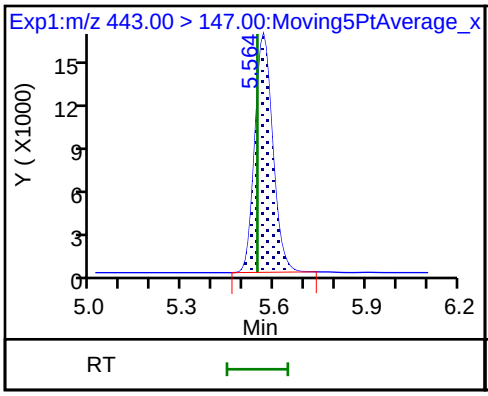
32 6:2 FTCA



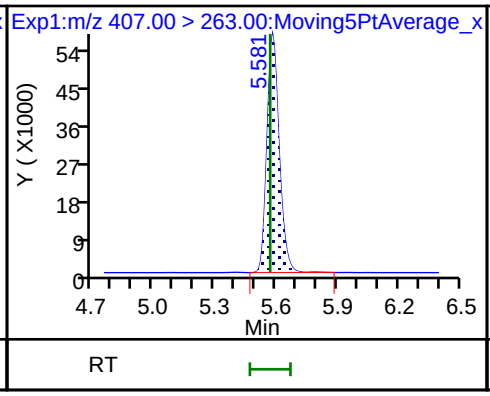
95 PFO4DA



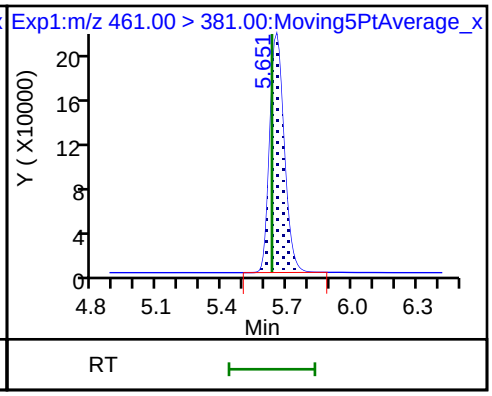
104 PS Acid



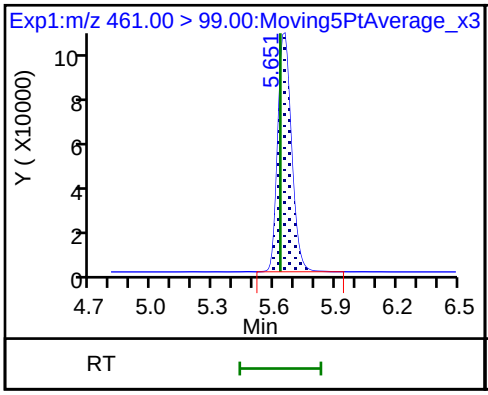
90 EVE Acid



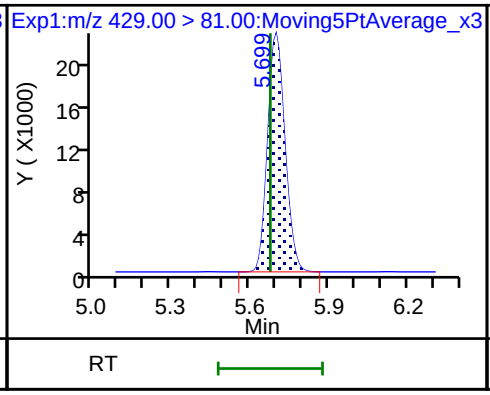
33 PFECHS



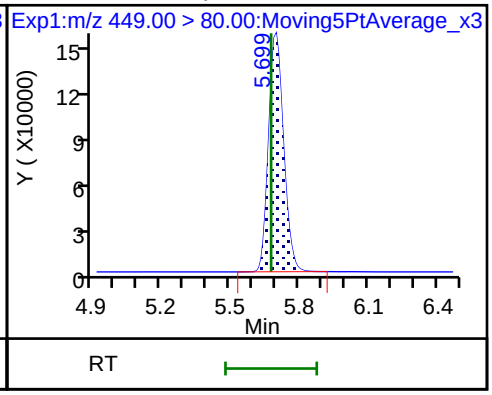
33 PFECHS



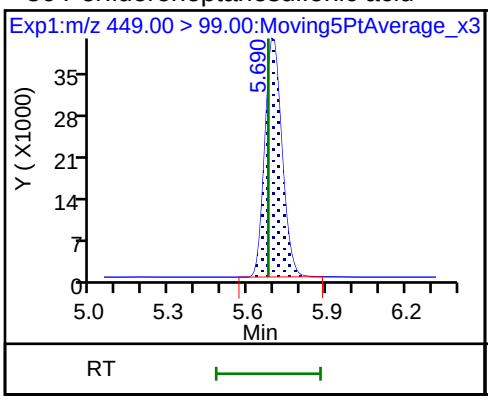
D 35 M2-6:2 FTS



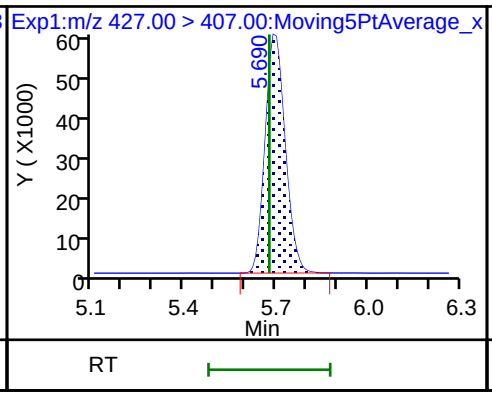
36 Perfluoroheptanesulfonic acid



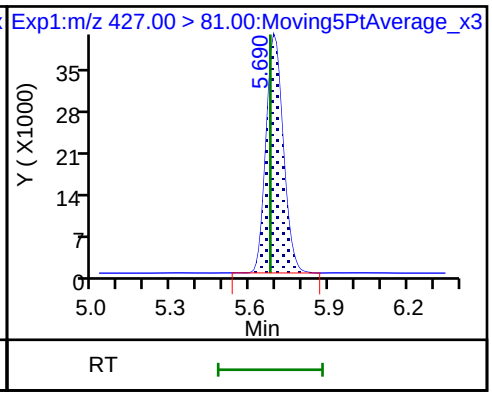
36 Perfluoroheptanesulfonic acid



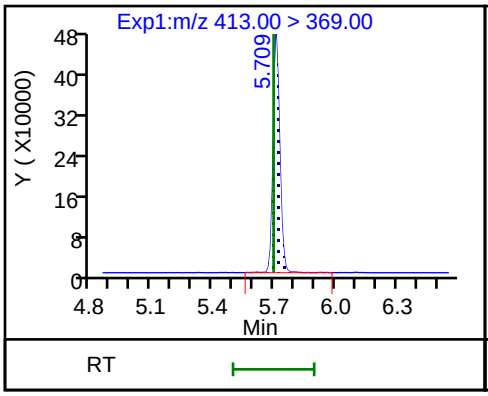
34 6:2 FTS



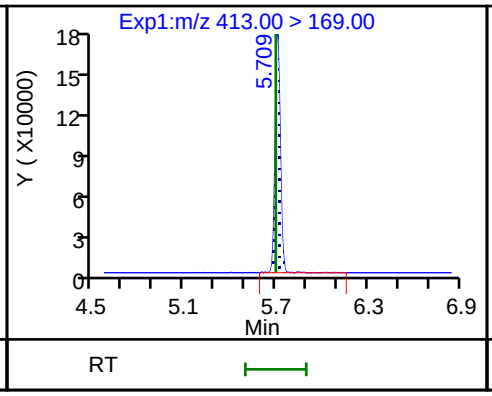
34 6:2 FTS



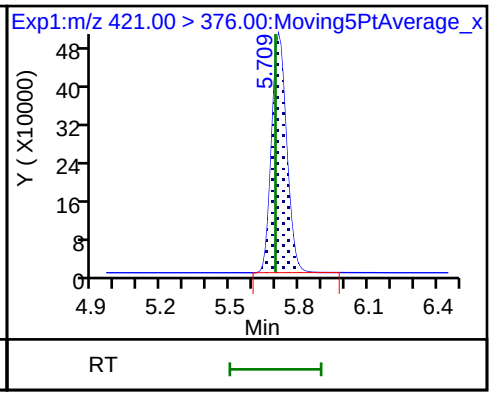
40 Perfluorooctanoic acid



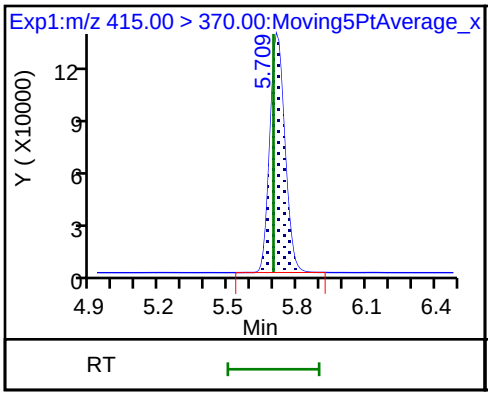
40 Perfluorooctanoic acid



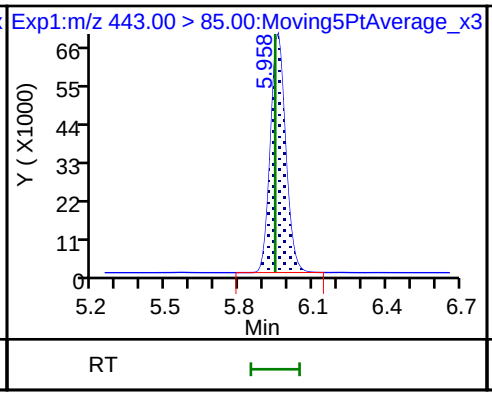
D 37 13C8 PFOA



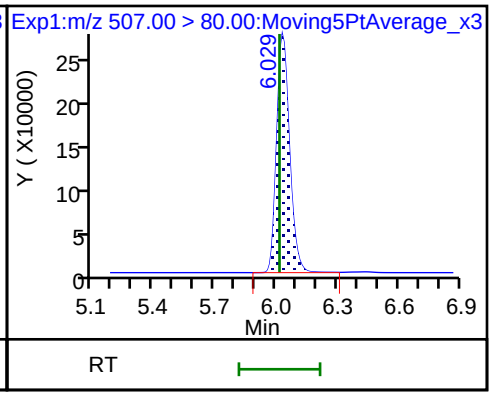
* 38 13C2 PFOA



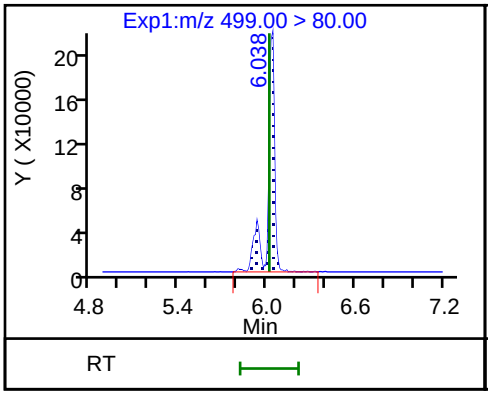
101 TAF



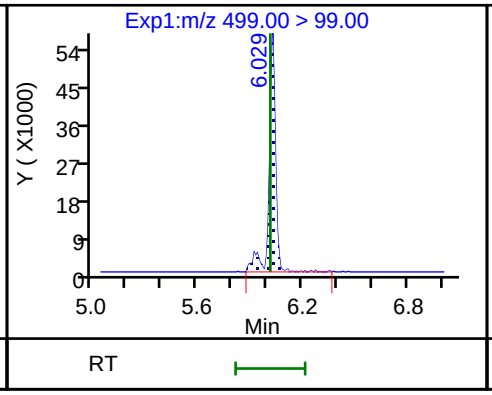
D 41 13C8 PFOS



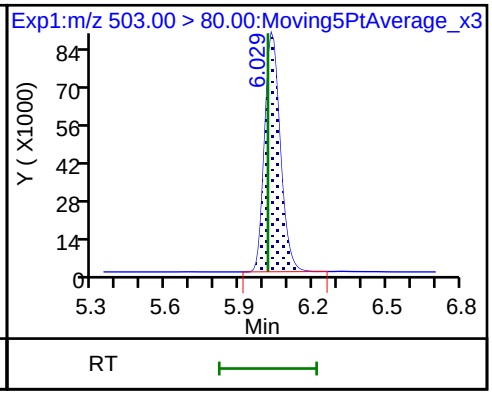
43 Perfluorooctanesulfonic acid



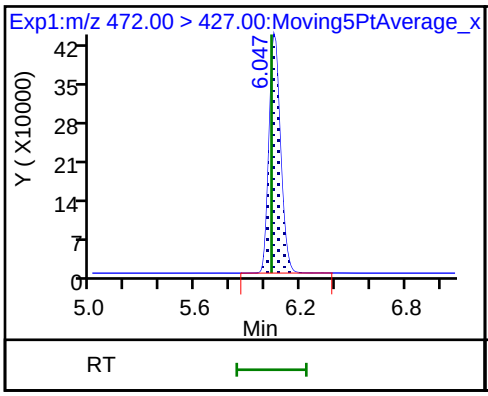
43 Perfluorooctanesulfonic acid



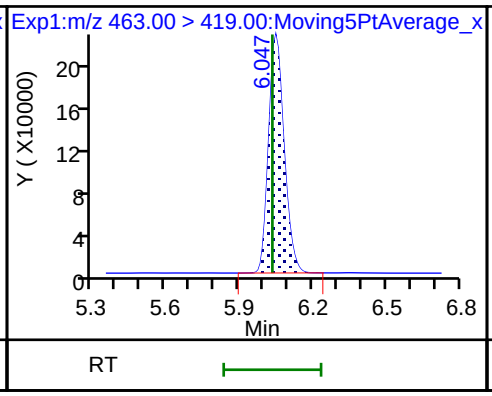
* 42 13C4 PFOS



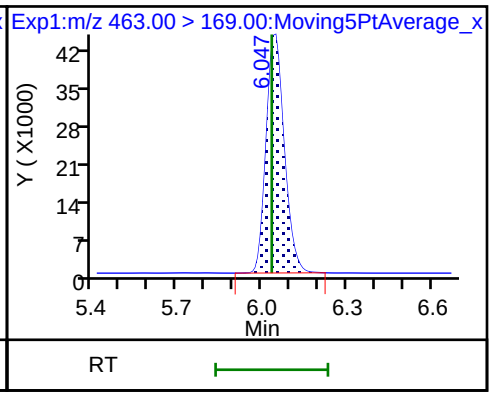
D 45 13C9 PFNA



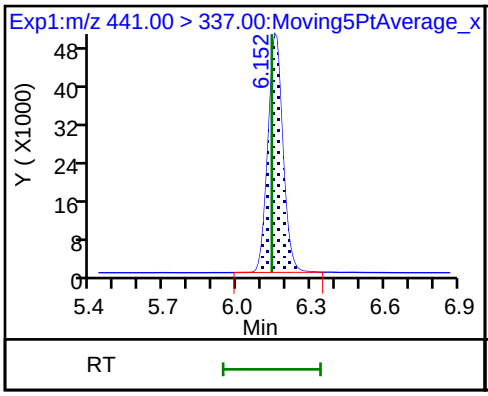
44 Perfluorononanoic acid



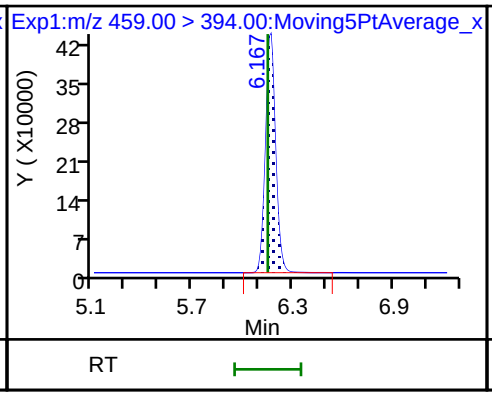
44 Perfluorononanoic acid



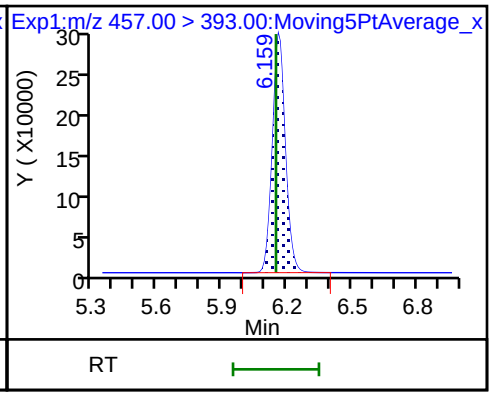
46 7:3 FTCA



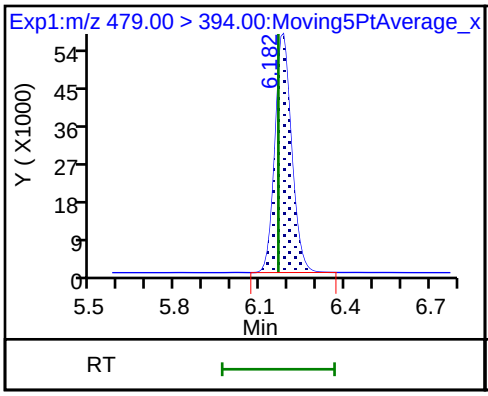
D 48 13C-8:2 FTUCA



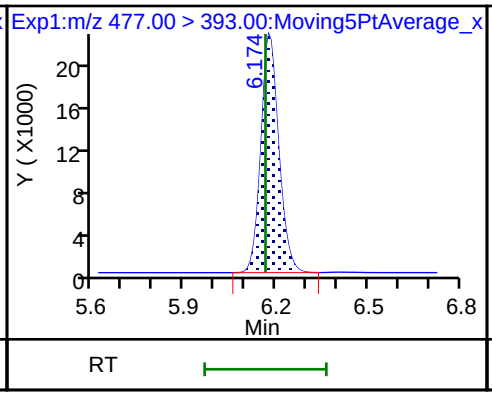
47 8:2 FTUCA



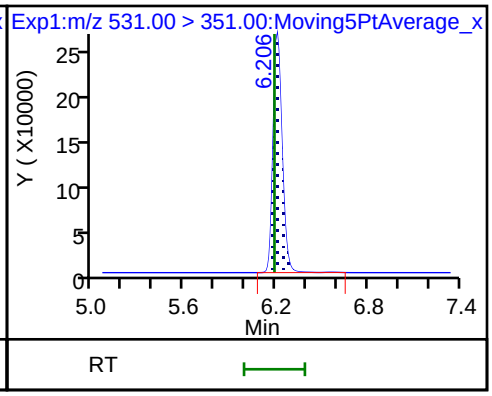
D 50 13C-8:2 FTCA



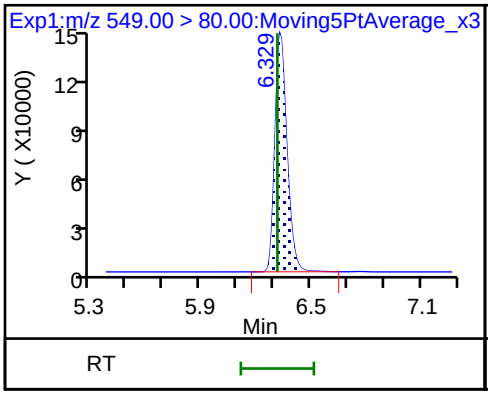
49 8:2 FTCA



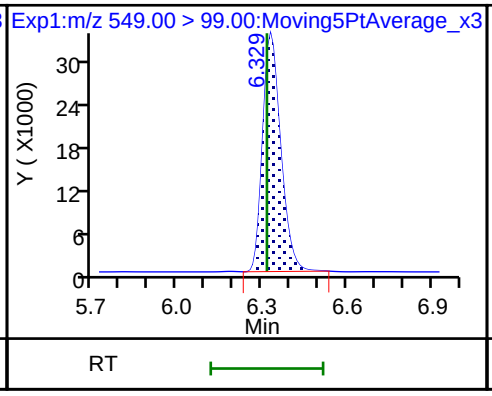
51 9ClFOS



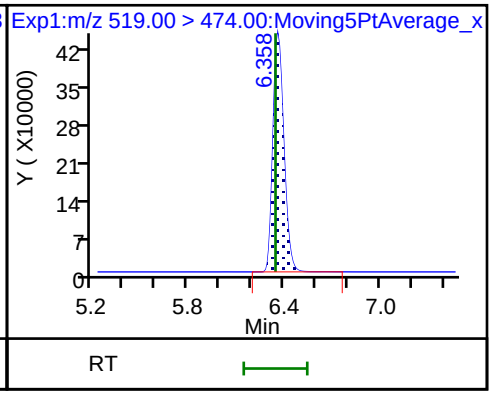
52 Perfluorononanesulfonic acid



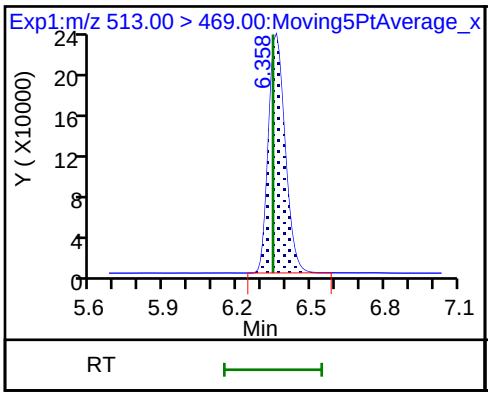
52 Perfluorononanesulfonic acid



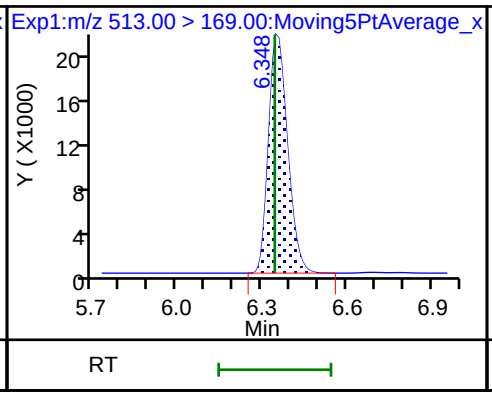
D 54 13C6 PFDA



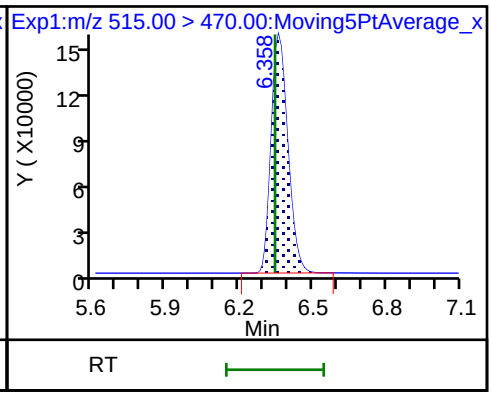
53 Perfluorodecanoic acid



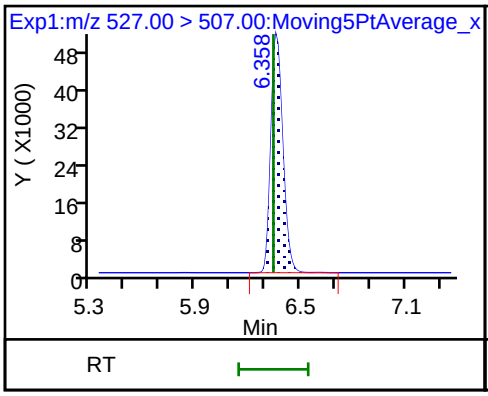
53 Perfluorodecanoic acid



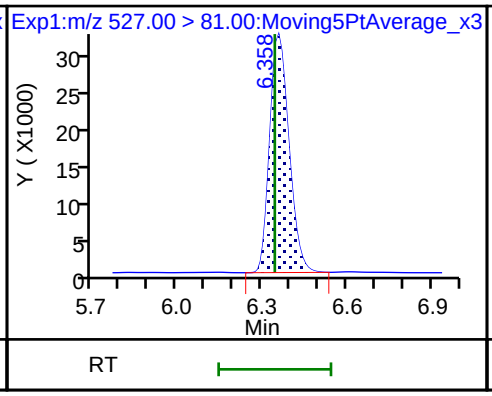
* 55 13C2 PFDA



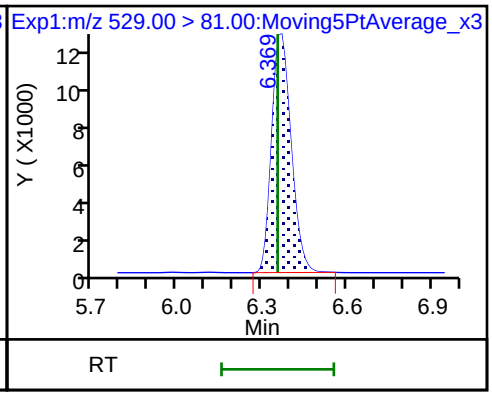
56 8:2 FTS



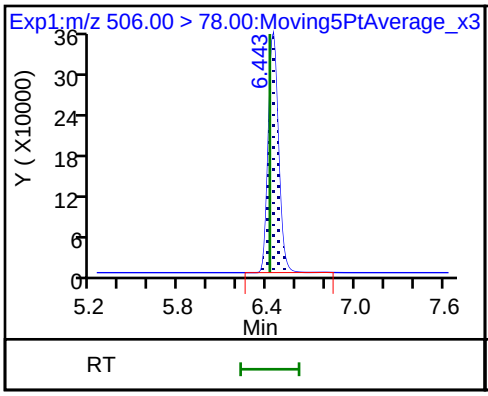
56 8:2 FTS



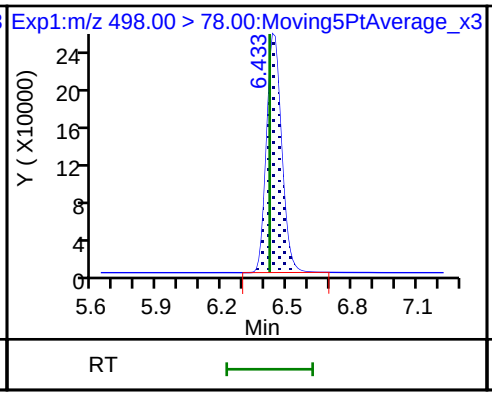
D 57 M2-8:2 FTS



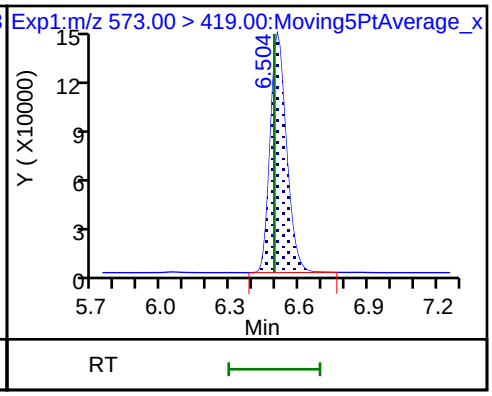
D 59 13C8 FOSA



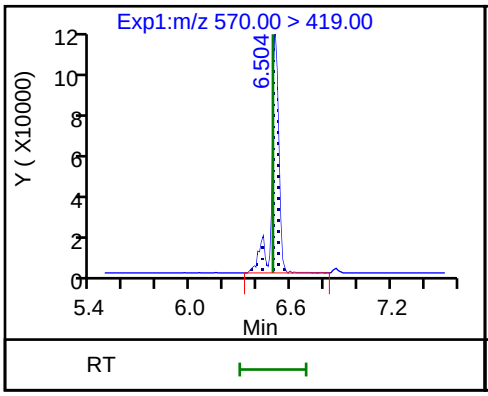
58 Perfluorooctanesulfonamide



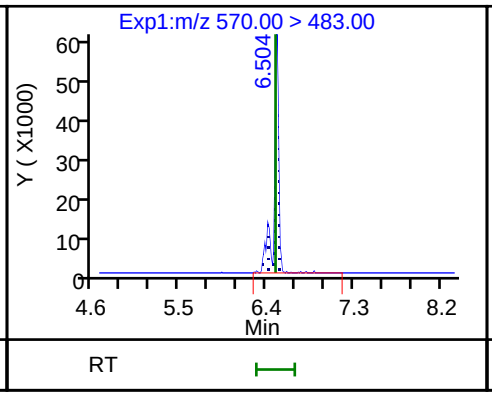
D 61 d3-NMeFOSAA



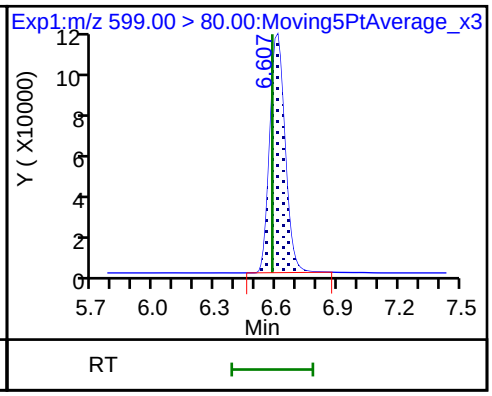
60 NMeFOSAA



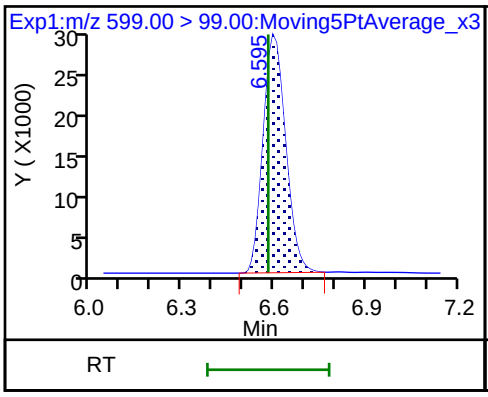
60 NMeFOSAA



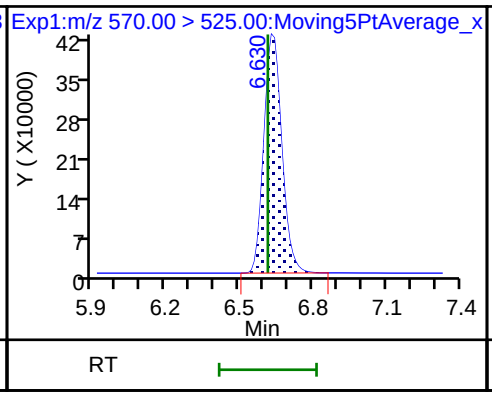
62 Perfluorodecanesulfonic acid



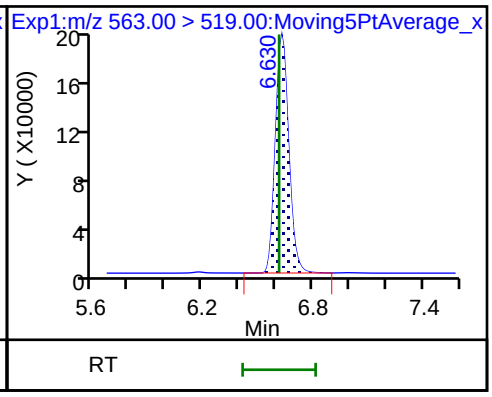
62 Perfluorodecanesulfonic acid



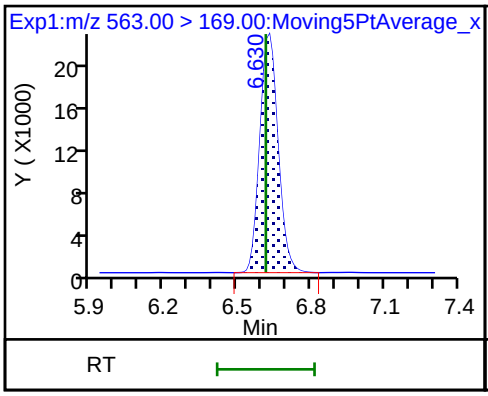
D 65 13C7 PFUnA



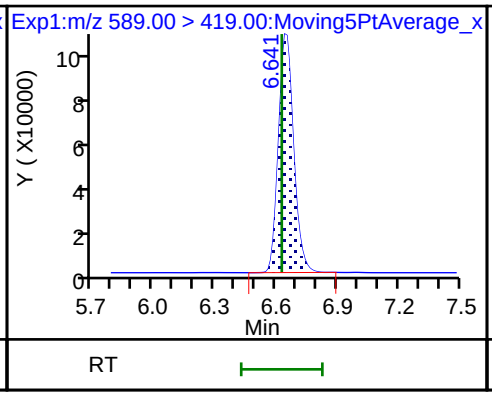
63 Perfluoroundecanoic acid



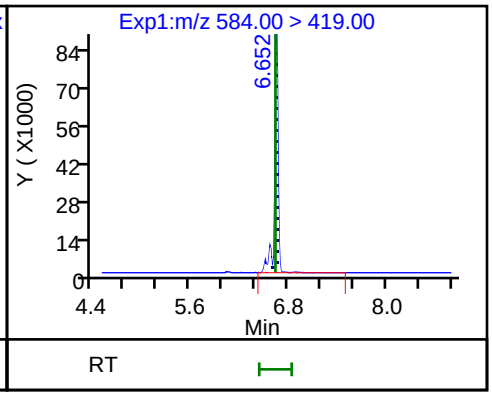
63 Perfluoroundecanoic acid



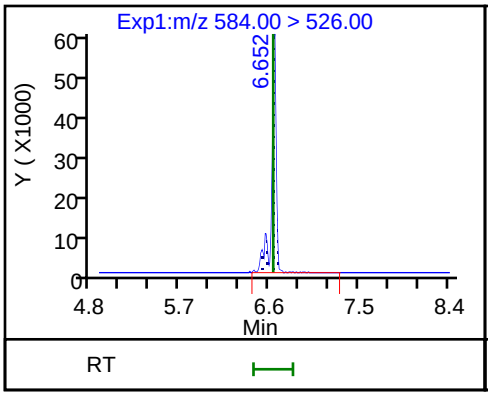
D 66 d5-NEtFOSAA



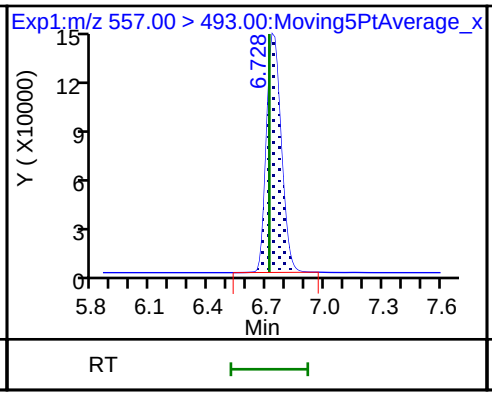
67 NEtFOSAA



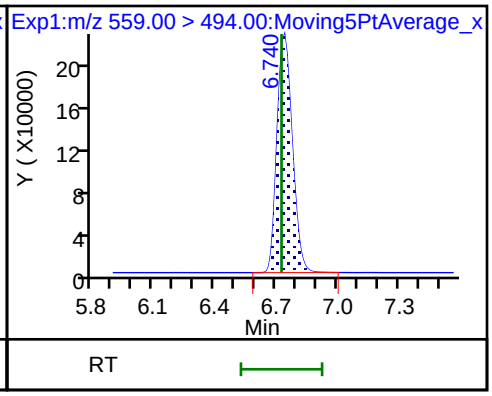
67 NEtFOSAA



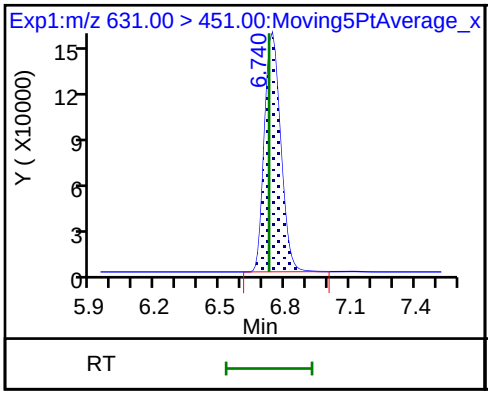
68 10:2 FTUCA



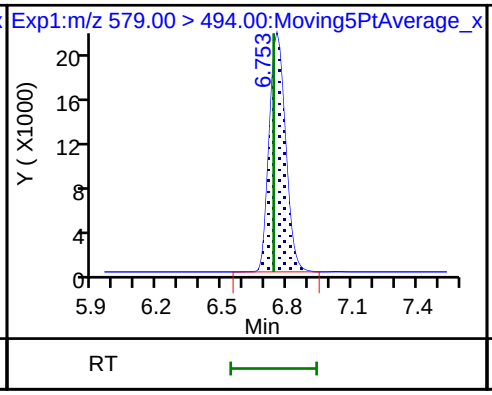
D 70 13C-10:2 FTUCA



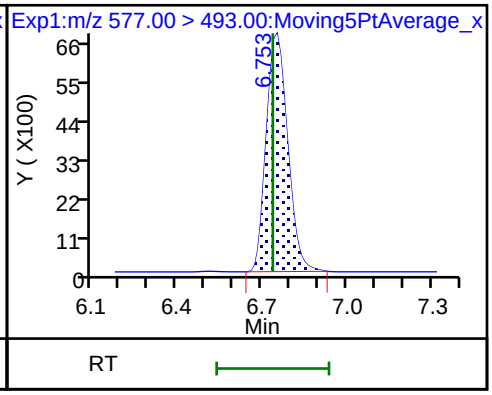
69 11ClFOS



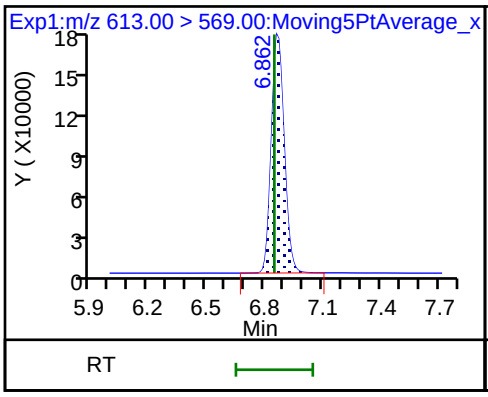
D 72 13C-10:2 FTCA



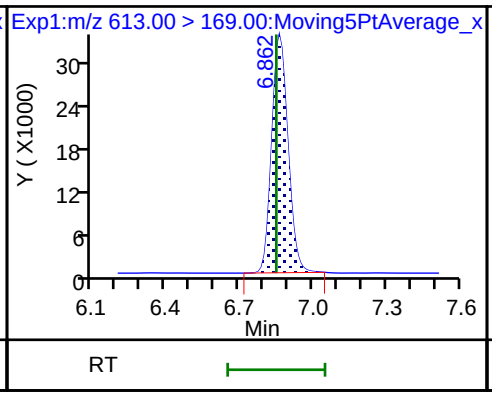
71 10:2 FTCA



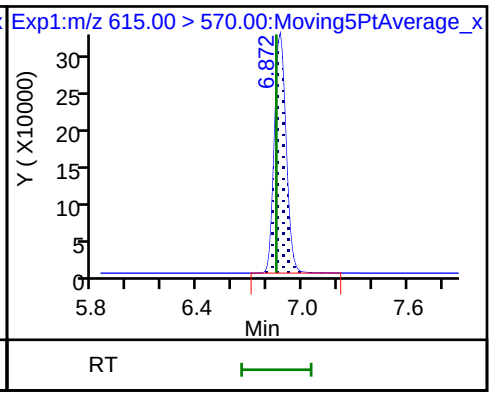
73 Perfluorododecanoic acid



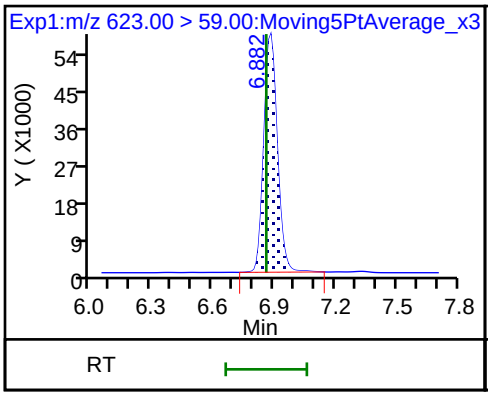
73 Perfluorododecanoic acid



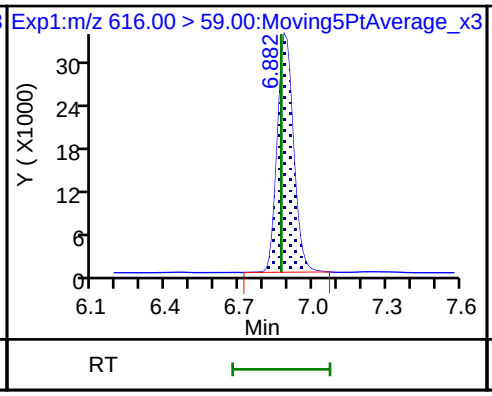
D 74 13C2-PFDoDA



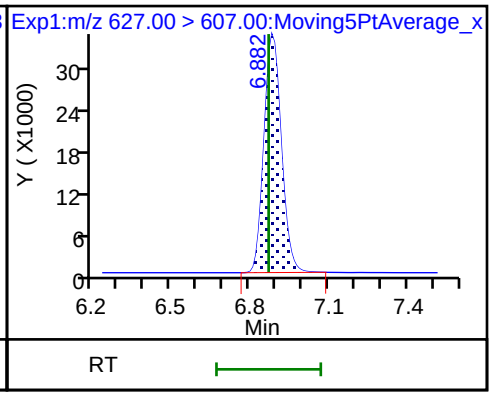
D 76 d7-N-MeFOSE-M



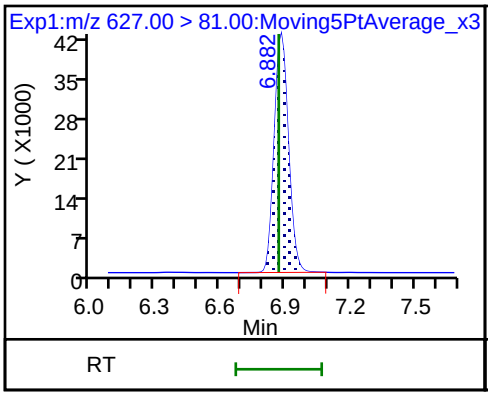
77 N-MeFOSE-M



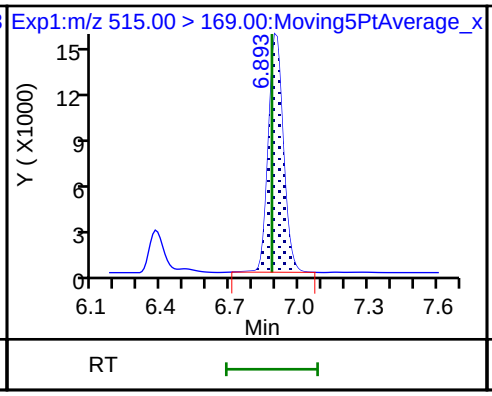
75 10:2 FTS



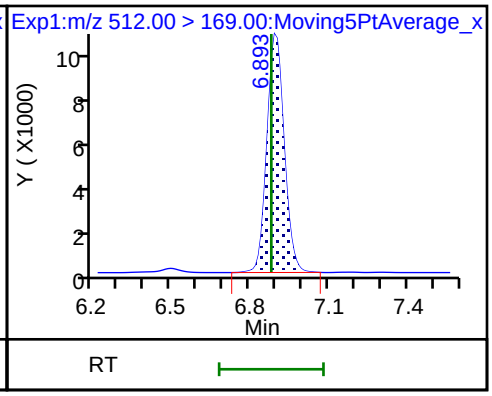
75 10:2 FTS



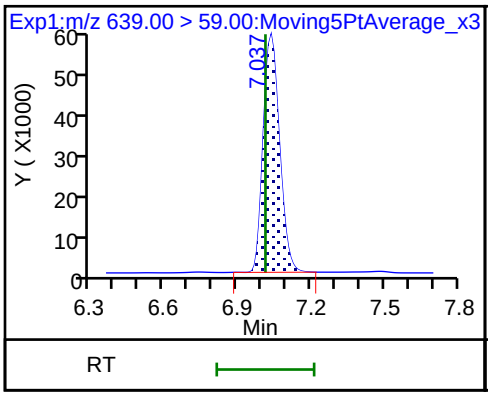
D 79 d3-NMePFOSA



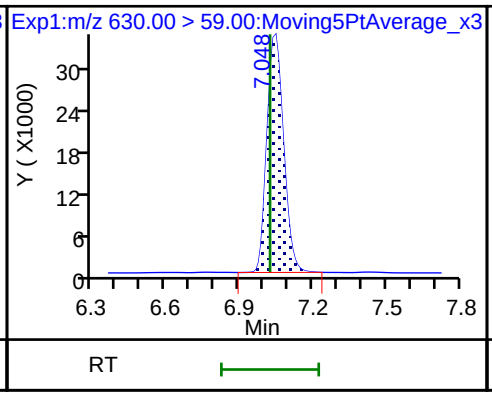
78 NMeFOSA



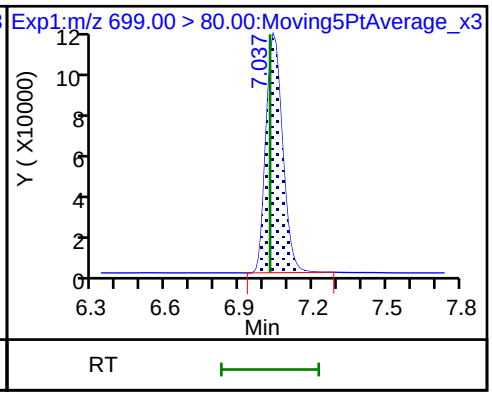
D 81 d9-N-EtFOSE-M



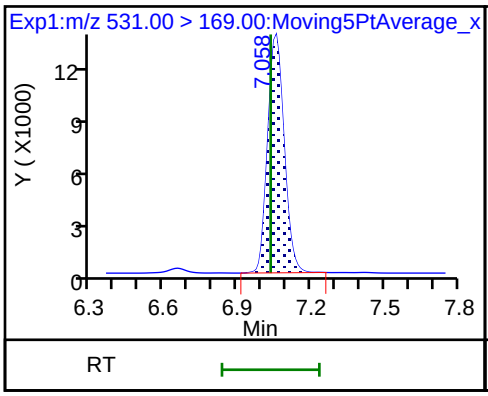
82 N-EtFOSE-M



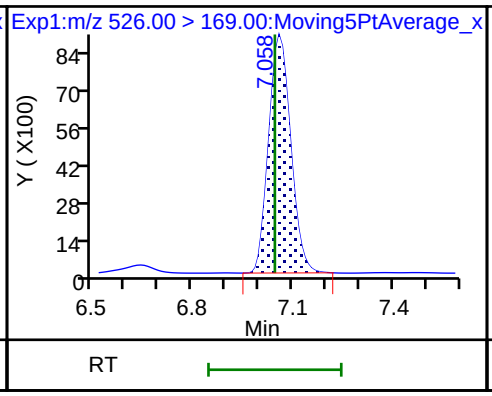
80 PFDoS



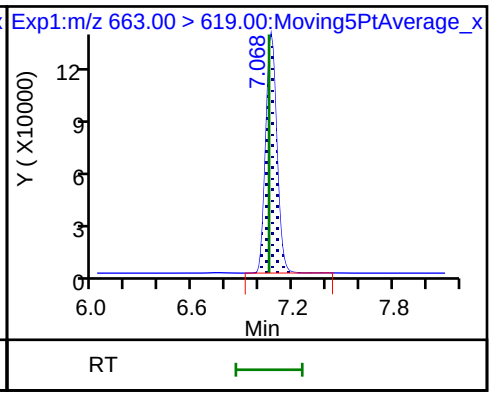
D 83 d5-NEtPFOSA



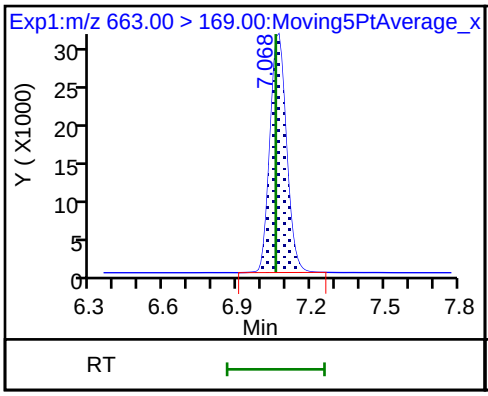
84 N-EtFOSA-M



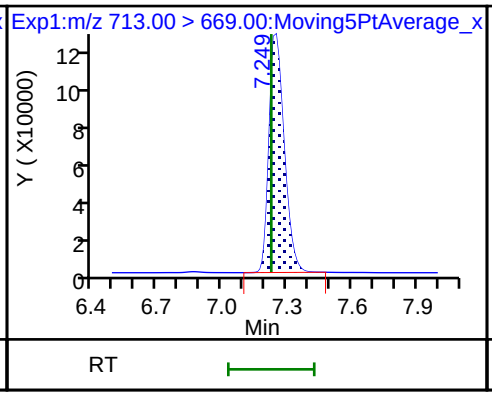
85 Perfluorotridecanoic acid



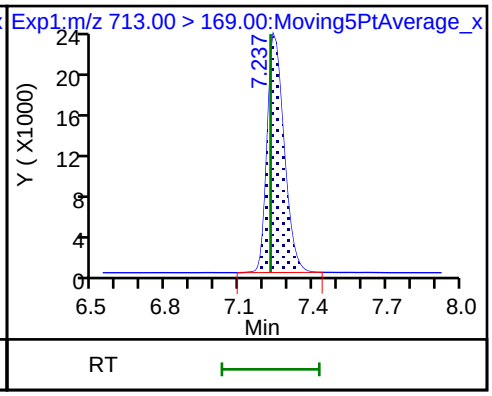
85 Perfluorotridecanoic acid



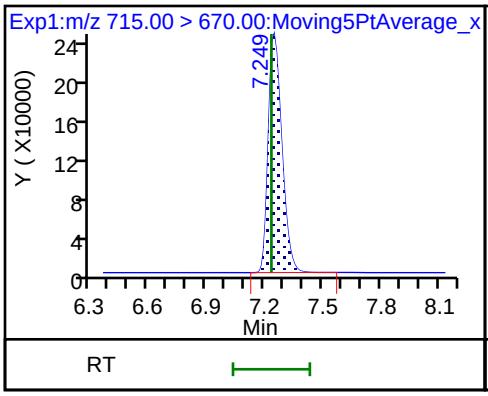
86 Perfluorotetradecanoic acid



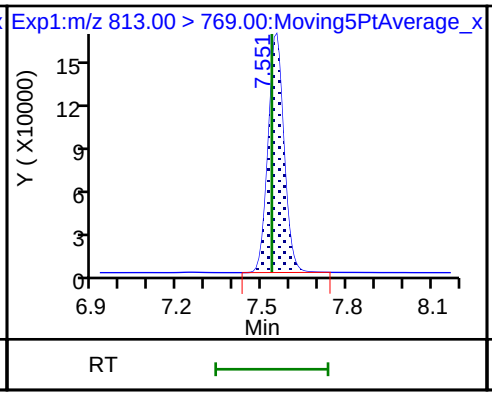
86 Perfluorotetradecanoic acid



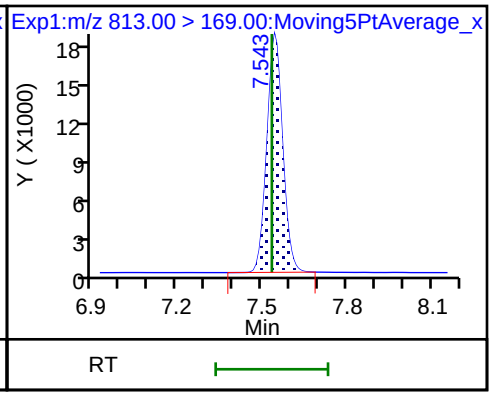
D 87 13C2 PFTeDA



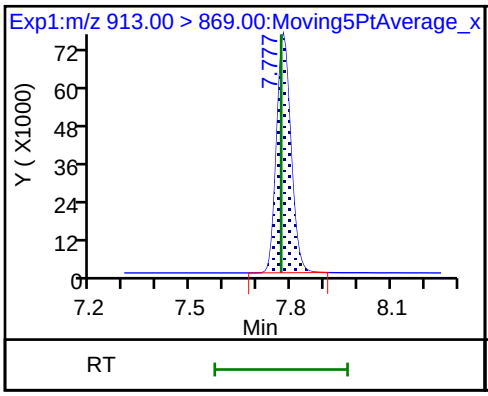
88 Perfluorohexadecanoic acid



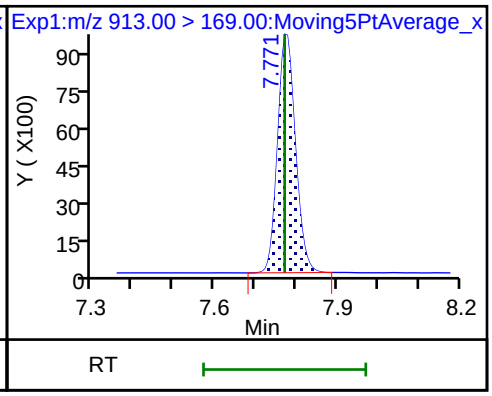
88 Perfluorohexadecanoic acid



89 Perfluorooctadecanoic acid



89 Perfluorooctadecanoic acid



FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID: Import-1-20220216 MS
Lab Sample ID: 410-73309-1 MS
Matrix: Solid
Lab File ID: 22MAR02-16.d
Analysis Method: 537 IDA
Date Collected: 02/16/2022 12:20
Extraction Method: SHAKE
Date Extracted: 03/01/2022 07:26
Sample wt/vol: 10.03(g)
Date Analyzed: 03/02/2022 11:11
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 4(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture: 3.5
GPC Cleanup:(Y/N) N
Analysis Batch No.: 229099
Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	3.00		0.062	0.021
375-85-9	Perfluoroheptanoic acid	3.04		0.062	0.021
335-67-1	Perfluorooctanoic acid	2.85		0.062	0.021
375-95-1	Perfluorononanoic acid	2.88		0.062	0.021
335-76-2	Perfluorodecanoic acid	2.80		0.062	0.021
72629-94-8	Perfluorotridecanoic acid	2.90		0.062	0.021
376-06-7	Perfluorotetradecanoic acid	3.03		0.062	0.021
375-73-5	Perfluorobutanesulfonic acid	2.55		0.21	0.041
355-46-4	Perfluorohexanesulfonic acid	2.75		0.062	0.021
1763-23-1	Perfluorooctanesulfonic acid	2.64		0.062	0.021
2991-50-6	NEtFOSAA	2.65		0.21	0.021
2355-31-9	NMeFOSAA	2.75		0.21	0.021
375-92-8	Perfluoroheptanesulfonic acid	2.61		0.062	0.021
335-77-3	Perfluorodecanesulfonic acid	2.42		0.062	0.021
754-91-6	Perfluorooctanesulfonamide	2.71		0.062	0.021
375-22-4	Perfluorobutanoic acid	2.87		0.21	0.083
2058-94-8	Perfluoroundecanoic acid	3.19		0.062	0.021
307-55-1	Perfluorododecanoic acid	3.02		0.062	0.021
27619-97-2	6:2 Fluorotelomer sulfonic acid	2.47		0.21	0.062
39108-34-4	8:2 Fluorotelomer sulfonic acid	2.54		0.31	0.062
2706-90-3	Perfluoropentanoic acid	2.70		0.062	0.021

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: Import-1-20220216 MS Lab Sample ID: 410-73309-1 MS

Matrix: Solid Lab File ID: 22MAR02-16.d

Analysis Method: 537 IDA Date Collected: 02/16/2022 12:20

Extraction Method: SHAKE Date Extracted: 03/01/2022 07:26

Sample wt/vol: 10.03(g) Date Analyzed: 03/02/2022 11:11

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 4(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 3.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 229099 Units: ng/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	94		15-200
STL02279	M2-6:2 FTS	97		10-200
STL02577	13C5 PFHxA	83		10-174
STL01892	13C4 PFHpA	83		10-178
STL01052	13C8 PFOA	85		26-159
STL02578	13C9 PFNA	77		26-165
STL02579	13C6 PFDA	90		26-161
STL02580	13C7 PFUnA	87		12-173
STL02703	13C2-PFDoDA	85		11-166
STL02116	13C2 PFTeDA	82		10-169
STL02337	13C3 PFBS	89		27-179
STL02581	13C3 PFHxS	83		24-171
STL01054	13C8 PFOS	83		41-154
STL02118	d3-NMeFOSAA	76		10-178
STL02117	d5-NEtFOSAA	86		10-193
STL01056	13C8 FOSA	82		14-163
STL00992	13C4 PFBA	82		28-153
STL01893	13C5 PFPeA	79		24-161

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-16.d
Lims ID: 410-73309-A-1-K MS
Client ID: Import-1-20220216
Sample Type: MS
Inject. Date: 02-Mar-2022 11:11:16 ALS Bottle#: 6 Worklist Smp#: 8
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: 410-73309-A-1-K MS
Misc. Info.: Plate: 1 Rack: 1 410-0051478-008
Operator ID: US19_USR_INS20261 Instrument ID: 30728

Method: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 10:20:58 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617

First Level Reviewer: glicka Date: 02-Mar-2022 12:10:10
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.065	1.065	0.0	0.279	1559	0.0121		0.0	30.1	
1 MTP										
175.00 > 97.00	1.526	1.518	0.008	0.399	581746	12.5		99.7	14853	
2 PPF Acid										
163.00 > 119.00	1.887	1.874	0.013	0.494	2883726	12.8		102	9841	
3 PFMOAA										
179.00 > 85.00	2.903	2.891	0.012	0.759	1922228	9.96		79.6	17575	
4 R-PSDA										
441.00 > 241.00	3.802	3.792	0.010	0.850	40693	2.35		18.8	2445	
5 R-EVE										
405.00 > 217.00	3.802	3.793	0.009	0.995	30500	0.6937		5.5	2393	
D 6 13C4 PFBA										
217.00 > 172.00	3.823	3.816	0.007	1.000	4825010	8.22		82.2	115049	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.823	3.816	0.007	1.000	5776847	13.9		111	21397	
* 8 13C3-PFBA										
216.00 > 172.00	3.823	3.817	0.006		2715859	5.00			10246	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.823	3.817	0.006	0.855	100238	1.52		12.2	5033	
10 PMPA										
229.00 > 185.00	3.963	3.956	0.007	1.037	3261424	13.2		106	41862	
11 PFPrS										
249.00 > 99.00	4.026	4.020	0.006	1.053	1440860	13.0		114	74339	
12 NVHOS										
297.00 > 135.00	4.065	4.060	0.005	0.909	1512124	13.2		105	76032	
13 PFECA F										
229.00 > 85.00	4.085	4.082	0.003	1.069	6851030	15.0		120	19169	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
14 PFO2HxA										
245.00 > 85.00	4.291	4.286	0.005	1.123	2493254	13.7		110	116985	
15 3:3 FTCA										
241.00 > 177.00	4.407	4.403	0.004	0.998	255606	8.58		68.6	15753	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.407	4.404	0.003	0.998	5729149	13.1		105	29997	
D 17 13C5 PFPeA										
268.00 > 223.00	4.418	4.404	0.014	1.156	3770654	7.93		79.3	88936	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.464	4.460	0.004	0.998	5108189	12.4	Target=3.14	112	66691	
299.00 > 99.00	4.464	4.460	0.004	0.998	1667098		3.06(1.57-4.71)		44370	
D 19 13C3 PFBS										
302.00 > 80.00	4.473	4.462	0.011	1.170	3973622	8.27		88.9	280724	
20 PEPA										
279.00 > 235.00	4.520	4.517	0.003	1.182	1356396	15.8		126	22822	
21 PFECA A										
279.00 > 85.00	4.549	4.543	0.006	1.017	5380576	12.4		98.9	221688	
22 PES										
315.00 > 135.00	4.648	4.638	0.010	1.039	13167639	10.8		96.9	578616	
23 PFECA B										
201.00 > 85.00	4.780	4.771	0.009	1.069	7934267	11.8	Target=1.81	94.7	95081	
295.00 > 201.00	4.780	4.771	0.009	1.069	4439902		1.79(0.90-2.71)		227687	
110 FBSA										
299.00 > 78.00		4.792				ND				
24 4:2 FTS										
327.00 > 307.00	4.809	4.803	0.006	1.000	2632848	12.1	Target=1.33	103	178674	
327.00 > 81.00	4.809	4.803	0.006	1.000	1828256		1.44(0.66-1.99)		61786	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.809	4.806	0.003	0.853	768857	9.89		106	25686	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.849	4.843	0.006	1.000	5968781	14.5	Target=12.64	116	84608	
313.00 > 119.00	4.849	4.843	0.006	1.000	442594		13.49(6.32-18.96)		17632	
D 27 13C5 PFHxA										
318.00 > 273.00	4.849	4.846	0.003	0.860	5299138	8.29		82.9	208085	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.869	4.863	0.006	1.089	4868434	12.4	Target=3.66	106	238537	
349.00 > 99.00	4.869	4.863	0.006	1.089	1316442		3.70(1.83-5.49)		86069	
29 PFO3OA										
311.00 > 85.00	4.909	4.903	0.006	1.284	2880636	12.9		103	188153	
30 HFPO-DA										
329.00 > 285.00	4.991	4.978	0.013	1.000	2147455	13.0		104	43006	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.991	4.983	0.008	0.885	1339972	8.93		89.3	90984	
32 Hydro-EVE Acid										
427.00 > 283.00	5.213	5.201	0.012	1.364	9782919	14.7		118	1110960	
33 R-PSDCA										
397.00 > 217.00	5.213	5.209	0.004	1.165	12025747	11.4		91.4	445177	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
108 FBSEE										
386.00 > 166.00		5.220				ND				
386.00 > 80.00		5.220								
34 Hydro-PS Acid										
463.00 > 263.00	5.202	5.246	-0.044	1.163	10014419	14.0		112	219192	
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.267	5.254	0.013	1.000	4889155	13.3	Target=3.57	117	6909	
399.00 > 99.00	5.256	5.254	0.002	0.998	1343860		3.64(1.78-5.35)		2786	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.256	5.254	0.002	0.998	7729157	14.7	Target=3.54	118	142595	
363.00 > 169.00	5.256	5.254	0.002	0.998	2182418		3.54(1.77-5.31)		67475	
D 37 13C3 PFHxS										
402.00 > 80.00	5.267	5.254	0.013	0.934	3579329	7.88		83.3	222316	
D 38 13C4 PFHpA										
367.00 > 322.00	5.267	5.255	0.012	0.934	5736001	8.33		83.3	152250	
39 DONA										
377.00 > 251.00	5.310	5.303	0.007	1.008	9153672	13.8		117	350521	
40 PFECA G										
379.00 > 185.00	5.331	5.322	0.009	1.395	9903879	12.7		102	385694	
41 5:3 FTCA										
341.00 > 237.00	5.341	5.338	0.003	1.014	870780	8.88	Target=3.04	71.0	28188	
341.00 > 217.00	5.341	5.338	0.003	1.014	295346		2.95(1.52-4.55)		19430	
42 6:2 FTUCA										
357.00 > 293.00	5.370	5.359	0.011	1.000	5037210	14.0		112	168906	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.370	5.361	0.009	0.952	2902400	7.72		77.2	85452	
44 6:2 FTCA										
377.00 > 293.00	5.387	5.378	0.009	1.000	599218	12.6		100	24957	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.387	5.379	0.008	0.955	461756	7.81		78.1	24507	
46 PFO4DA										
377.00 > 85.00	5.437	5.435	0.002	1.422	3813587	14.0		112	1108	
47 PS Acid										
443.00 > 147.00	5.490	5.479	0.011	1.227	13096	0.0516		0.4	963	
48 EVE Acid										
407.00 > 263.00	5.509	5.500	0.009	1.441	38192	0.0560		0.4	2453	
49 PFECHS										
461.00 > 381.00	5.577	5.569	0.008	1.059	6258148	12.7	Target=1.56	110	320832	
461.00 > 99.00	5.577	5.569	0.008	1.059	3930294		1.59(0.78-2.34)		202996	
50 6:2 FTS										
427.00 > 407.00	5.621	5.613	0.008	1.000	1167676	11.9	Target=1.19	101	78433	
427.00 > 81.00	5.621	5.613	0.008	1.000	939547		1.24(0.60-1.79)		37870	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.621	5.614	0.007	0.997	255173	9.18		96.6	17179	
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.621	5.618	0.003	1.067	4589600	12.6	Target=3.73	106	232777	
449.00 > 99.00	5.621	5.618	0.003	1.067	1214475		3.78(1.87-5.60)		83391	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 Perfluorooctanoic acid										
413.00 > 369.00	5.640	5.630	0.010	1.000	5893132	13.8	Target=2.20	110	723581	
413.00 > 169.00	5.630	5.630	0.0	0.998	2600754		2.27(1.10-3.30)		882814	
D 54 13C8 PFOA										
421.00 > 376.00	5.640	5.631	0.009	1.000	5722866	8.49		84.9	288553	
* 55 13C2 PFOA										
415.00 > 370.00	5.640	5.631	0.009		2754606	5.00			186401	
106 FHxSA										
399.00 > 78.00		5.692				ND				
56 TAF										
443.00 > 85.00	5.892	5.879	0.013	1.541	3363142	13.1		105	176085	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.965	5.954	0.011	1.000	5288267	12.8	Target=4.38	110	2495	
499.00 > 99.00	5.957	5.954	0.002	0.999	1122150		4.71(2.19-6.58)		2037	
* 59 13C4 PFOS										
503.00 > 80.00	5.965	5.955	0.010		2519935	4.78			181055	
D 58 13C8 PFOS										
507.00 > 80.00	5.965	5.955	0.010	1.000	4048232	7.93		82.9	45944	
61 Perfluorononanoic acid										
463.00 > 419.00	5.983	5.973	0.010	1.000	4672264	13.9	Target=3.95	111	242735	
463.00 > 169.00	5.983	5.973	0.010	1.000	1239297		3.77(1.97-5.92)		86097	
D 60 13C9 PFNA										
472.00 > 427.00	5.983	5.975	0.008	1.003	3849996	7.70		77.0	201342	
109 HFPO-TrA										
496.00 > 185.00		6.068				ND				
62 7:3 FTCA										
441.00 > 337.00	6.084	6.077	0.007	1.129	975314	8.70		69.6	39420	
63 8:2 FTUCA										
457.00 > 393.00	6.094	6.084	0.010	1.000	4050066	14.3		115	207077	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.094	6.085	0.009	0.969	2995653	8.42		84.2	150833	
65 8:2 FTCA										
477.00 > 393.00	6.114	6.099	0.015	1.000	452711	13.4		107	31065	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.114	6.102	0.012	0.972	337496	8.43		84.3	22786	
67 9ClFOS										
531.00 > 351.00	6.142	6.130	0.012	1.030	7693427	12.9		111	205657	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.264	6.254	0.010	1.050	5465527	13.3	Target=4.33	111	300749	
549.00 > 99.00	6.264	6.254	0.010	1.050	1276711		4.28(2.16-6.49)		94407	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.290	6.279	0.011	1.000	5723450	13.6	Target=7.98	109	241688	
513.00 > 169.00	6.281	6.279	0.002	0.999	779078		7.35(3.99-11.97)		41751	
D 71 13C6 PFDA										
519.00 > 474.00	6.290	6.282	0.008	1.000	5014422	9.00		90.0	267285	
* 70 13C2 PFDA										
515.00 > 470.00	6.290	6.282	0.008		2917653	5.00			205789	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
72 8:2 FTS										
527.00 > 507.00	6.290	6.282	0.008	0.999	946041	12.3	Target=1.01	103	67017	
527.00 > 81.00	6.290	6.282	0.008	0.999	968403		0.98(0.50-1.51)		33798	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.298	6.285	0.013	1.001	129515	8.97		93.6	9082	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.374	6.371	0.003	0.998	7686613	13.1		105	250025	
D 74 13C8 FOSA										
506.00 > 78.00	6.385	6.375	0.010	1.015	5911462	8.22		82.2	379308	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.436	6.428	0.008	1.023	1185846	7.57		75.7	11412	
76 NMeFOSAA										M
570.00 > 419.00	6.436	6.429	0.007	1.000	1393646	13.3	Target=1.69	107	105451	M
570.00 > 483.00	6.426	6.429	-0.003	0.998	885418		1.57(0.85-2.54)		1533	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.527	6.522	0.005	1.094	4740224	11.7	Target=4.28	97.3	293845	
599.00 > 99.00	6.527	6.522	0.005	1.094	1133743		4.18(2.14-6.42)		71924	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.563	6.550	0.012	1.000	5887268	15.4	Target=7.28	124	131867	
563.00 > 169.00	6.551	6.550	0.001	0.998	770058		7.65(3.64-10.92)		46332	
D 80 13C7 PFUnA										
570.00 > 525.00	6.563	6.557	0.005	1.043	5117454	8.68		86.8	303068	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.574	6.569	0.005	1.045	965003	8.63		86.3	42704	
82 NEtFOSAA										
584.00 > 419.00	6.574	6.570	0.004	1.000	1189770	12.8	Target=1.63	103	383789	
584.00 > 526.00	6.574	6.570	0.004	1.000	702052		1.69(0.82-2.45)		1412	
83 10:2 FTUCA										
557.00 > 493.00	6.665	6.654	0.011	1.000	2980043	12.7		102	183989	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.665	6.660	0.005	1.060	2441093	7.79		77.9	75555	
84 11ClFOS										
631.00 > 451.00	6.665	6.660	0.005	1.117	5342509	12.2		105	250543	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.686	6.670	0.016	1.063	229258	7.87		78.7	13919	
86 10:2 FTCA										
577.00 > 493.00	6.675	6.670	0.005	0.998	270262	12.1		97.0	16690	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.803	6.787	0.016	1.000	5092034	14.6	Target=4.76	117	188255	
613.00 > 169.00	6.791	6.787	0.004	0.998	1015180		5.02(2.38-7.14)		45962	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.803	6.796	0.007	1.082	3823716	8.51		85.1	178844	
90 10:2 FTS										
627.00 > 607.00	6.813	6.810	0.003	1.082	745758	13.1	Target=0.75	108	46106	
627.00 > 81.00	6.813	6.810	0.003	1.082	947237		0.79(0.38-1.13)		59182	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.813	6.813	0.0	1.083	776203	6.64		66.4	7332	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 N-MeFOSE-M										
616.00 > 59.00	6.824	6.820	0.004	1.002	1115764	14.2		113	21303	
94 NMeFOSA										
512.00 > 169.00	6.834	6.829	0.005	1.000	487127	14.6		117	15719	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.834	6.829	0.005	1.087	341773	4.59		45.9	8238	
95 PFDoS										
699.00 > 80.00	6.971	6.967	0.004	1.169	4435297	12.3		102	229972	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.981	6.973	0.008	1.110	913040	6.89		68.9	12494	
97 N-EtFOSE-M										
630.00 > 59.00	6.990	6.981	0.009	1.001	1202495	13.1		105	60119	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.999	6.995	0.004	1.113	378948	5.48		54.8	11108	
100 N-EtFOSA-M										
526.00 > 169.00	6.999	6.996	0.003	1.000	528071	13.3		107	13425	
99 Perfluorotridecanoic acid										
663.00 > 619.00	7.009	6.996	0.013	1.030	4253608	14.1	Target=4.11	112	172219	
663.00 > 169.00	6.999	6.996	0.003	1.029	1043246		4.08(2.06-6.17)		70444	
105 HFPOTeA										
661.00 > 185.00		7.058				ND				
661.00 > 119.00		7.058								
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.188	7.181	0.007	0.999	3841721	14.7	Target=4.34	117	78857	
713.00 > 169.00	7.188	7.181	0.007	0.999	861112		4.46(2.17-6.50)		44243	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.198	7.184	0.014	1.144	2967072	8.21		82.1	150746	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.491	7.483	0.008	1.041	2503929	14.5	Target=5.44	116	64805	
813.00 > 169.00	7.491	7.483	0.008	1.041	444840		5.63(2.72-8.16)		18428	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.728	7.717	0.011	1.074	1813600	14.6	Target=6.37	117	58195	
913.00 > 169.00	7.722	7.717	0.005	1.073	282030		6.43(3.18-9.55)		20360	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

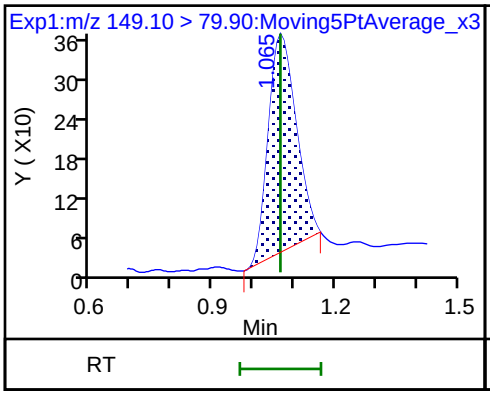
PFC_IS_MOD_00279 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Mar-2022 12:25:26 Chrom Revision: 2.3 16-Feb-2022 17:52:00

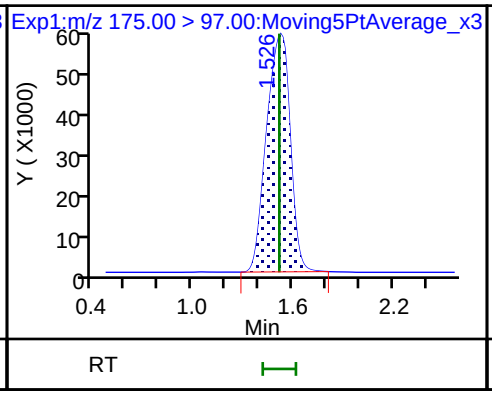
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-16.d
Injection Date: 02-Mar-2022 11:11:16 Instrument ID: 30728
Lims ID: 410-73309-A-1-K MS
Client ID: Import-1-20220216
Operator ID: US19_USR_INS20261 ALS Bottle#: 6 Worklist Smp#: 8
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Method: PFAS_30728_XList Limit Group: LC - PFC IDA

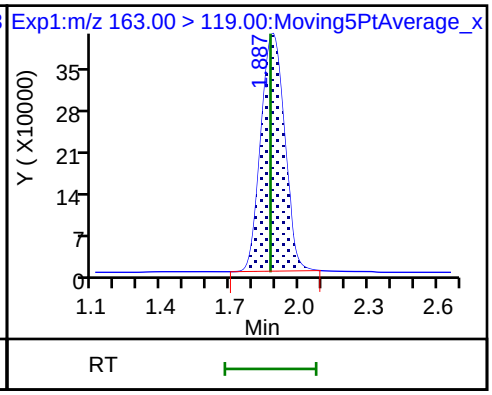
107 Sodium trifluoromethanesulfonate



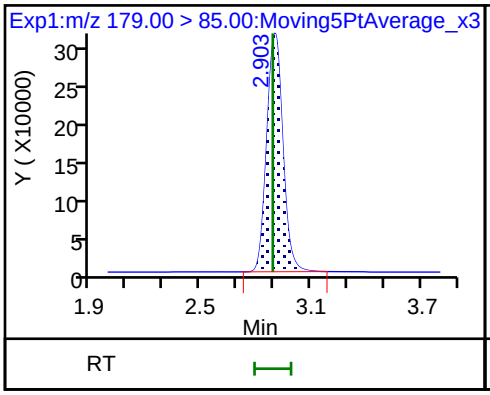
1 MTP



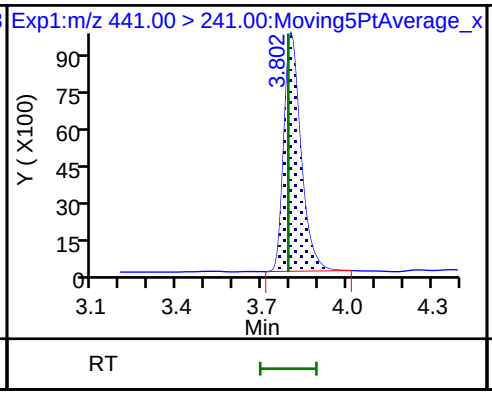
2 PPF Acid



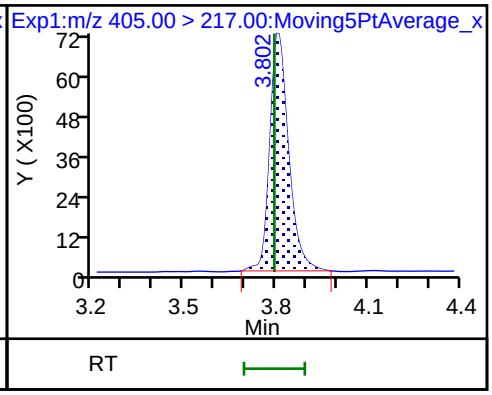
3 PFMOAA



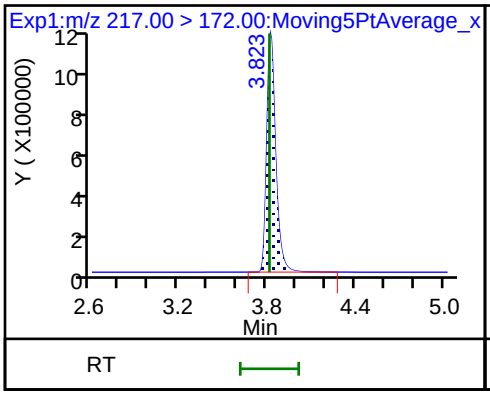
4 R-PSDA



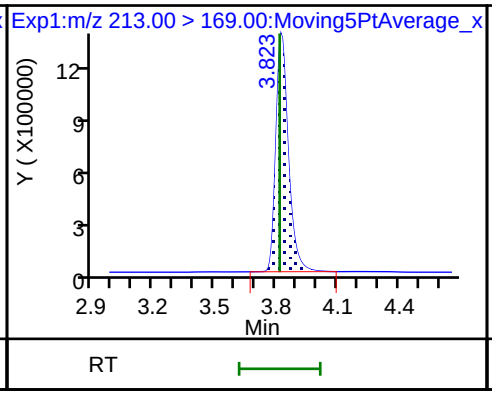
5 R-EVE



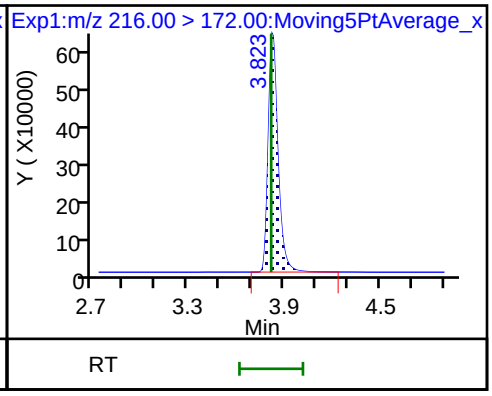
D 6 13C4 PFBA



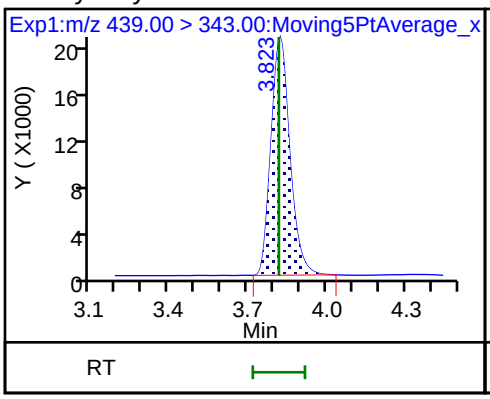
7 Perfluorobutanoic acid



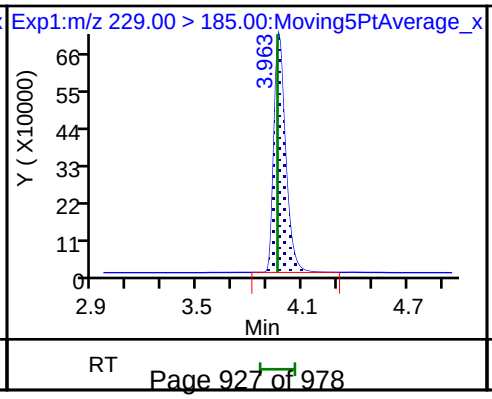
* 8 13C3-PFBA



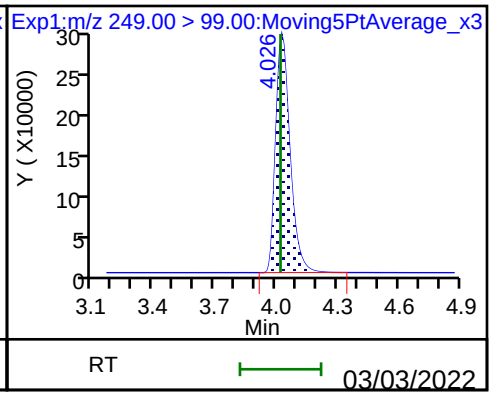
9 Hydrolyzed PSDA



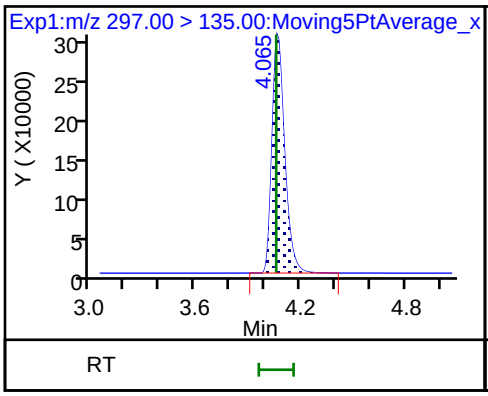
10 PMPA



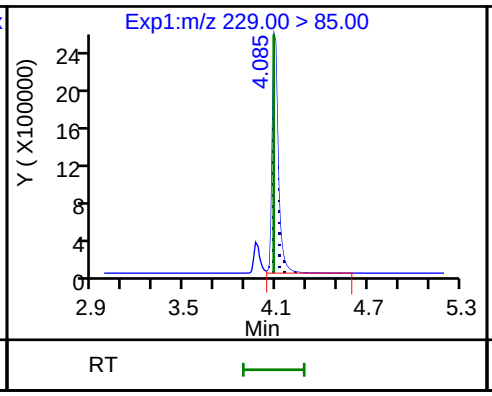
11 PFPrS



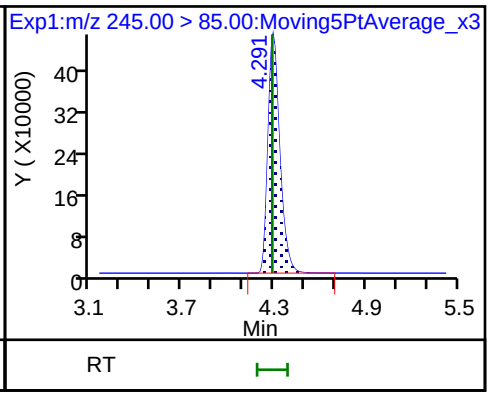
12 NVHOS



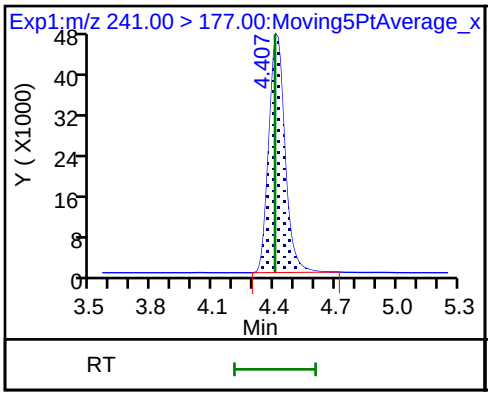
13 PFECA F



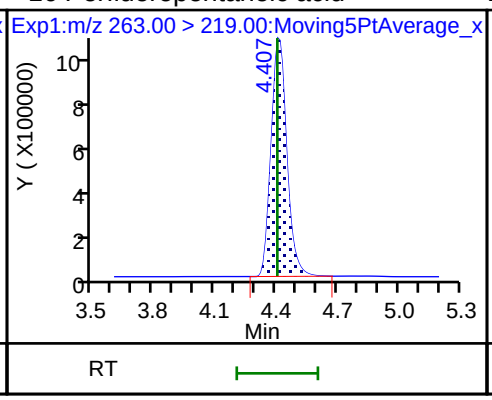
14 PFO2HxA



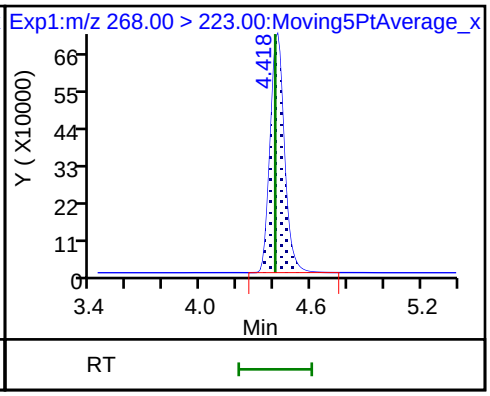
15 3:3 FTCA



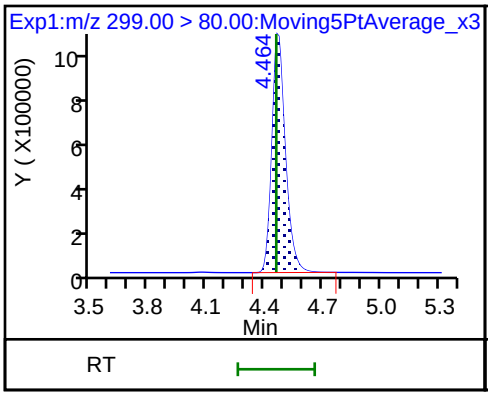
16 Perfluoropentanoic acid



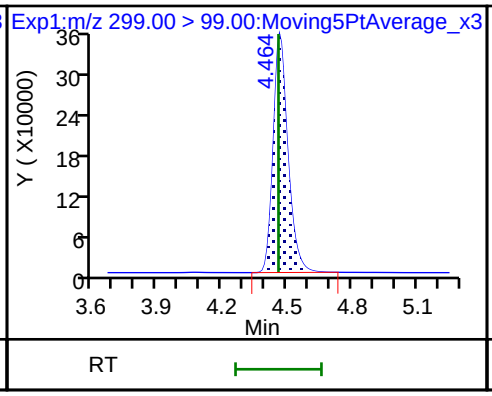
D 17 13C5 PFPeA



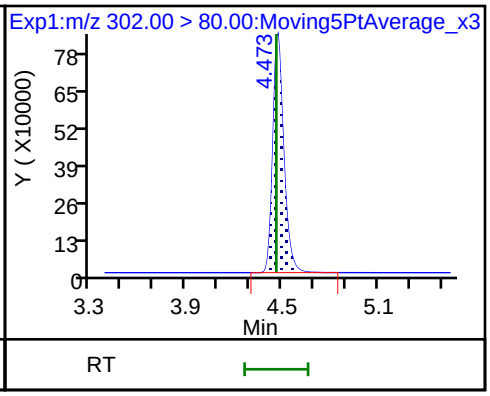
18 Perfluorobutanesulfonic acid



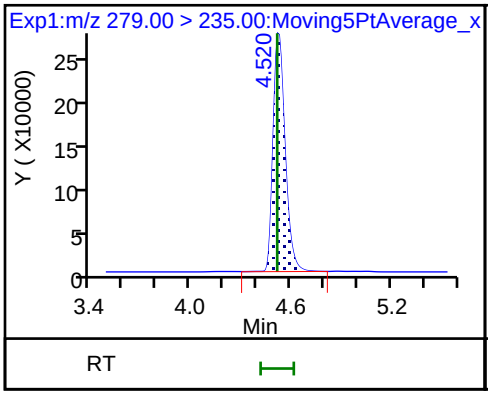
18 Perfluorobutanesulfonic acid



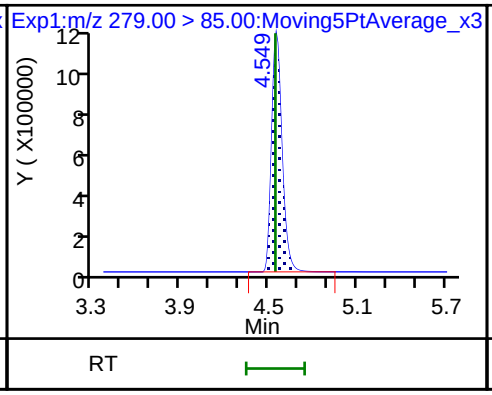
D 19 13C3 PFBS



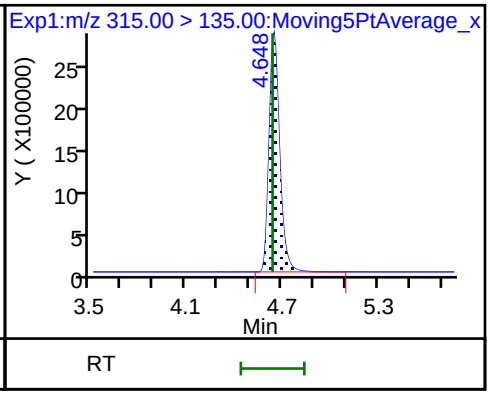
20 PEPA



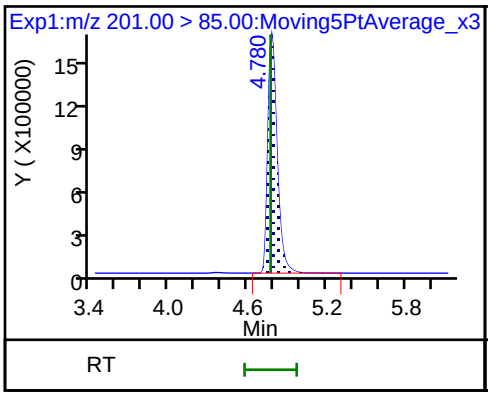
21 PFECA A



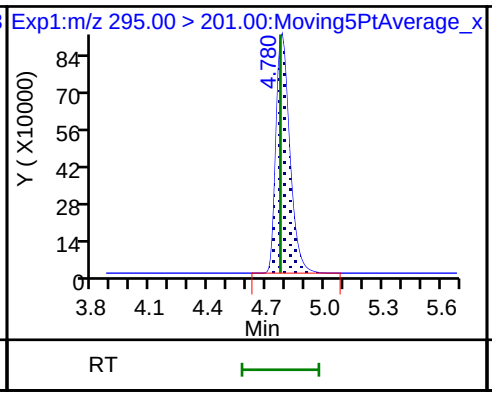
22 PES



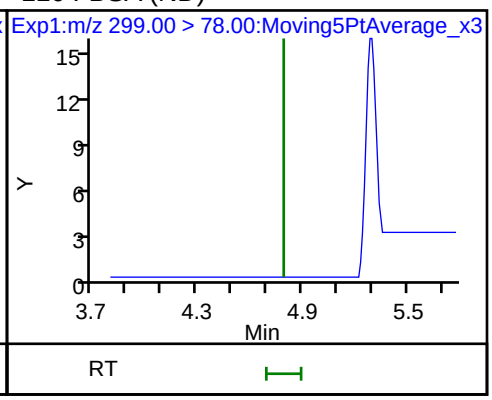
23 PFECA B



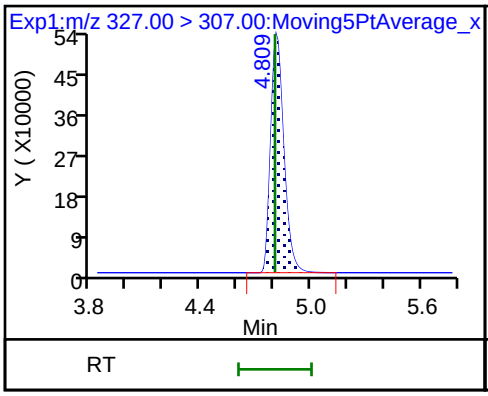
23 PFECA B



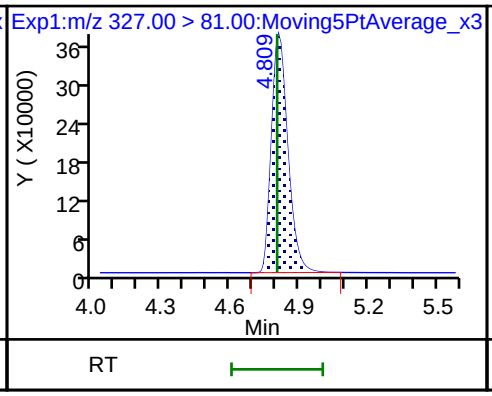
110 FBSA (ND)



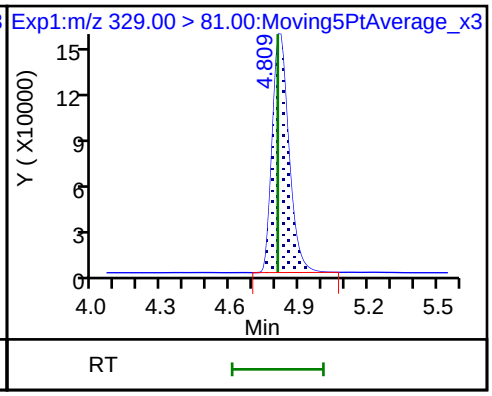
24 4:2 FTS



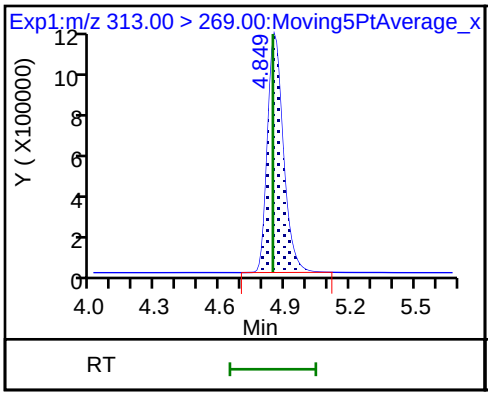
24 4:2 FTS



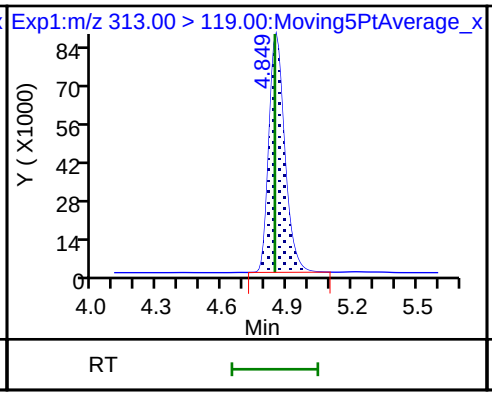
D 25 M2-4:2 FTS



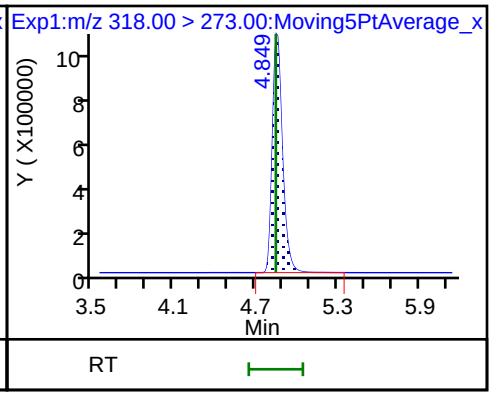
26 Perfluorohexanoic acid



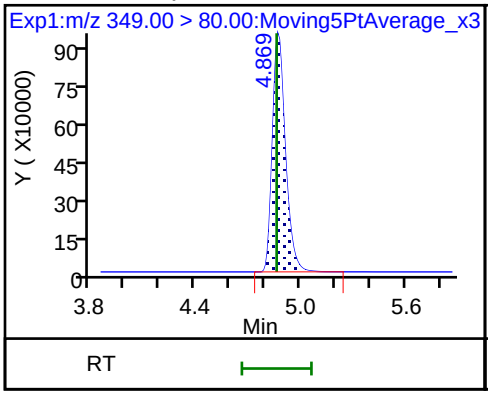
26 Perfluorohexanoic acid



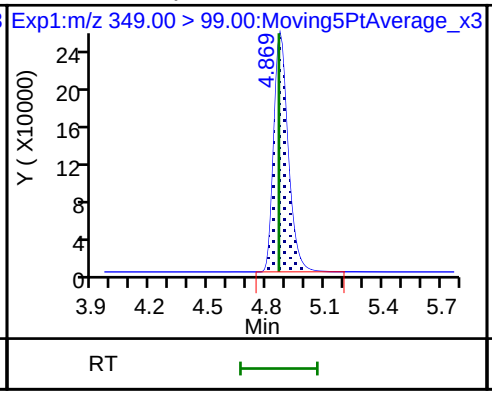
D 27 13C5 PFHxA



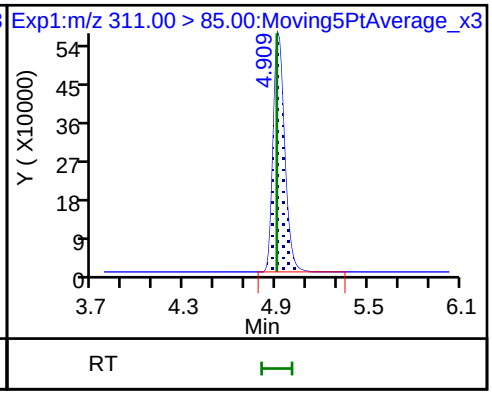
28 Perfluoropentanesulfonic acid



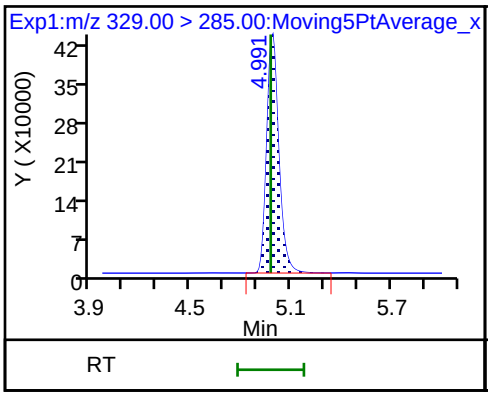
28 Perfluoropentanesulfonic acid



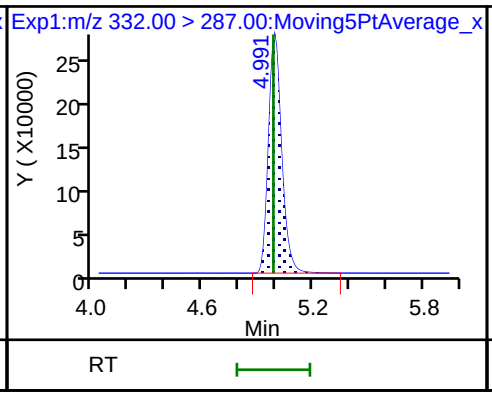
29 PFO3OA



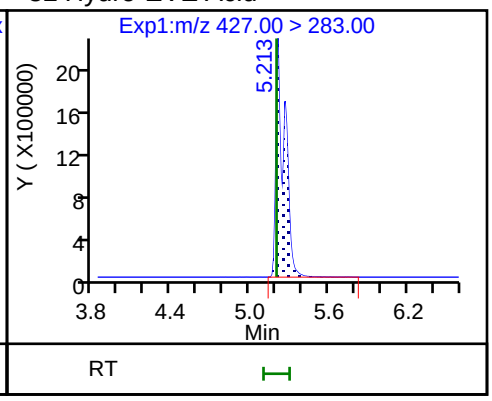
30 HFPO-DA



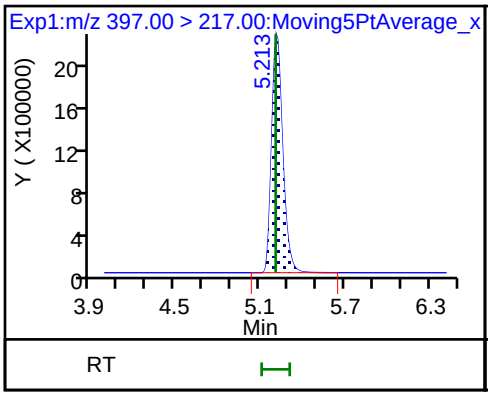
D 31 13C3 HFPO-DA



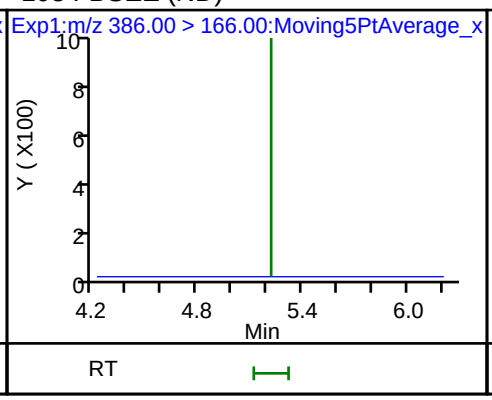
32 Hydro-EVE Acid



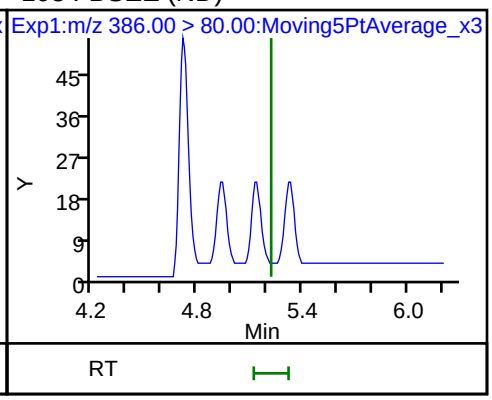
33 R-PSDCA



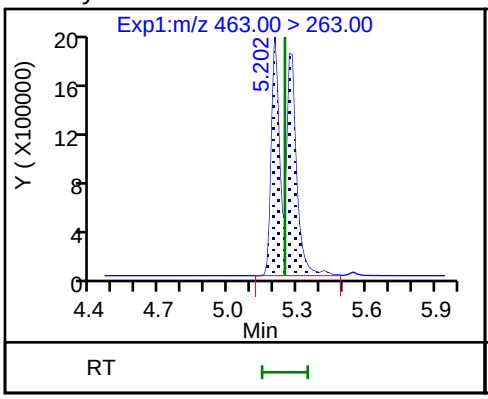
108 FBSEE (ND)



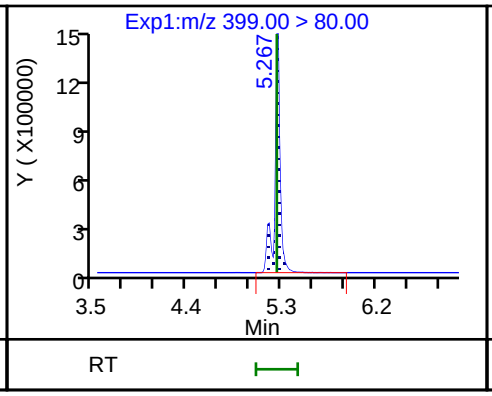
108 FBSEE (ND)



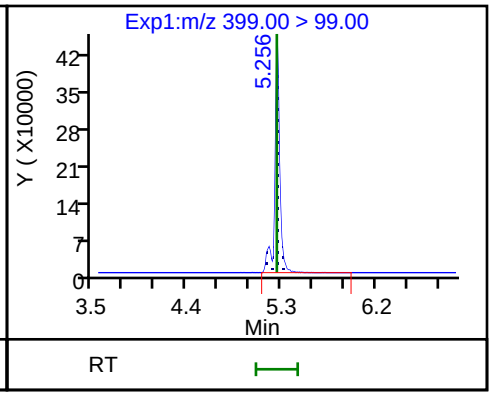
34 Hydro-PS Acid



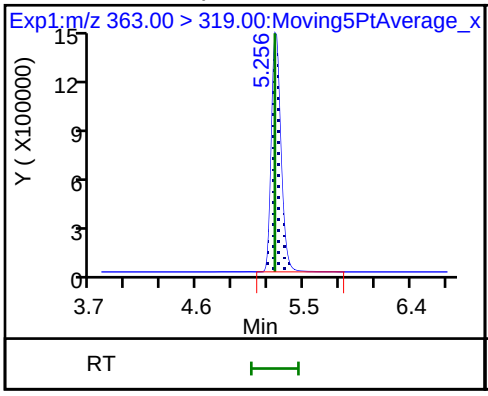
35 Perfluorohexanesulfonic acid



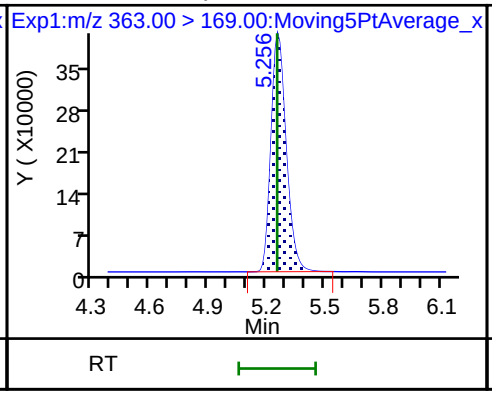
35 Perfluorohexanesulfonic acid



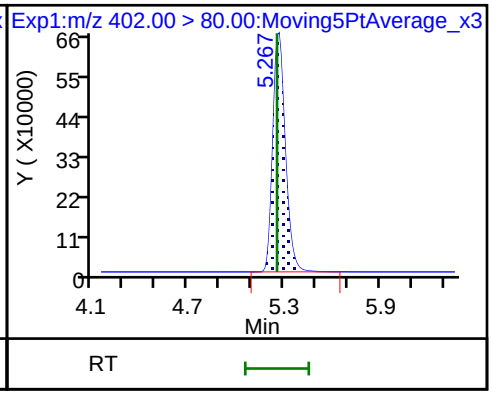
36 Perfluoroheptanoic acid



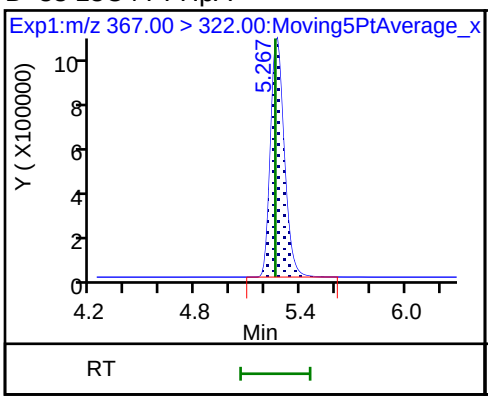
36 Perfluoroheptanoic acid



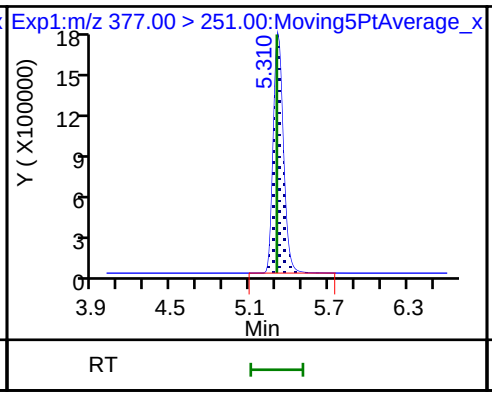
D 37 13C3 PFHxS



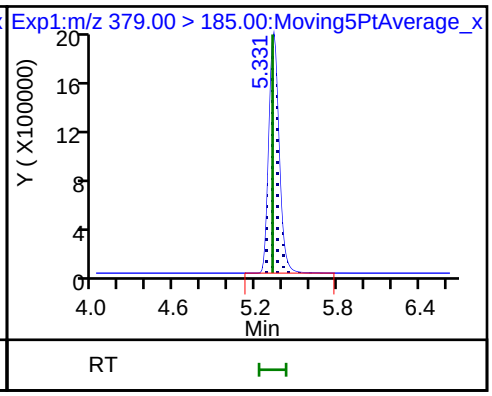
D 38 13C4 PFHpA



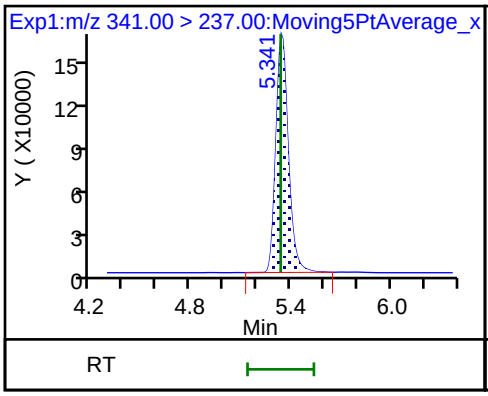
39 DONA



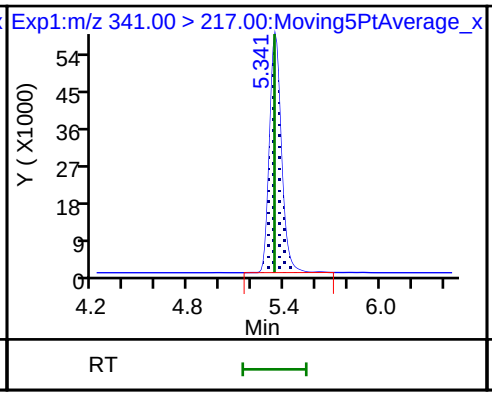
40 PFECA G



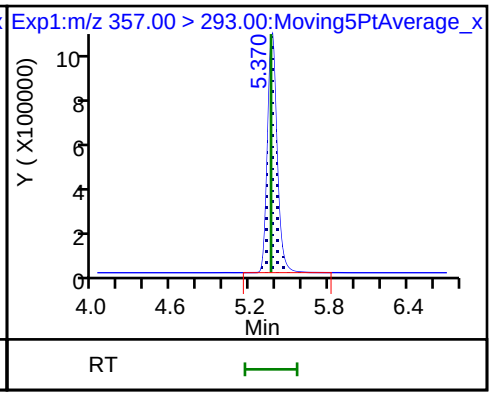
41 5:3 FTCA



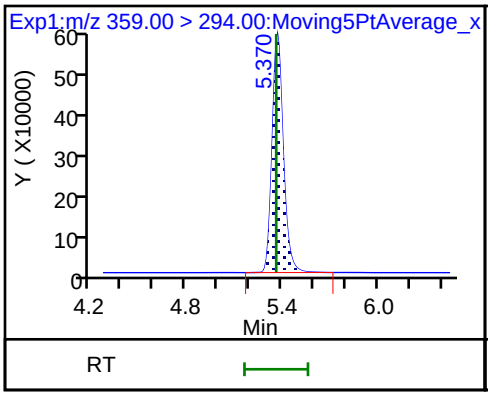
41 5:3 FTCA



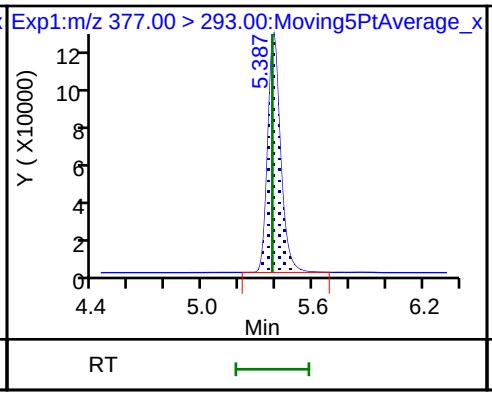
42 6:2 FTUCA



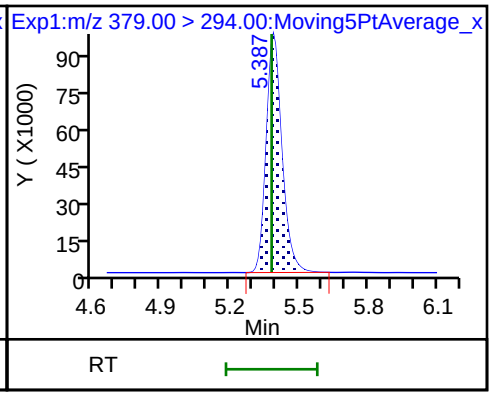
D 43 13C-6:2 FTUCA



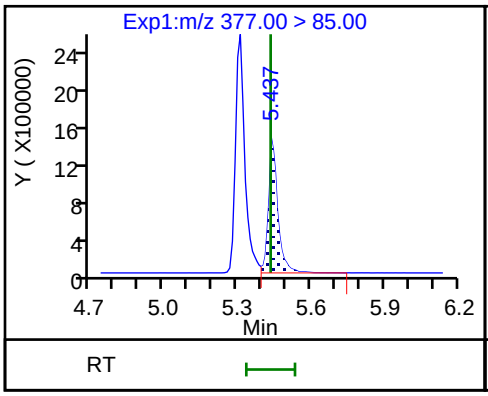
44 6:2 FTCA



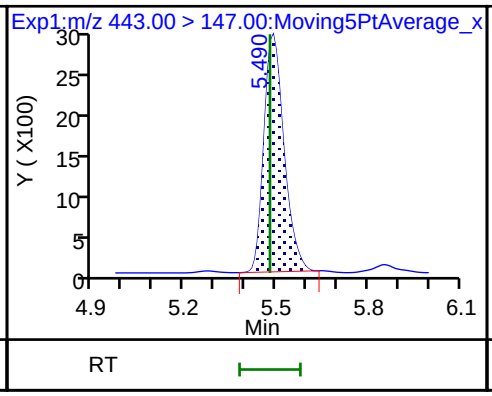
D 45 13C-6:2 FTCA



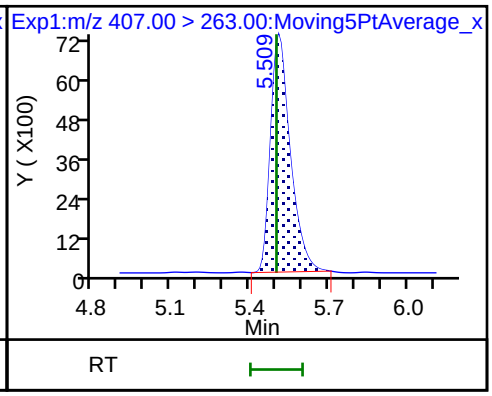
46 PFO4DA



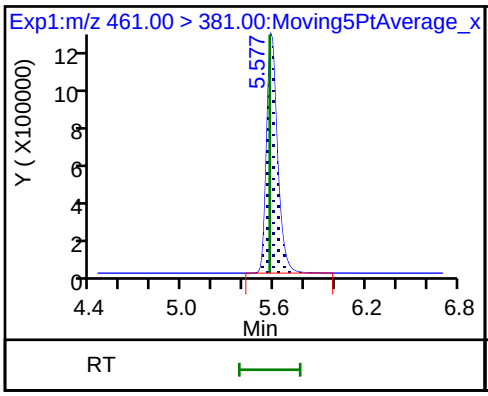
47 PS Acid



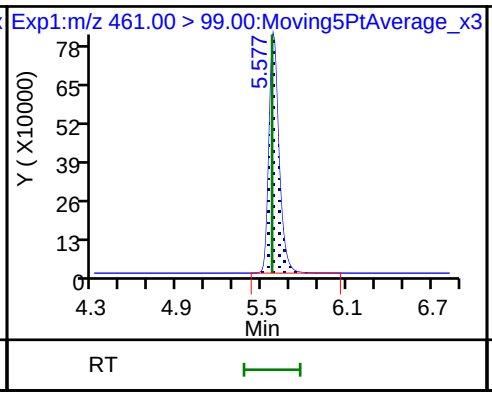
48 EVE Acid



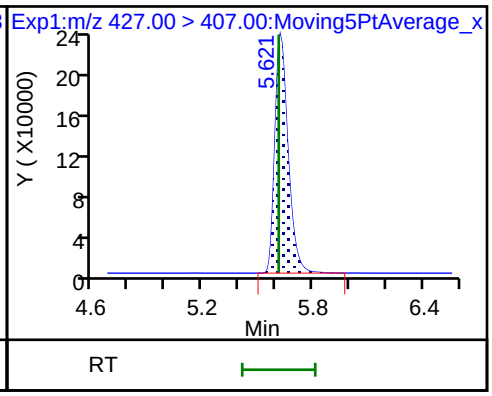
49 PFECHS



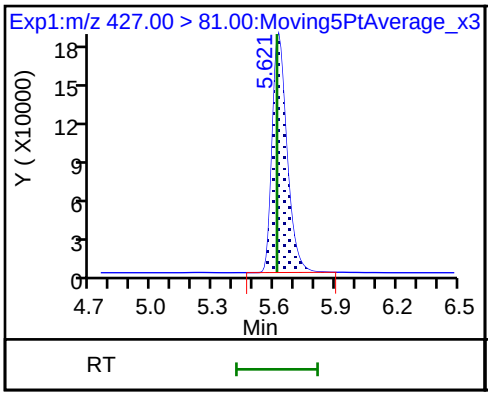
49 PFECHS



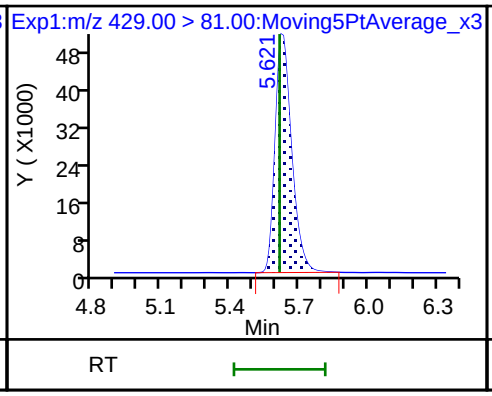
50 6:2 FTS



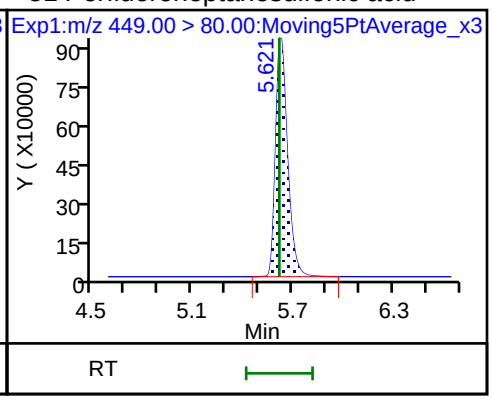
50 6:2 FTS



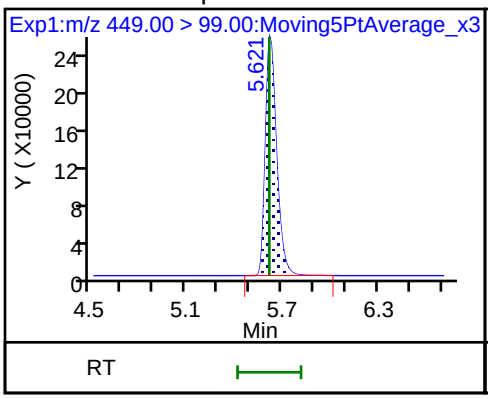
D 52 M2-6:2 FTS



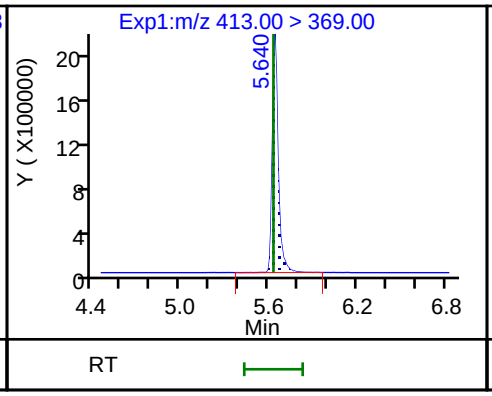
51 Perfluoroheptanesulfonic acid



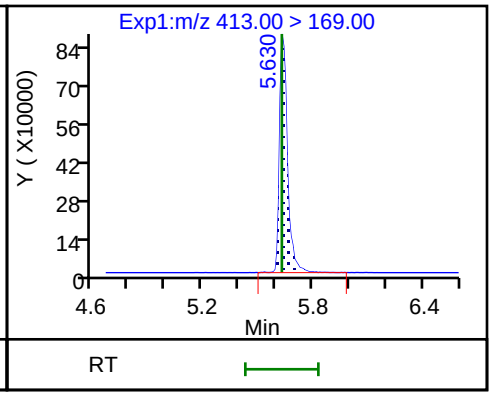
51 Perfluoroheptanesulfonic acid



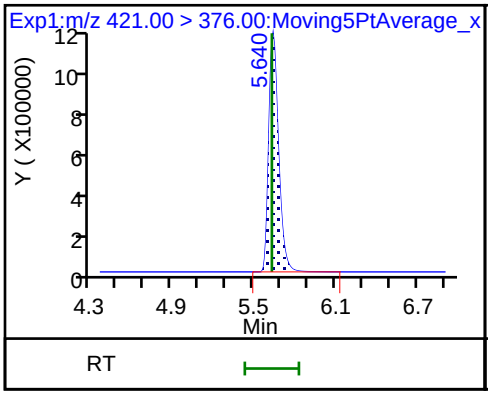
53 Perfluorooctanoic acid



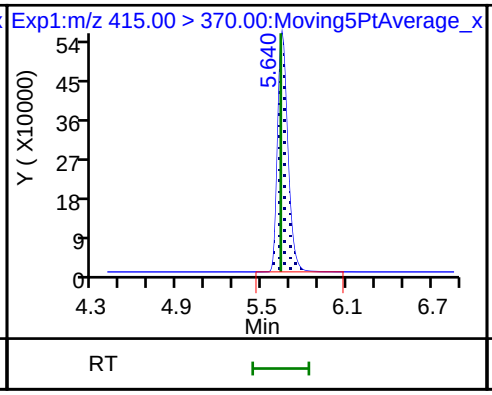
53 Perfluorooctanoic acid



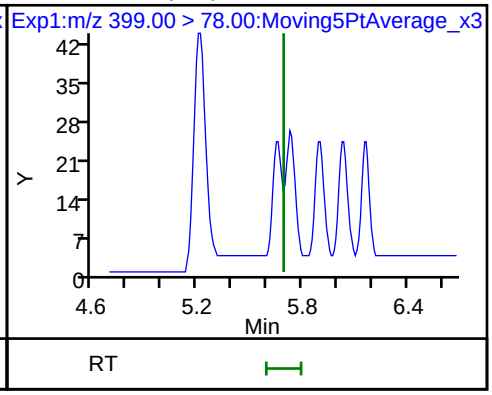
D 54 13C8 PFOA



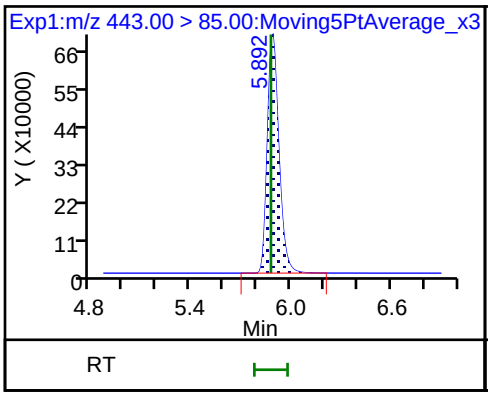
* 55 13C2 PFOA



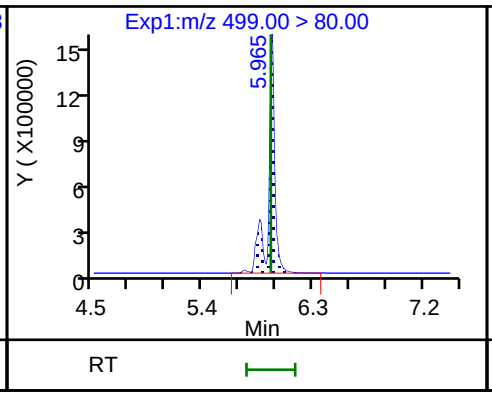
106 FHxSA (ND)



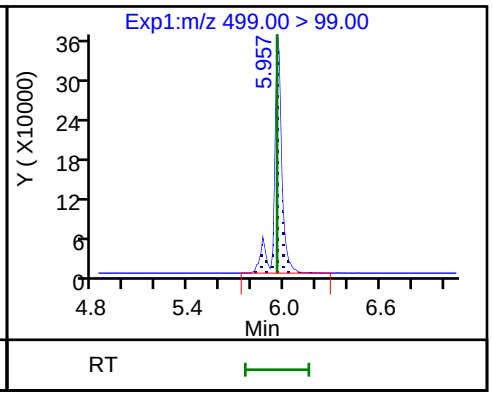
56 TAF



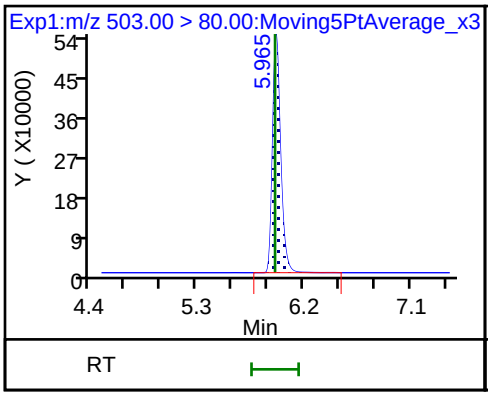
57 Perfluorooctanesulfonic acid



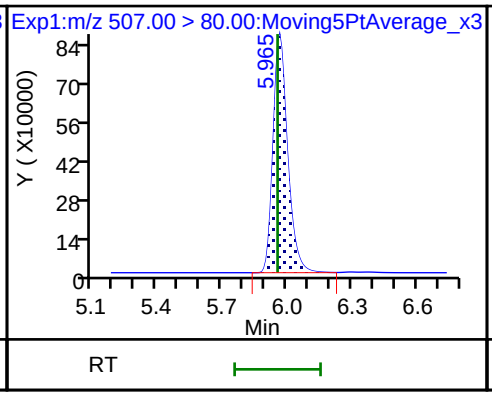
57 Perfluorooctanesulfonic acid



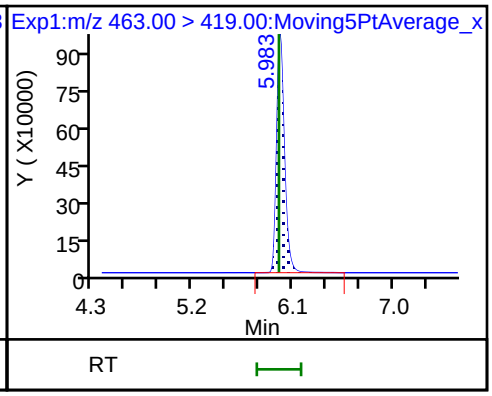
* 59 13C4 PFOS



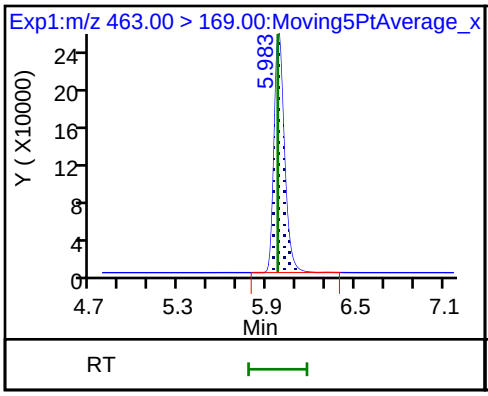
D 58 13C8 PFOS



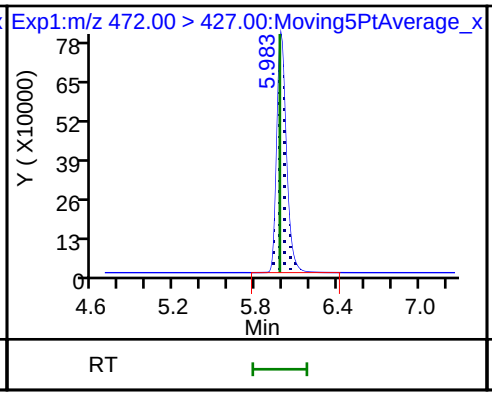
61 Perfluorononanoic acid



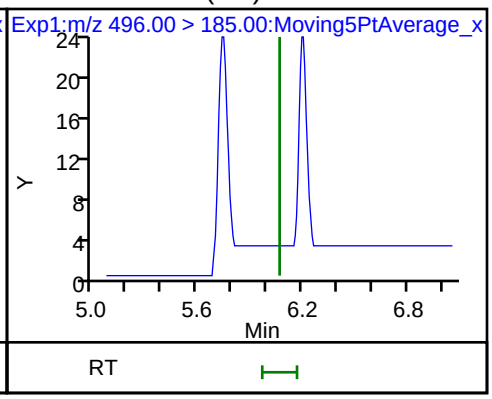
61 Perfluorononanoic acid



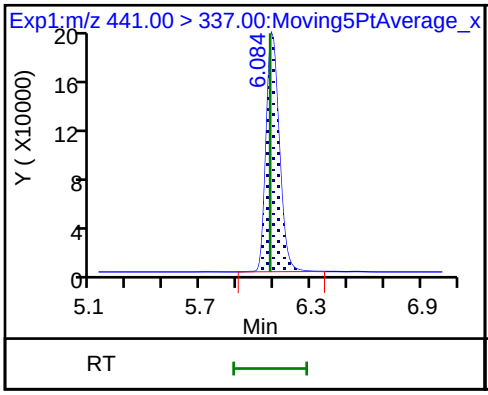
D 60 13C9 PFNA



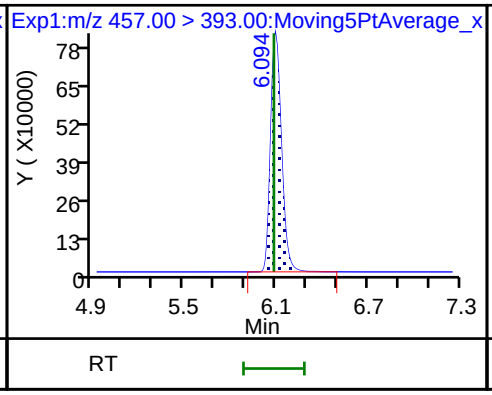
109 HFPO-TrA (ND)



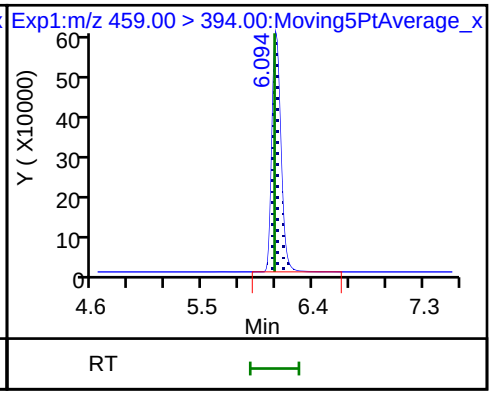
62 7:3 FTCA



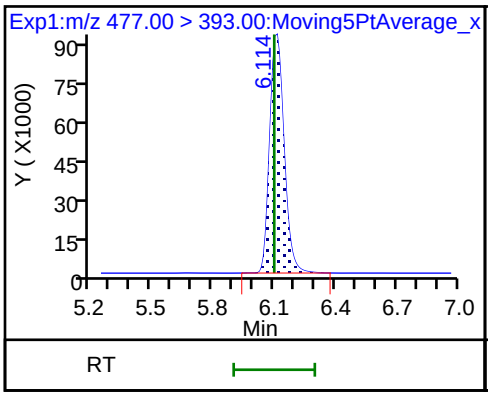
63 8:2 FTUCA



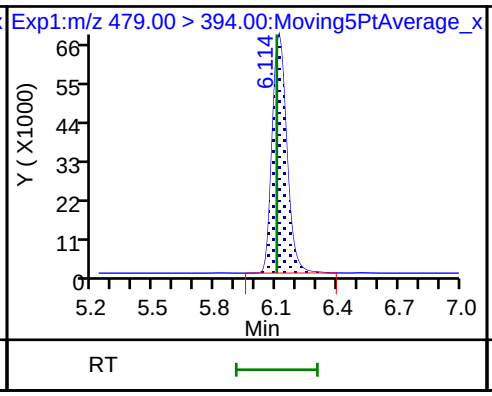
D 64 13C-8:2 FTUCA



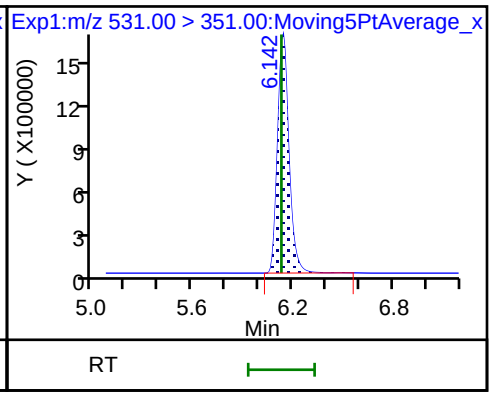
65 8:2 FTCA



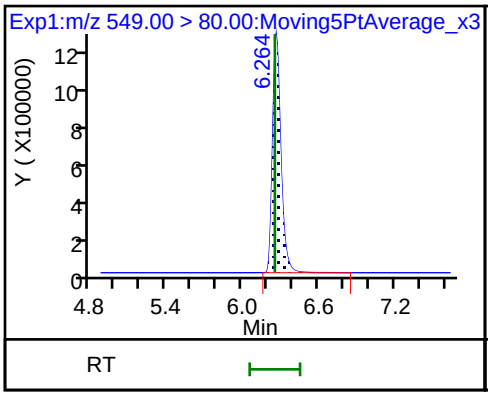
D 66 13C-8:2 FTCA



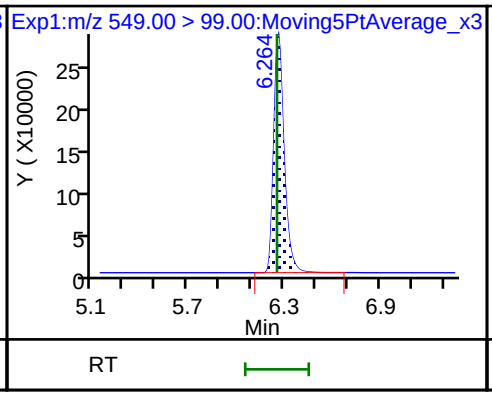
67 9ClFOS



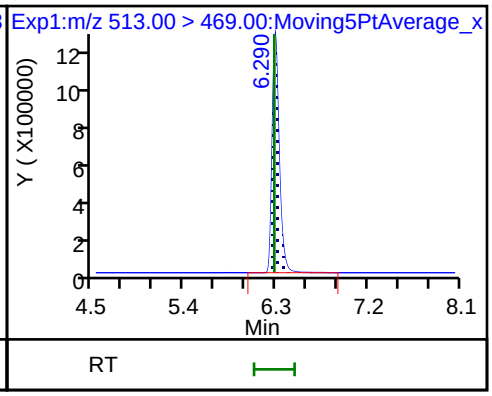
68 Perfluorononanesulfonic acid



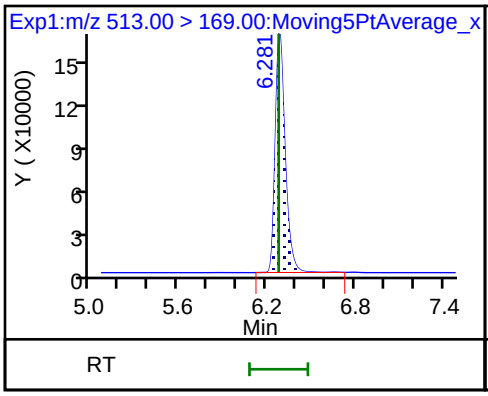
68 Perfluorononanesulfonic acid



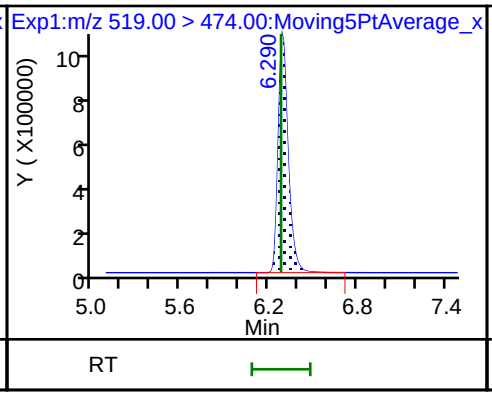
69 Perfluorodecanoic acid



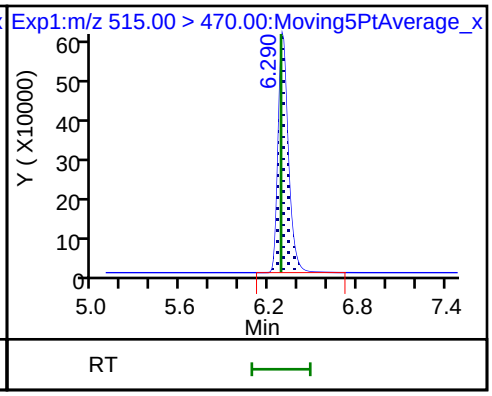
69 Perfluorodecanoic acid



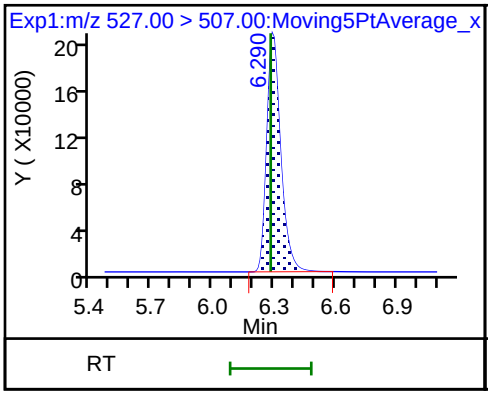
D 71 13C6 PFDA



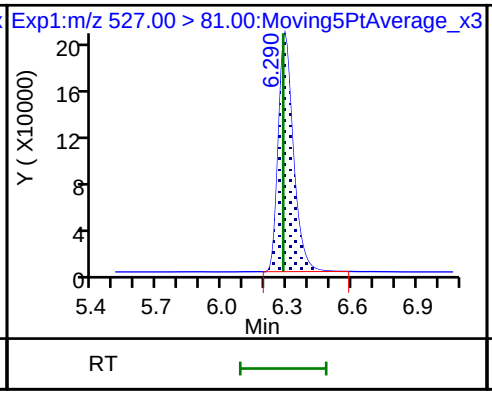
* 70 13C2 PFDA



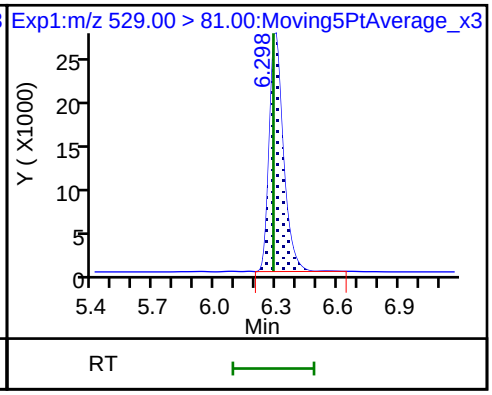
72 8:2 FTS



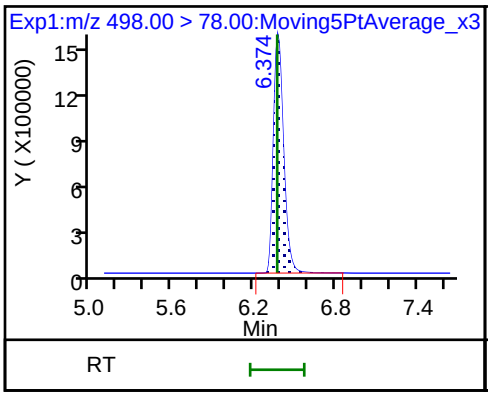
72 8:2 FTS



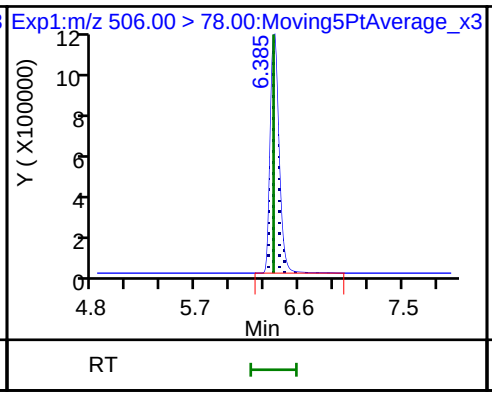
D 73 M2-8:2 FTS



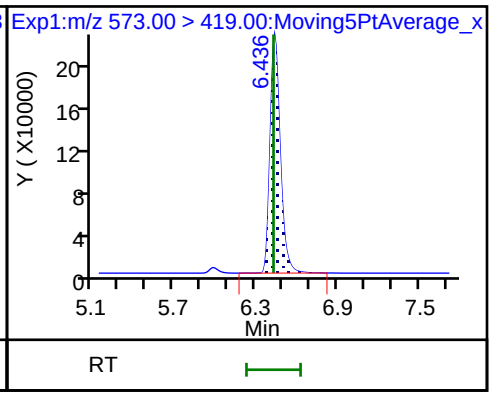
75 Perfluorooctanesulfonamide



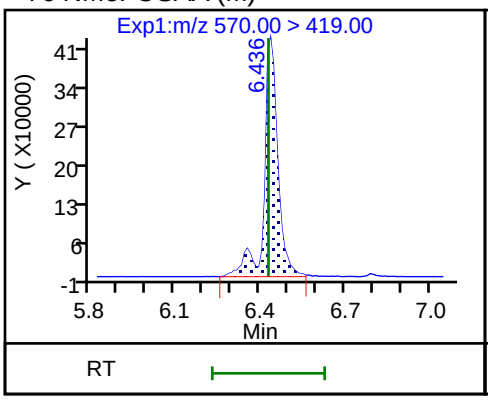
D 74 13C8 FOSA



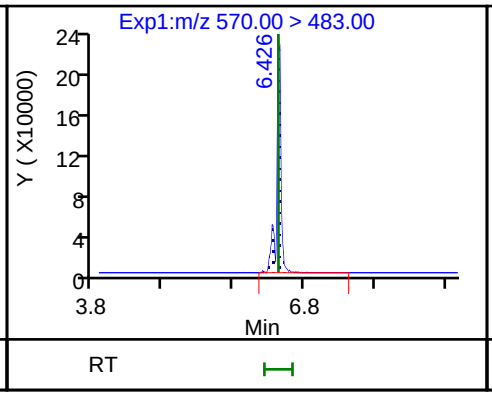
D 77 d3-NMeFOSAA



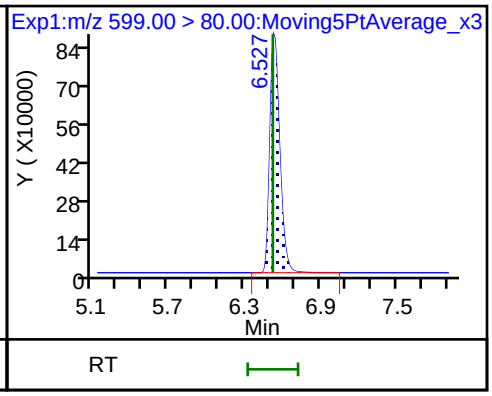
76 NMeFOSAA (M)



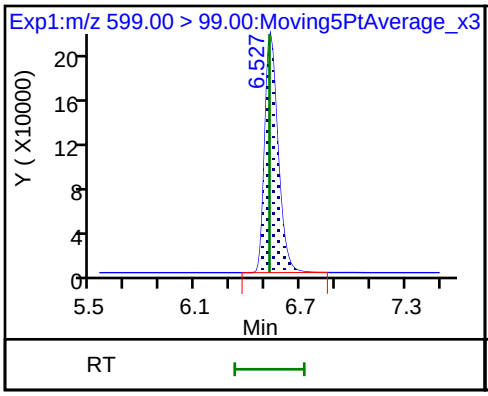
76 NMeFOSAA



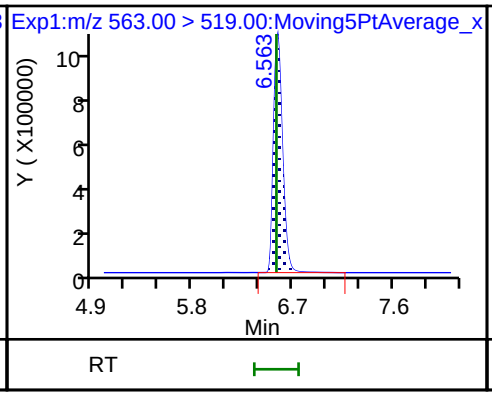
78 Perfluorodecanesulfonic acid



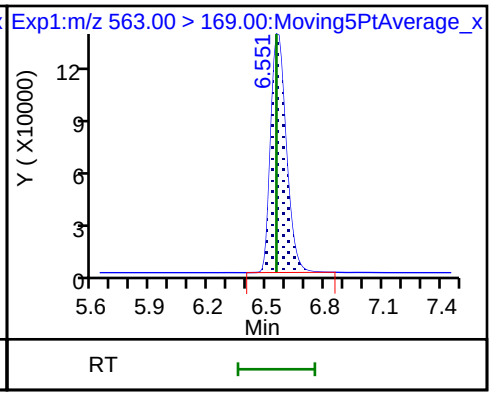
78 Perfluorodecanesulfonic acid



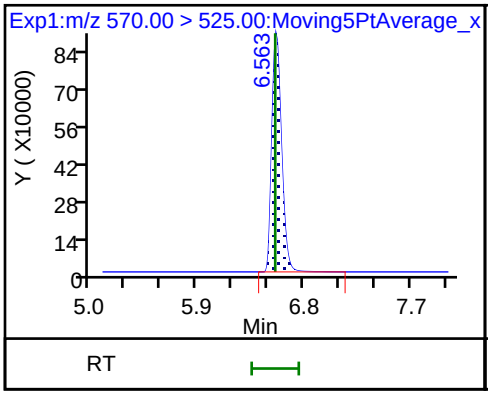
79 Perfluoroundecanoic acid



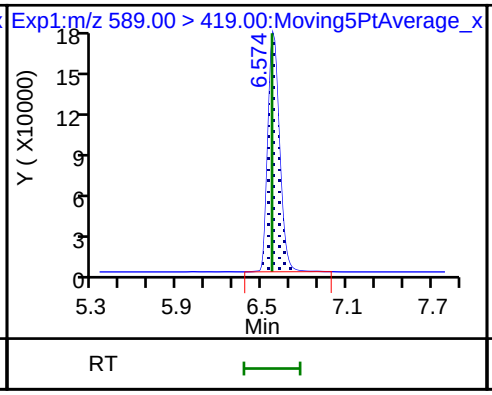
79 Perfluoroundecanoic acid



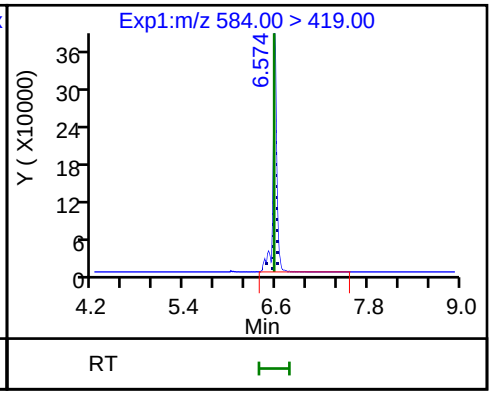
D 80 13C7 PFUnA



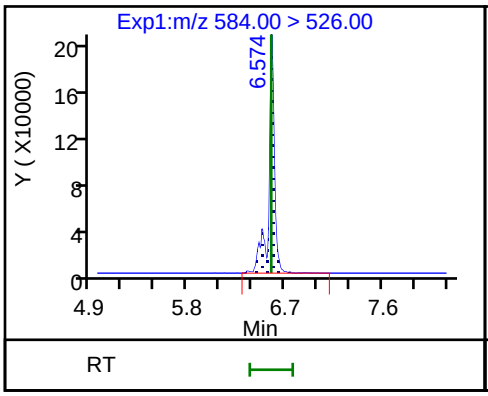
D 81 d5-NEtFOSAA



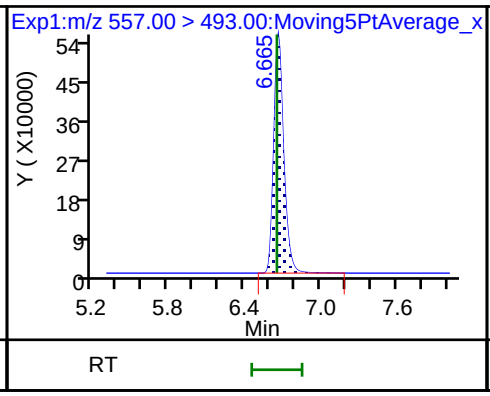
82 NEtFOSAA



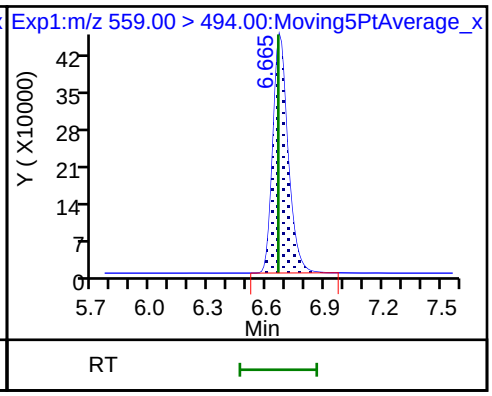
82 NEtFOSAA



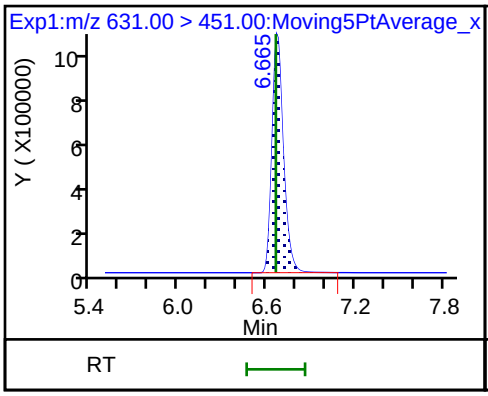
83 10:2 FTUCA



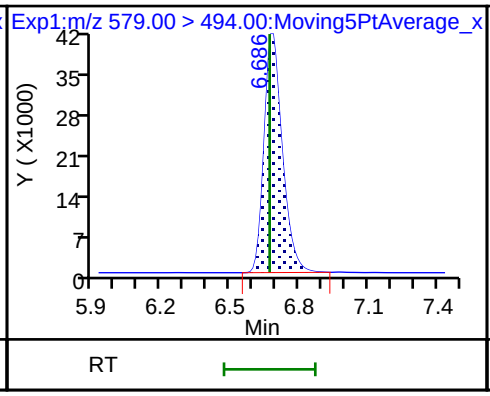
D 85 13C-10:2 FTUCA



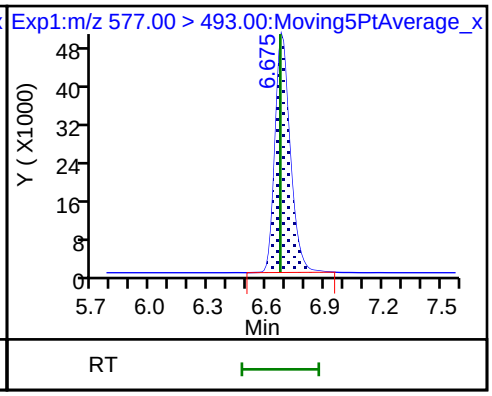
84 11ClFOS



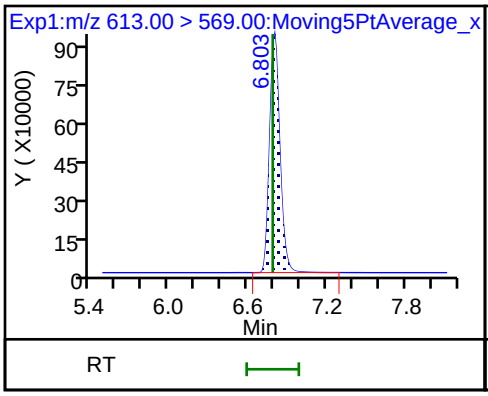
D 87 13C-10:2 FTCA



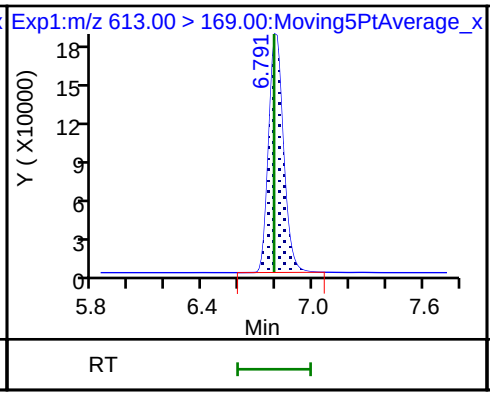
86 10:2 FTCA



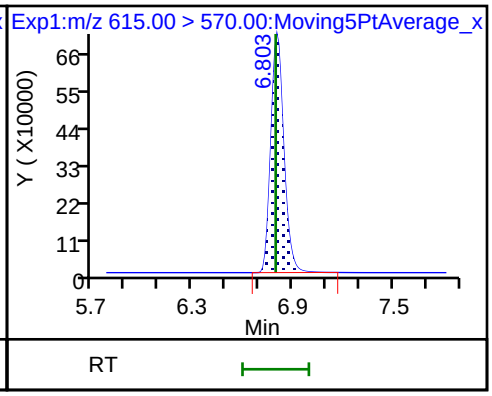
88 Perfluorododecanoic acid



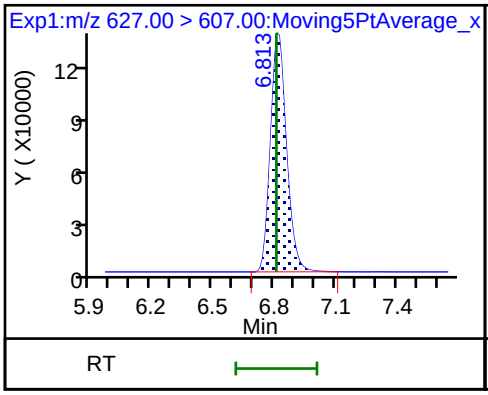
88 Perfluorododecanoic acid



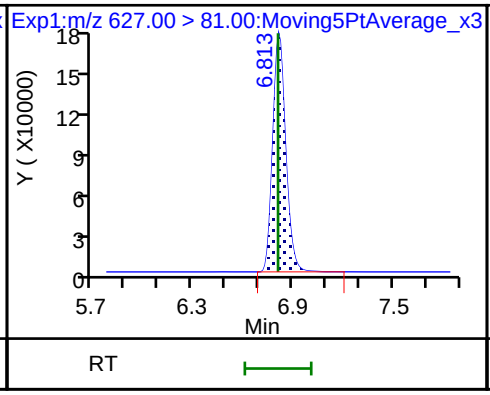
D 89 13C2-PFDoDA



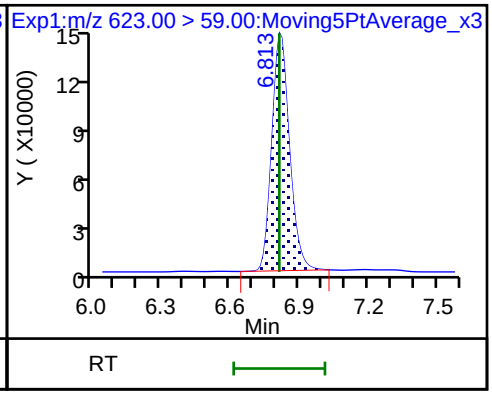
90 10:2 FTS



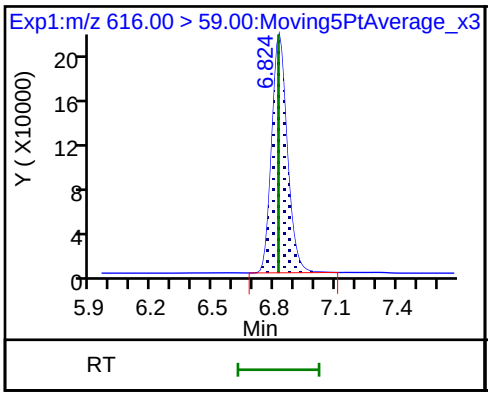
90 10:2 FTS



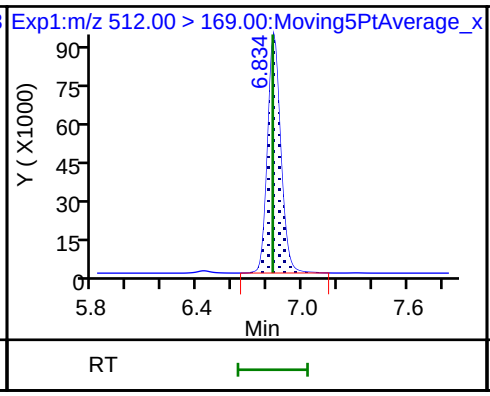
D 91 d7-N-MeFOSE-M



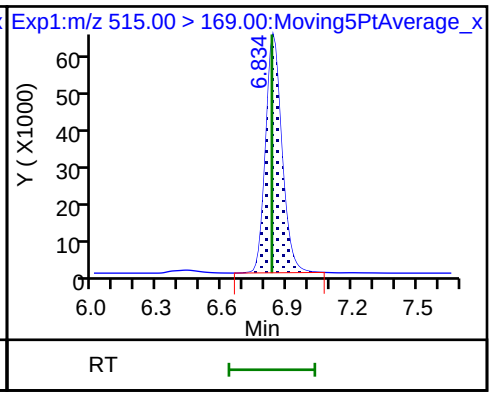
92 N-MeFOSE-M



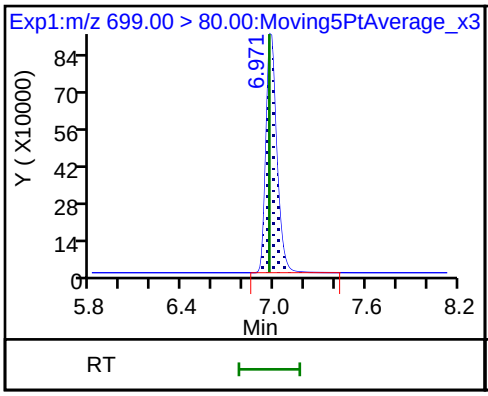
94 NMeFOSA



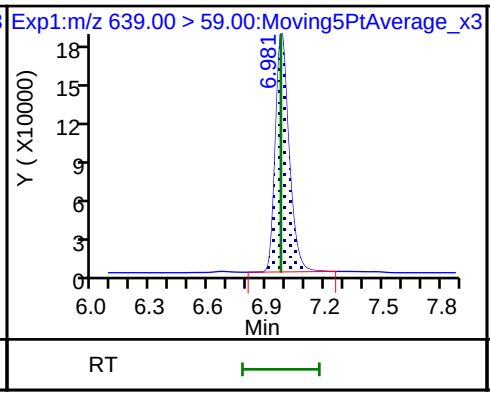
D 93 d3-NMePFOSA



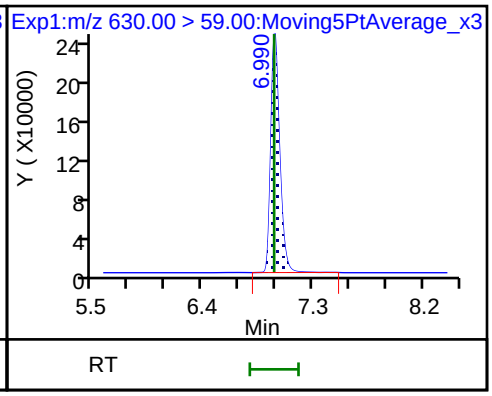
95 PFDoS



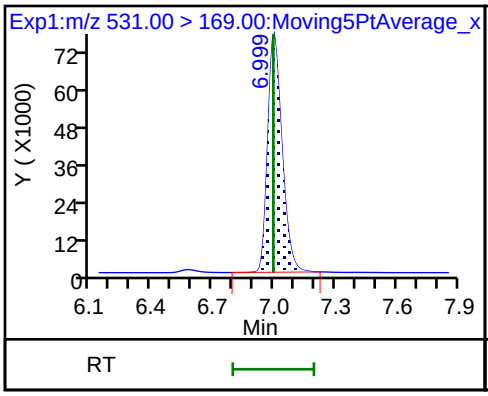
D 96 d9-N-EtFOSE-M



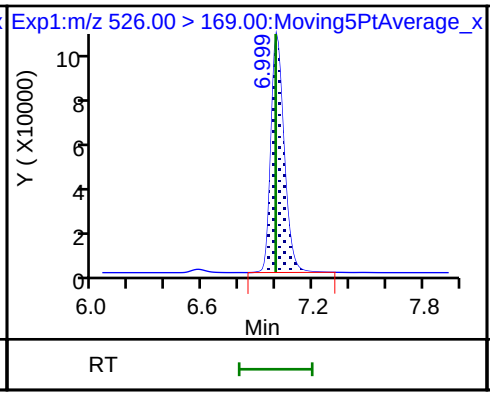
97 N-EtFOSE-M



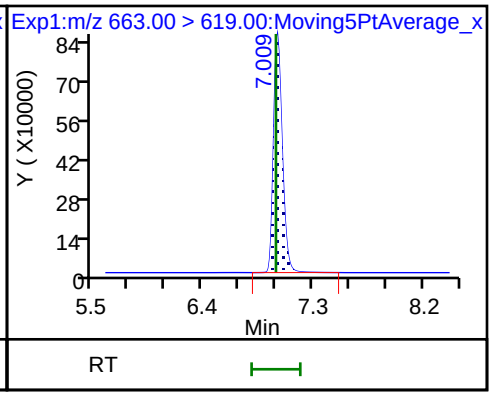
D 98 d5-NEtPFOSA



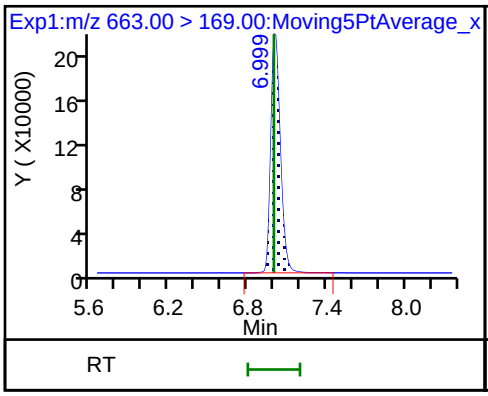
100 N-EtFOSA-M



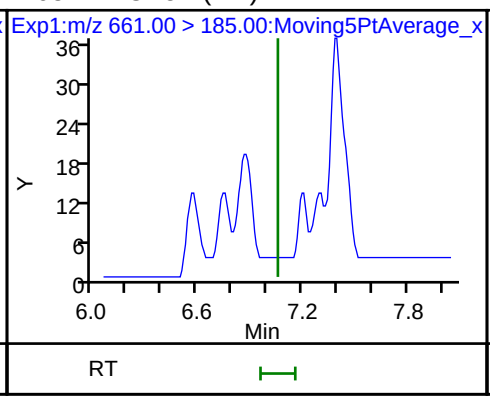
99 Perfluorotridecanoic acid



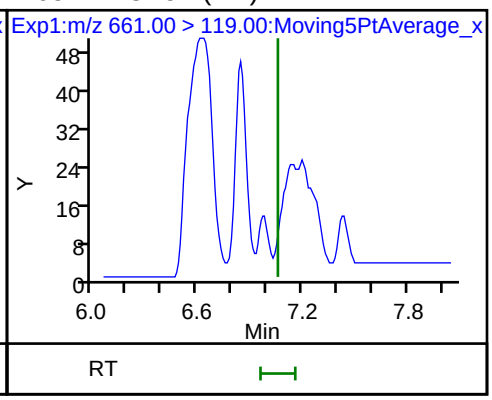
99 Perfluorotridecanoic acid



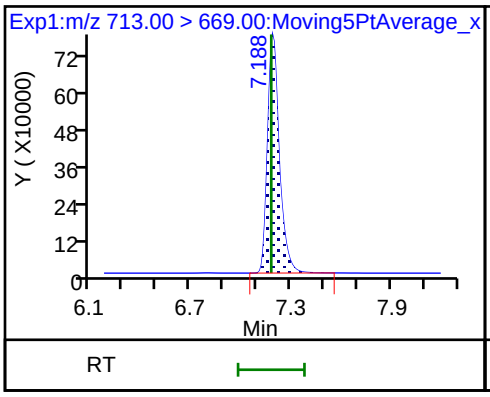
105 HFPOTeA (ND)



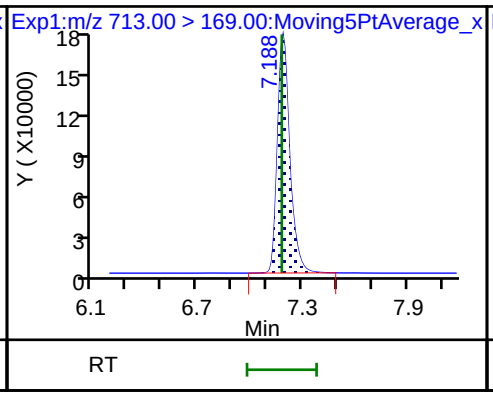
105 HFPOTeA (ND)



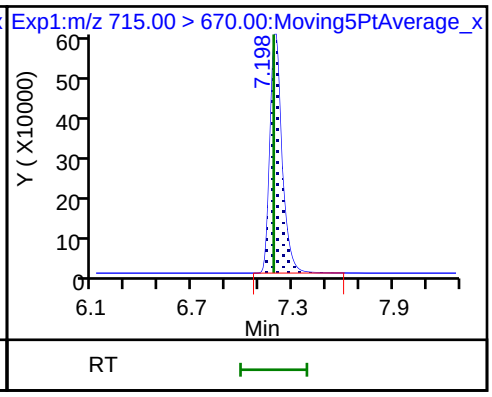
101 Perfluorotetradecanoic acid



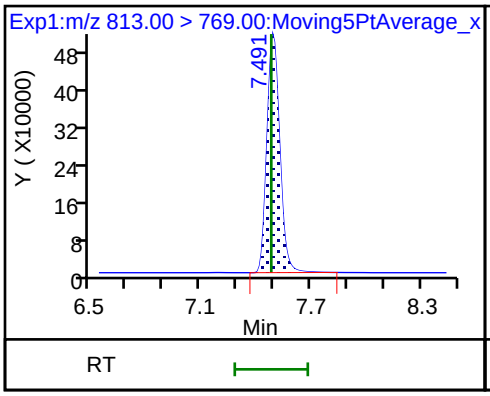
101 Perfluorotetradecanoic acid



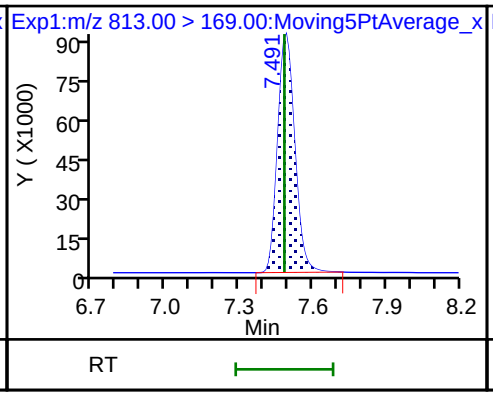
D 102 13C2 PFTeDA



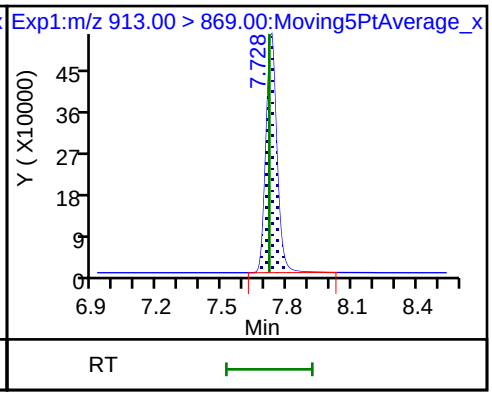
103 Perfluorohexadecanoic acid



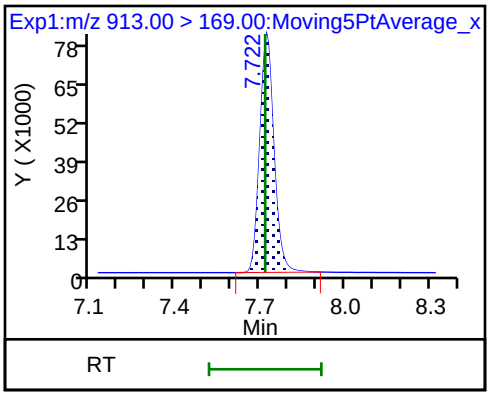
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

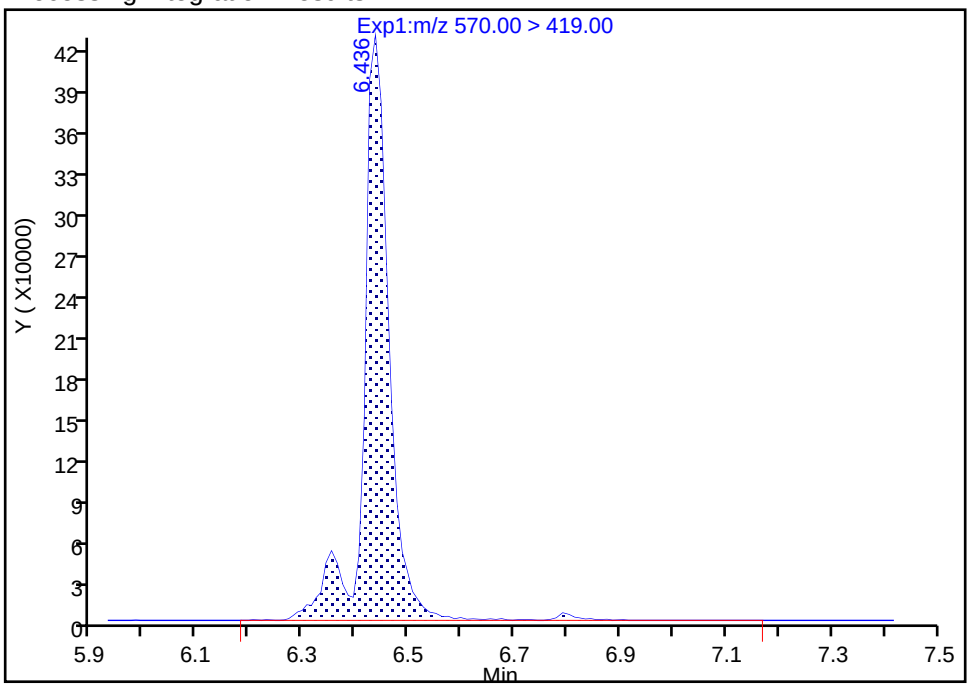
Data File:	\\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-16.d				
Injection Date:	02-Mar-2022 11:11:16	Instrument ID:	30728		
Lims ID:	410-73309-A-1-K MS				
Client ID:	Import-1-20220216				
Operator ID:	US19_USR_INS20261	ALS Bottle#:	6	Worklist Smp#:	8
Injection Vol:	4.0 ul	Dil. Factor:	1.0000		
Method:	PFAS_30728_XList	Limit Group:	LC - PFC IDA		
Column:	Gemini C18 50X3 50mm 3mm (3.00 mm)	Detector	EXP1		

76 NMeFOSAA, CAS: 2355-31-9

Signal: 1

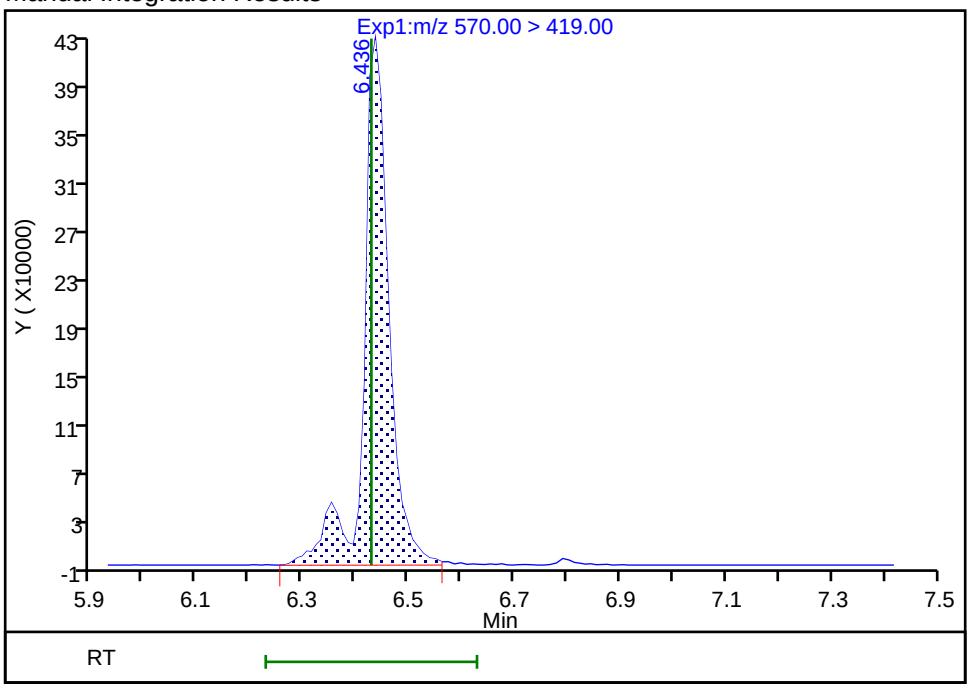
Processing Integration Results

RT: 6.44
Area: 1414385
Amount: 13.523107
Amount Units: ng/ml



Manual Integration Results

RT: 6.44
Area: 1393646
Amount: 13.324819
Amount Units: ng/ml



Reviewer: glicka, 02-Mar-2022 12:09:58

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73309-1
SDG No.:
Client Sample ID: Import-1-20220216 MSD
Lab Sample ID: 410-73309-1 MSD
Matrix: Solid
Lab File ID: 22MAR02-17.d
Analysis Method: 537 IDA
Date Collected: 02/16/2022 12:20
Extraction Method: SHAKE
Date Extracted: 03/01/2022 07:26
Sample wt/vol: 10.04(g)
Date Analyzed: 03/02/2022 11:22
Con. Extract Vol.: 20(mL)
Dilution Factor: 1
Injection Volume: 4(uL)
GC Column: Gemini C18 50mm ID: 3(mm)
% Moisture: 3.5
GPC Cleanup:(Y/N) N
Analysis Batch No.: 229099
Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	3.02		0.062	0.021
375-85-9	Perfluoroheptanoic acid	2.97		0.062	0.021
335-67-1	Perfluorooctanoic acid	3.08		0.062	0.021
375-95-1	Perfluorononanoic acid	3.16		0.062	0.021
335-76-2	Perfluorodecanoic acid	2.92		0.062	0.021
72629-94-8	Perfluorotridecanoic acid	3.02		0.062	0.021
376-06-7	Perfluorotetradecanoic acid	2.93		0.062	0.021
375-73-5	Perfluorobutanesulfonic acid	2.68		0.21	0.041
355-46-4	Perfluorohexanesulfonic acid	2.63		0.062	0.021
1763-23-1	Perfluorooctanesulfonic acid	2.74		0.062	0.021
2991-50-6	NEtFOSAA	2.49		0.21	0.021
2355-31-9	NMeFOSAA	2.67		0.21	0.021
375-92-8	Perfluoroheptanesulfonic acid	2.60		0.062	0.021
335-77-3	Perfluorodecanesulfonic acid	2.56		0.062	0.021
754-91-6	Perfluorooctanesulfonamide	2.83		0.062	0.021
375-22-4	Perfluorobutanoic acid	2.92		0.21	0.083
2058-94-8	Perfluoroundecanoic acid	3.10		0.062	0.021
307-55-1	Perfluorododecanoic acid	3.01		0.062	0.021
27619-97-2	6:2 Fluorotelomer sulfonic acid	2.59		0.21	0.062
39108-34-4	8:2 Fluorotelomer sulfonic acid	2.56		0.31	0.062
2706-90-3	Perfluoropentanoic acid	2.53		0.062	0.021

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73309-1

SDG No.:

Client Sample ID: Import-1-20220216 MSD Lab Sample ID: 410-73309-1 MSD

Matrix: Solid Lab File ID: 22MAR02-17.d

Analysis Method: 537 IDA Date Collected: 02/16/2022 12:20

Extraction Method: SHAKE Date Extracted: 03/01/2022 07:26

Sample wt/vol: 10.04(g) Date Analyzed: 03/02/2022 11:22

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 4(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 3.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 229099 Units: ng/g

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02280	M2-8:2 FTS	114		15-200
STL02279	M2-6:2 FTS	117		10-200
STL02577	13C5 PFHxA	100		10-174
STL01892	13C4 PFHpA	107		10-178
STL01052	13C8 PFOA	103		26-159
STL02578	13C9 PFNA	98		26-165
STL02579	13C6 PFDA	106		26-161
STL02580	13C7 PFUnA	107		12-173
STL02703	13C2-PFDoDA	100		11-166
STL02116	13C2 PFTeDA	99		10-169
STL02337	13C3 PFBS	111		27-179
STL02581	13C3 PFHxS	110		24-171
STL01054	13C8 PFOS	102		41-154
STL02118	d3-NMeFOSAA	89		10-178
STL02117	d5-NEtFOSAA	105		10-193
STL01056	13C8 FOSA	90		14-163
STL00992	13C4 PFBA	102		28-153
STL01893	13C5 PFPeA	105		24-161

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-17.d
Lims ID: 410-73309-A-1-L MSD
Client ID: Import-1-20220216
Sample Type: MSD
Inject. Date: 02-Mar-2022 11:22:21 ALS Bottle#: 7 Worklist Smp#: 9
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Sample Info: 410-73309-A-1-L MSD
Misc. Info.: Plate: 1 Rack: 1 410-0051478-009
Operator ID: US19_USR_INS20261 Instrument ID: 30728

Method: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\PFAS_30728_XList.m
Limit Group: LC - PFC IDA
Last Update: 02-Mar-2022 10:20:58 Calib Date: 01-Mar-2022 22:21:52
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\30728\20220301-51412.b\22MAR01MCAL-07.d

Column 1 : Gemini C18 50X3 50mm 3mm (3.00 mm) Det: EXP1
Process Host: CTX1617

First Level Reviewer: glicka Date: 02-Mar-2022 12:11:29
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
107 Sodium trifluoromethanesulfonate										
149.10 > 79.90	1.065	1.065	0.0	0.278	2090	0.0136		0.0	37.2	
1 MTP										
175.00 > 97.00	1.526	1.518	0.008	0.399	702177	12.6		100	18839	
2 PPF Acid										
163.00 > 119.00	1.887	1.874	0.013	0.493	3536082	13.1		104	12717	
3 PFMOAA										
179.00 > 85.00	2.902	2.891	0.011	0.758	2329177	10.1		80.6	21996	
4 R-PSDA										
441.00 > 241.00	3.807	3.792	0.015	0.852	29492	1.41		11.3	2367	
5 R-EVE										
405.00 > 217.00	3.807	3.793	0.014	0.995	22801	0.4332		3.5	1814	
D 6 13C4 PFBA										
217.00 > 172.00	3.828	3.816	0.012	1.000	5776737	10.2		102	123967	
7 Perfluorobutanoic acid										
213.00 > 169.00	3.828	3.816	0.012	1.000	7032364	14.1		113	23481	
* 8 13C3-PFBA										
216.00 > 172.00	3.828	3.817	0.011		2615214	5.00			7756	
9 Hydrolyzed PSDA										
439.00 > 343.00	3.828	3.817	0.011	0.856	75947	0.9546		7.6	4899	
10 PMPA										
229.00 > 185.00	3.970	3.956	0.014	1.037	4021904	13.6		109	54978	
11 PFPrS										
249.00 > 99.00	4.034	4.020	0.014	1.054	1746517	13.2		115	88885	
12 NVHOS										
297.00 > 135.00	4.073	4.060	0.013	0.911	1861908	13.4		108	93852	
13 PFECA F										
229.00 > 85.00	4.093	4.082	0.011	1.069	7765719	14.2		113	15114	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
14 PFO2HxA										
245.00 > 85.00	4.300	4.286	0.014	1.123	3026869	13.9		111	139886	
15 3:3 FTCA										
241.00 > 177.00	4.416	4.403	0.013	1.000	276888	7.31		58.5	17241	
16 Perfluoropentanoic acid										
263.00 > 219.00	4.416	4.404	0.012	1.000	6818705	12.2		98.0	37379	
D 17 13C5 PFPeA										
268.00 > 223.00	4.416	4.404	0.012	1.153	4793082	10.5		105	131993	
18 Perfluorobutanesulfonic acid										
299.00 > 80.00	4.471	4.460	0.011	1.000	6483447	13.0	Target=3.14	118	98219	
299.00 > 99.00	4.471	4.460	0.011	1.000	1999547		3.24(1.57-4.71)		60463	
D 19 13C3 PFBS										
302.00 > 80.00	4.471	4.462	0.009	1.168	4791241	10.4		111	251382	
20 PEPA										
279.00 > 235.00	4.526	4.517	0.009	1.182	1665505	16.2		129	21161	
21 PFECA A										
279.00 > 85.00	4.555	4.543	0.012	1.019	6632289	12.6		101	271487	
22 PES										
315.00 > 135.00	4.654	4.638	0.016	1.041	16421515	11.1		100	728662	
23 PFECA B										
201.00 > 85.00	4.785	4.771	0.014	1.070	9905091	12.3	Target=1.81	98.0	74739	
295.00 > 201.00	4.785	4.771	0.014	1.070	5398135		1.83(0.90-2.71)		275551	
110 FBSA										
299.00 > 78.00		4.792				ND				
24 4:2 FTS										
327.00 > 307.00	4.815	4.803	0.012	0.998	3002389	12.0	Target=1.33	102	151136	
327.00 > 81.00	4.815	4.803	0.012	0.998	2235767		1.34(0.66-1.99)		91260	
D 25 M2-4:2 FTS										
329.00 > 81.00	4.825	4.806	0.019	0.854	885212	11.7		126	35267	
26 Perfluorohexanoic acid										
313.00 > 269.00	4.855	4.843	0.012	1.000	7052365	14.7	Target=12.64	117	85869	
313.00 > 119.00	4.855	4.843	0.012	1.000	538161		13.10(6.32-18.96)		21192	
D 27 13C5 PFHxA										
318.00 > 273.00	4.855	4.846	0.009	0.860	6207794	10.0		100	199464	
28 Perfluoropentanesulfonic acid										
349.00 > 80.00	4.875	4.863	0.012	1.090	6249631	13.2	Target=3.66	113	410919	
349.00 > 99.00	4.875	4.863	0.012	1.090	1625161		3.85(1.83-5.49)		106524	
29 PFO3OA										
311.00 > 85.00	4.915	4.903	0.012	1.284	3384902	12.7		101	216752	
30 HFPO-DA										
329.00 > 285.00	4.997	4.978	0.019	1.000	2619448	13.5		108	75128	
D 31 13C3 HFPO-DA										
332.00 > 287.00	4.997	4.983	0.014	0.885	1565630	10.8		108	105056	
32 Hydro-EVE Acid										
427.00 > 283.00	5.210	5.201	0.009	1.361	12048238	15.2		121	11349	
33 R-PSDCA										
397.00 > 217.00	5.221	5.209	0.012	1.168	15046233	11.9		94.8	698683	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
108 FBSEE										
386.00 > 166.00		5.220				ND				
386.00 > 80.00		5.220								
34 Hydro-PS Acid										M
463.00 > 263.00	5.275	5.246	0.029	1.180	12217567	14.2		113	102929	M
35 Perfluorohexanesulfonic acid										
399.00 > 80.00	5.265	5.254	0.011	1.000	5978425	12.7	Target=3.57	112	1839943	
399.00 > 99.00	5.265	5.254	0.011	1.000	1669908		3.58(1.78-5.35)		3153	
36 Perfluoroheptanoic acid										
363.00 > 319.00	5.265	5.254	0.011	1.000	9404299	14.4	Target=3.54	115	346634	
363.00 > 169.00	5.265	5.254	0.011	1.000	2650648		3.55(1.77-5.31)		98496	
D 37 13C3 PFHxS										
402.00 > 80.00	5.265	5.254	0.011	0.932	4574608	10.4		110	286735	
D 38 13C4 PFHpA										
367.00 > 322.00	5.265	5.255	0.010	0.932	7127908	10.7		107	188470	
39 DONA										
377.00 > 251.00	5.318	5.303	0.015	1.010	10957241	13.3		112	418012	
40 PFECA G										
379.00 > 185.00	5.340	5.322	0.018	1.395	11517101	12.4		98.9	442256	
41 5:3 FTCA										
341.00 > 237.00	5.349	5.338	0.011	1.016	853991	7.00	Target=3.04	56.0	54870	
341.00 > 217.00	5.349	5.338	0.011	1.016	289831		2.95(1.52-4.55)		18730	
42 6:2 FTUCA										
357.00 > 293.00	5.369	5.359	0.010	1.000	5870172	13.4		108	297082	
D 43 13C-6:2 FTUCA										
359.00 > 294.00	5.369	5.361	0.008	0.951	3522222	9.66		96.6	118917	
44 6:2 FTCA										
377.00 > 293.00	5.386	5.378	0.008	0.998	700037	13.1		105	29038	
D 45 13C-6:2 FTCA										
379.00 > 294.00	5.394	5.379	0.015	0.955	516289	9.00		90.0	27148	
46 PFO4DA										
377.00 > 85.00	5.445	5.435	0.010	1.422	4628884	14.2		114	1102	
47 PS Acid										
443.00 > 147.00	5.488	5.479	0.009	1.228	14824	0.0485		0.4	981	
48 EVE Acid										
407.00 > 263.00	5.516	5.500	0.016	1.441	49931	0.0611		0.5	3156	
49 PFECHS										
461.00 > 381.00	5.584	5.569	0.015	1.061	7848488	12.4	Target=1.56	108	326025	
461.00 > 99.00	5.584	5.569	0.015	1.061	5109729		1.54(0.78-2.34)		265014	
50 6:2 FTS										
427.00 > 407.00	5.628	5.613	0.015	1.000	1438932	12.6	Target=1.19	106	96862	
427.00 > 81.00	5.619	5.613	0.006	0.998	1211031		1.19(0.60-1.79)		60716	
D 52 M2-6:2 FTS										
429.00 > 81.00	5.628	5.614	0.014	0.997	299118	11.1		117	19884	
51 Perfluoroheptanesulfonic acid										
449.00 > 80.00	5.628	5.618	0.010	1.069	5863857	12.6	Target=3.73	106	302577	
449.00 > 99.00	5.628	5.618	0.010	1.069	1477132		3.97(1.87-5.60)		75868	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
53 Perfluorooctanoic acid										
413.00 > 369.00	5.638	5.630	0.008	0.998	7515266	14.9	Target=2.20	119	1474625	
413.00 > 169.00	5.647	5.630	0.017	1.000	3232720		2.32(1.10-3.30)		1174712	
D 54 13C8 PFOA										
421.00 > 376.00	5.647	5.631	0.016	1.000	6743212	10.3		103	335179	
* 55 13C2 PFOA										
415.00 > 370.00	5.647	5.631	0.016		2671847	5.00			179513	
106 FHxSA										
399.00 > 78.00		5.692				ND				
56 TAF										
443.00 > 85.00	5.888	5.879	0.009	1.538	4085541	13.3		106	172797	
57 Perfluorooctanesulfonic acid										
499.00 > 80.00	5.961	5.954	0.007	0.999	6503769	13.3	Target=4.38	115	6187	
499.00 > 99.00	5.961	5.954	0.007	0.999	1434645		4.53(2.19-6.58)		3377	
* 59 13C4 PFOS										
503.00 > 80.00	5.970	5.955	0.015		2419641	4.78			103469	
D 58 13C8 PFOS										
507.00 > 80.00	5.970	5.955	0.015	1.000	4795469	9.78		102	46074	
61 Perfluorononanoic acid										
463.00 > 419.00	5.987	5.973	0.014	1.000	6287481	15.3	Target=3.95	123	166329	
463.00 > 169.00	5.979	5.973	0.006	0.999	1549190		4.06(1.97-5.92)		81188	
D 60 13C9 PFNA										
472.00 > 427.00	5.987	5.975	0.012	1.003	4713547	9.82		98.2	331552	
109 HFPO-TrA										
496.00 > 185.00		6.068				ND				
62 7:3 FTCA										
441.00 > 337.00	6.088	6.077	0.011	1.129	940697	7.50		60.0	47573	
63 8:2 FTUCA										
457.00 > 393.00	6.098	6.084	0.014	1.000	4554937	13.4		107	151606	
D 64 13C-8:2 FTUCA										
459.00 > 394.00	6.098	6.085	0.013	0.969	3614972	9.89		98.9	105611	
65 8:2 FTCA										
477.00 > 393.00	6.108	6.099	0.009	0.998	477240	12.5		99.9	23893	
D 66 13C-8:2 FTCA										
479.00 > 394.00	6.118	6.102	0.016	0.972	382908	9.31		93.1	25990	
67 9ClFOS										
531.00 > 351.00	6.146	6.130	0.016	1.030	9838276	14.0		120	91779	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	6.269	6.254	0.015	1.050	6473749	13.3	Target=4.33	111	356270	
549.00 > 99.00	6.260	6.254	0.006	1.049	1489742		4.35(2.16-6.49)		82305	
69 Perfluorodecanoic acid										
513.00 > 469.00	6.286	6.279	0.007	0.999	7234797	14.1	Target=7.98	113	258541	
513.00 > 169.00	6.286	6.279	0.007	0.999	903176		8.01(3.99-11.97)		65045	
D 71 13C6 PFDA										
519.00 > 474.00	6.294	6.282	0.012	1.000	6085878	10.6		106	435038	
* 70 13C2 PFDA										
515.00 > 470.00	6.294	6.282	0.012		2997927	5.00			212403	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
72 8:2 FTS										
527.00 > 507.00	6.294	6.282	0.012	1.000	1191316	12.4	Target=1.01	104	85596	
527.00 > 81.00	6.294	6.282	0.012	1.000	1240384		0.96(0.50-1.51)		88357	
D 73 M2-8:2 FTS										
529.00 > 81.00	6.294	6.285	0.009	1.000	161590	10.9		114	11204	
75 Perfluorooctanesulfonamide										
498.00 > 78.00	6.380	6.371	0.009	1.000	9043580	13.7		110	436944	
D 74 13C8 FOSA										
506.00 > 78.00	6.380	6.375	0.005	1.014	6656040	9.01		90.1	322241	
D 77 d3-NMeFOSAA										
573.00 > 419.00	6.442	6.428	0.014	1.023	1431089	8.89		88.9	12166	
76 NMeFOSAA										
570.00 > 419.00	6.442	6.429	0.013	1.000	1634610	13.0	Target=1.69	104	501275	
570.00 > 483.00	6.432	6.429	0.003	0.998	974437		1.68(0.85-2.54)		1907	
78 Perfluorodecanesulfonic acid										
599.00 > 80.00	6.534	6.522	0.012	1.095	5928788	12.4	Target=4.28	103	274585	
599.00 > 99.00	6.534	6.522	0.012	1.095	1331916		4.45(2.14-6.42)		61974	
79 Perfluoroundecanoic acid										
563.00 > 519.00	6.558	6.550	0.008	0.998	7279028	15.0	Target=7.28	120	163068	
563.00 > 169.00	6.558	6.550	0.008	0.998	980147		7.43(3.64-10.92)		44165	
D 80 13C7 PFUnA										
570.00 > 525.00	6.570	6.557	0.013	1.044	6498242	10.7		107	290241	
D 81 d5-NEtFOSAA										
589.00 > 419.00	6.582	6.569	0.013	1.046	1207329	10.5		105	43772	
82 NEtFOSAA										
584.00 > 419.00	6.570	6.570	0.0	0.998	1398646	12.1	Target=1.63	96.5	403947	
584.00 > 526.00	6.582	6.570	0.012	1.000	904987		1.55(0.82-2.45)		1498	
83 10:2 FTUCA										
557.00 > 493.00	6.661	6.654	0.007	0.998	3417457	12.3		98.5	157200	
D 85 13C-10:2 FTUCA										
559.00 > 494.00	6.672	6.660	0.012	1.060	2885820	8.97		89.7	133726	
84 11ClFOS										
631.00 > 451.00	6.672	6.660	0.012	1.118	6878187	13.2		114	322010	
D 87 13C-10:2 FTCA										
579.00 > 494.00	6.682	6.670	0.012	1.062	240755	8.04		80.4	14900	
86 10:2 FTCA										
577.00 > 493.00	6.682	6.670	0.012	1.000	286273	12.2		97.8	17411	
88 Perfluorododecanoic acid										
613.00 > 569.00	6.799	6.787	0.012	1.000	6168169	14.6	Target=4.76	117	161663	
613.00 > 169.00	6.799	6.787	0.012	1.000	1235964		4.99(2.38-7.14)		56335	
D 89 13C2-PFDoDA										
615.00 > 570.00	6.799	6.796	0.003	1.080	4635165	10.0		100	168830	
90 10:2 FTS										
627.00 > 607.00	6.821	6.810	0.011	1.084	932564	13.1	Target=0.75	109	58337	
627.00 > 81.00	6.821	6.810	0.011	1.084	1130491		0.82(0.38-1.13)		52033	
D 91 d7-N-MeFOSE-M										
623.00 > 59.00	6.821	6.813	0.008	1.084	894447	7.44		74.4	10411	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
92 N-MeFOSE-M										
616.00 > 59.00	6.821	6.820	0.001	1.000	1219002	13.4		107	23143	
94 NMeFOSA										
512.00 > 169.00	6.832	6.829	0.003	1.000	311655	14.4		115	8364	
D 93 d3-NMePFOSA										
515.00 > 169.00	6.832	6.829	0.003	1.085	222285	2.91		29.1	4737	
95 PFDoS										
699.00 > 80.00	6.978	6.967	0.011	1.169	5561821	13.0		107	287537	
D 96 d9-N-EtFOSE-M										
639.00 > 59.00	6.978	6.973	0.005	1.109	1007144	7.40		74.0	11538	
97 N-EtFOSE-M										
630.00 > 59.00	6.988	6.981	0.007	1.001	1374159	13.6		108	46513	
D 98 d5-NEtPFOSA										
531.00 > 169.00	6.997	6.995	0.002	1.112	217362	3.06		30.6	5510	
100 N-EtFOSA-M										
526.00 > 169.00	7.006	6.996	0.010	1.001	312491	13.8		110	7758	
99 Perfluorotridecanoic acid										
663.00 > 619.00	7.006	6.996	0.010	1.030	5377736	14.7	Target=4.11	117	182553	
663.00 > 169.00	7.006	6.996	0.010	1.030	1255144		4.28(2.06-6.17)		84915	
105 HFPOTeA										
661.00 > 185.00		7.058				ND				
661.00 > 119.00		7.058								
101 Perfluorotetradecanoic acid										
713.00 > 669.00	7.186	7.181	0.005	0.999	4617926	14.2	Target=4.34	114	85138	
713.00 > 169.00	7.186	7.181	0.005	0.999	1060417		4.35(2.17-6.50)		54548	
D 102 13C2 PFTeDA										
715.00 > 670.00	7.196	7.184	0.012	1.143	3679870	9.91		99.1	126068	
103 Perfluorohexadecanoic acid										
813.00 > 769.00	7.489	7.483	0.006	1.041	3051358	14.2	Target=5.44	114	78050	
813.00 > 169.00	7.489	7.483	0.006	1.041	530131		5.76(2.72-8.16)		21833	
104 Perfluorooctadecanoic acid										
913.00 > 869.00	7.727	7.717	0.010	1.074	2227462	14.5	Target=6.37	116	59012	
913.00 > 169.00	7.721	7.717	0.004	1.073	345039		6.46(3.18-9.55)		19977	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

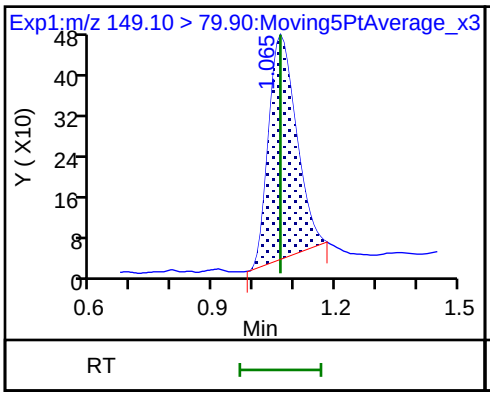
PFC_IS_MOD_00279 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Mar-2022 12:25:36 Chrom Revision: 2.3 16-Feb-2022 17:52:00

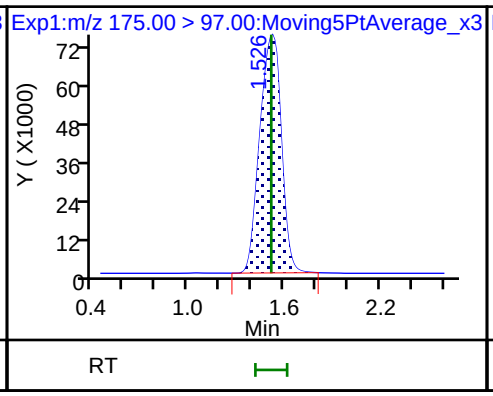
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\30728\20220302-51478.b\22MAR02-17.d
Injection Date: 02-Mar-2022 11:22:21 Instrument ID: 30728
Lims ID: 410-73309-A-1-L MSD
Client ID: Import-1-20220216
Operator ID: US19_USR_INS20261 ALS Bottle#: 7 Worklist Smp#: 9
Injection Vol: 4.0 ul Dil. Factor: 1.0000
Method: PFAS_30728_XList Limit Group: LC - PFC IDA

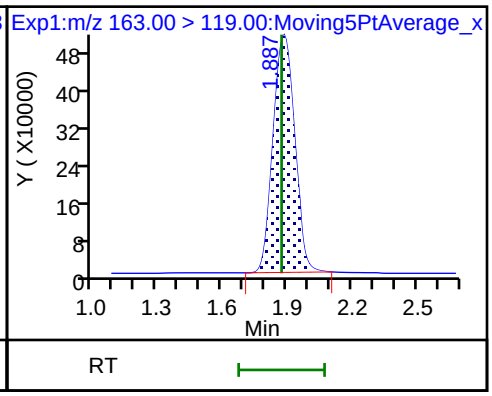
107 Sodium trifluoromethanesulfonate



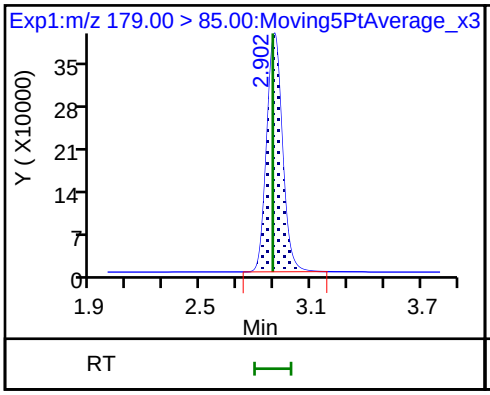
1 MTP



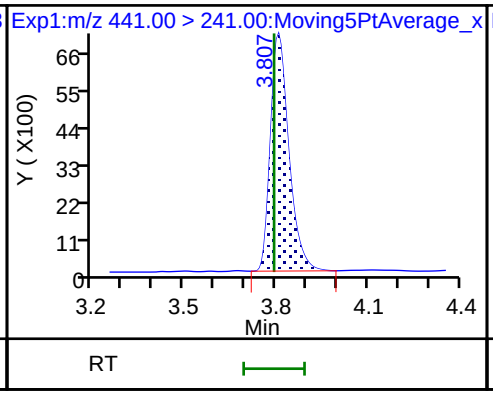
2 PPF Acid



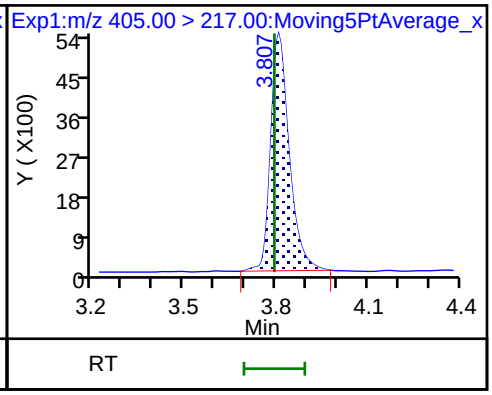
3 PFMOAA



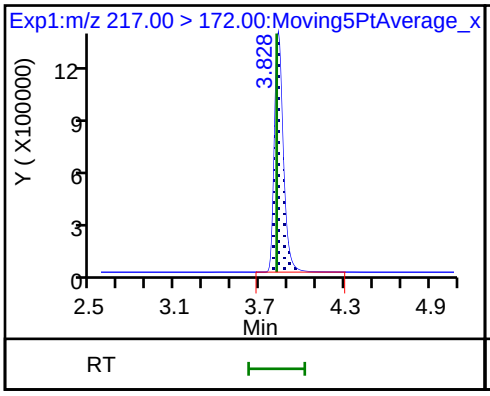
4 R-PSDA



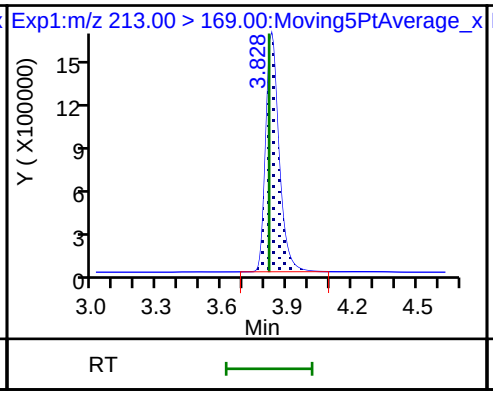
5 R-EVE



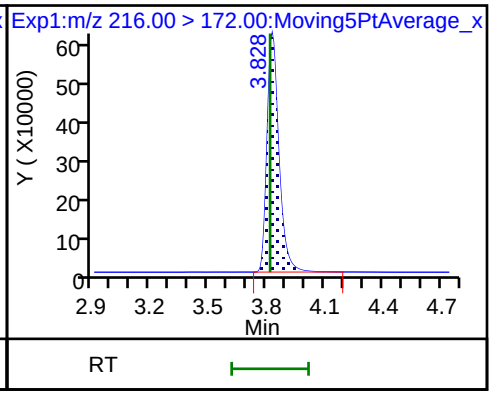
D 6 13C4 PFBA



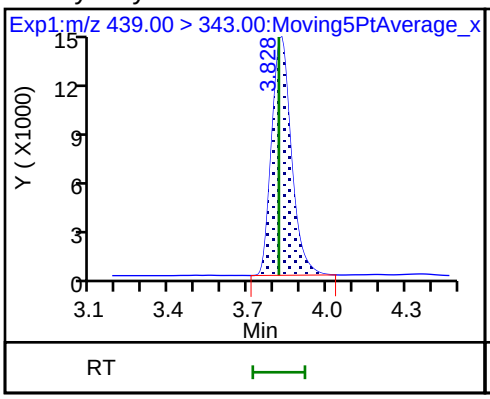
7 Perfluorobutanoic acid



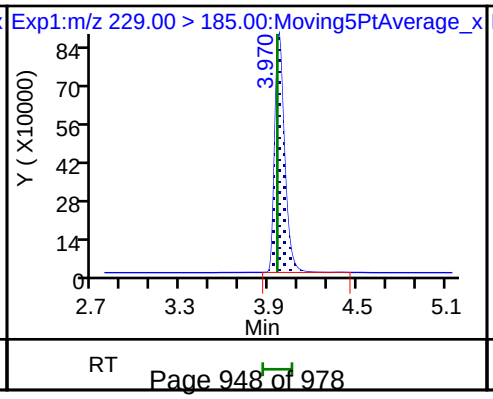
* 8 13C3-PFBA



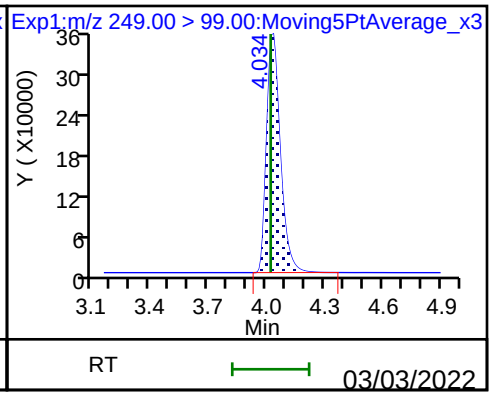
9 Hydrolyzed PSDA



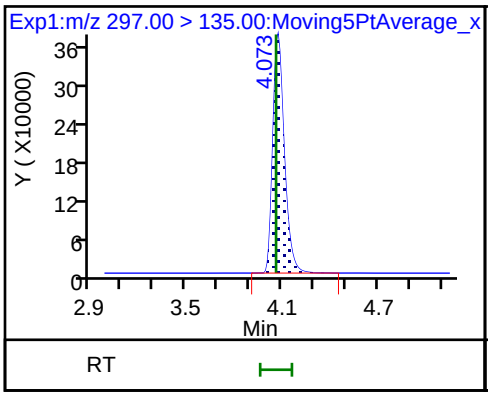
10 PMPA



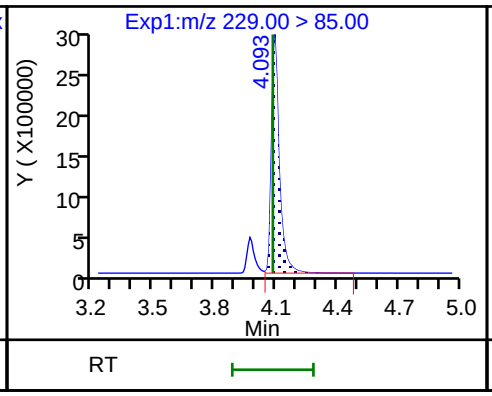
11 PFPrS



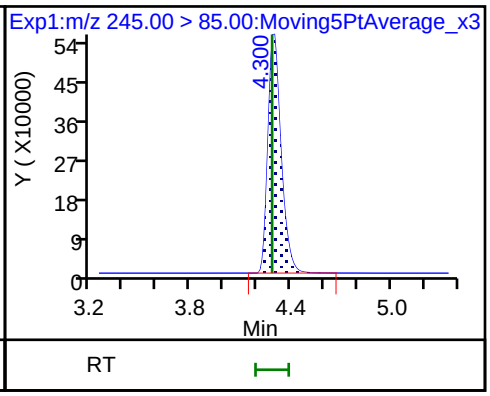
12 NVHOS



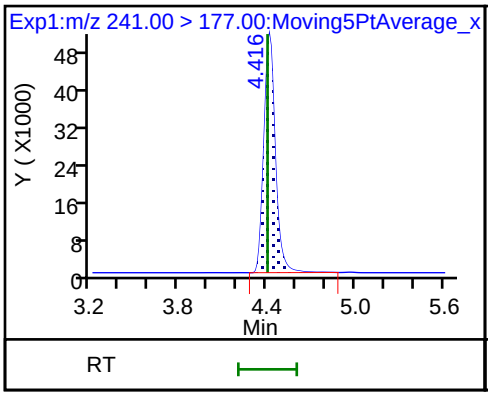
13 PFECA F



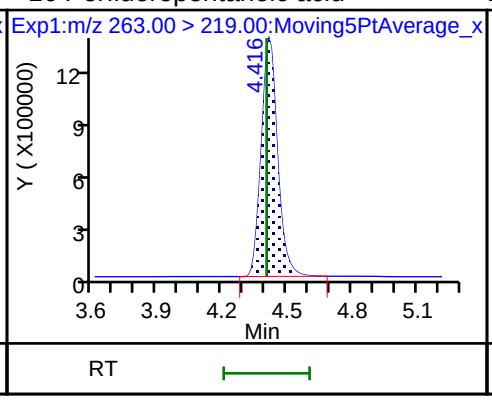
14 PFO2HxA



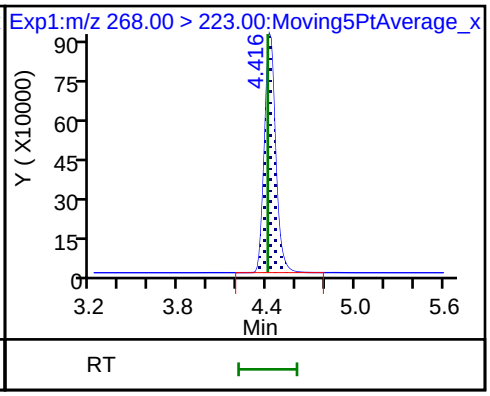
15 3:3 FTCA



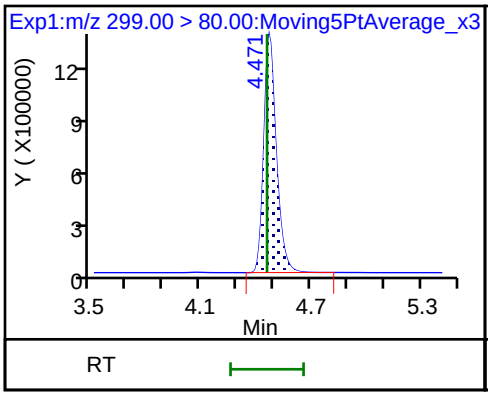
16 Perfluoropentanoic acid



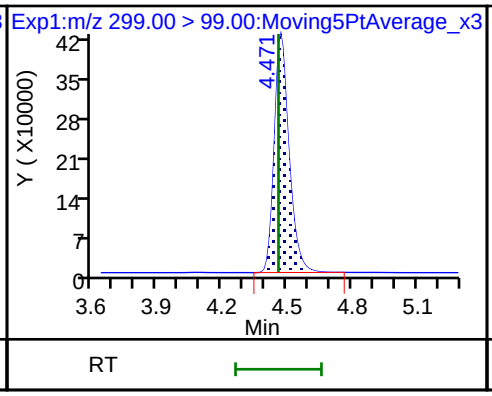
D 17 13C5 PFPeA



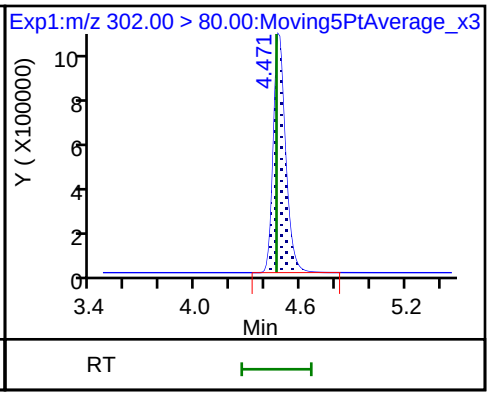
18 Perfluorobutanesulfonic acid



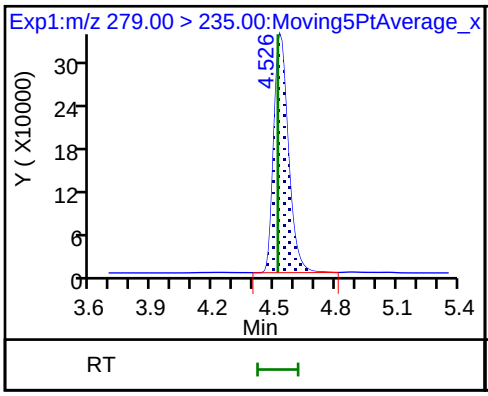
18 Perfluorobutanesulfonic acid



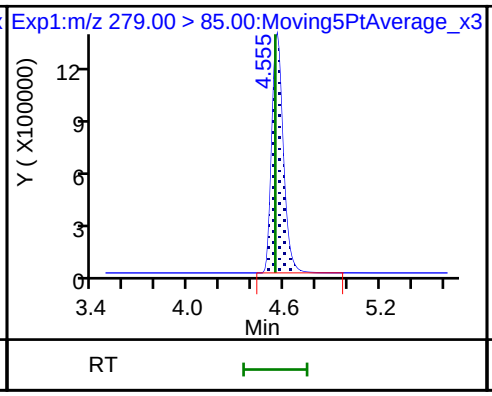
D 19 13C3 PFBS



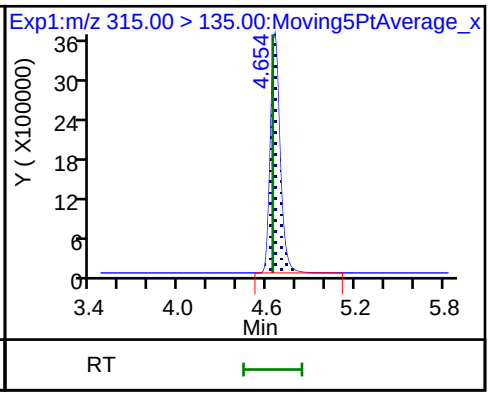
20 PEPA



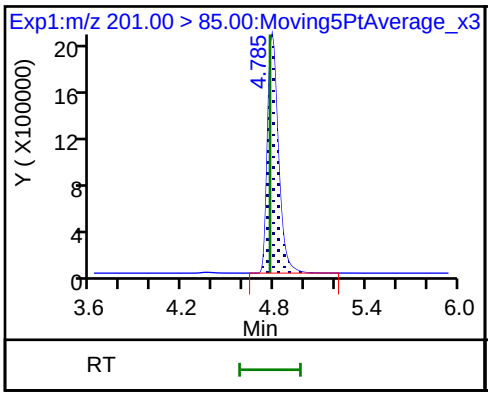
21 PFECA A



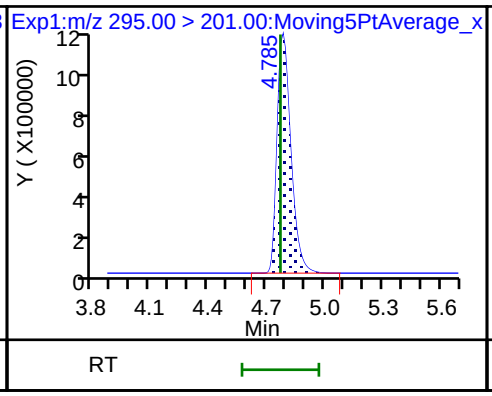
22 PES



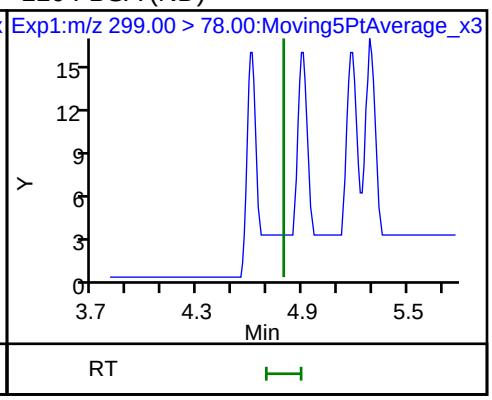
23 PFECA B



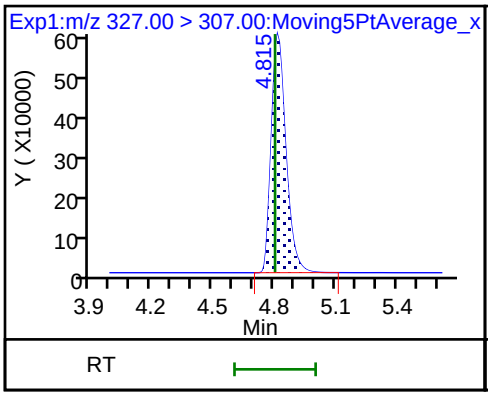
23 PFECA B



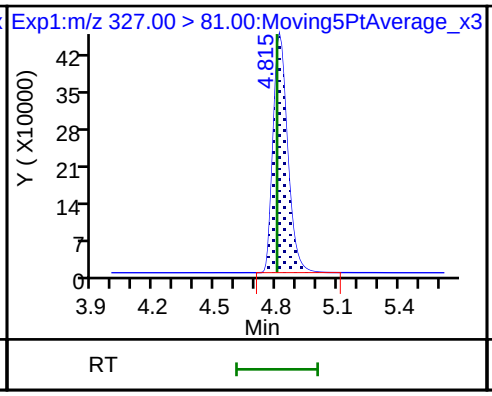
110 FBSA (ND)



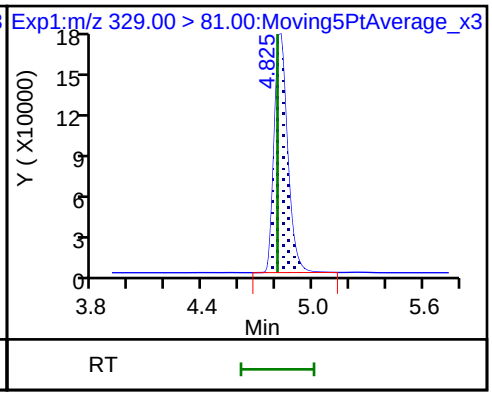
24 4:2 FTS



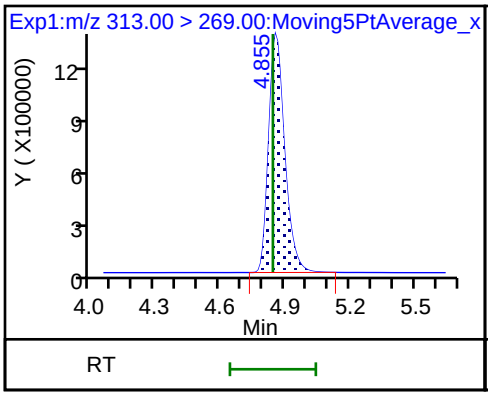
24 4:2 FTS



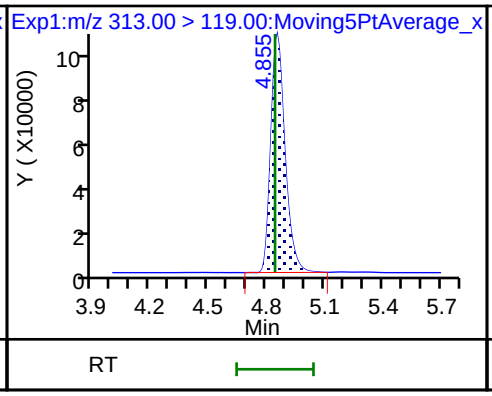
D 25 M2-4:2 FTS



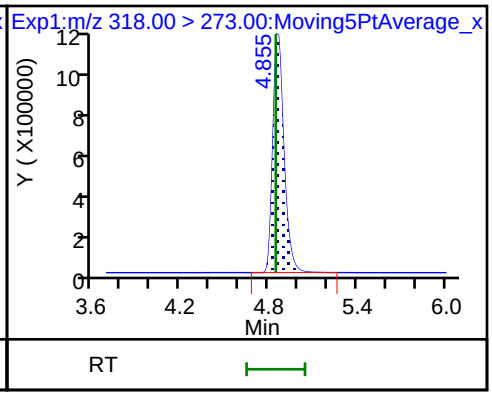
26 Perfluorohexanoic acid



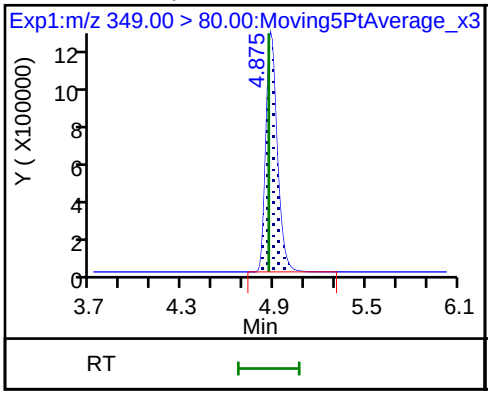
26 Perfluorohexanoic acid



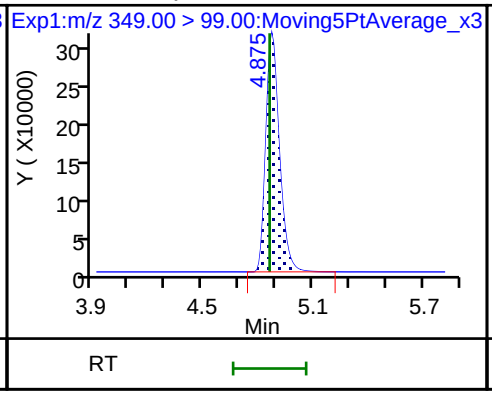
D 27 13C5 PFHxA



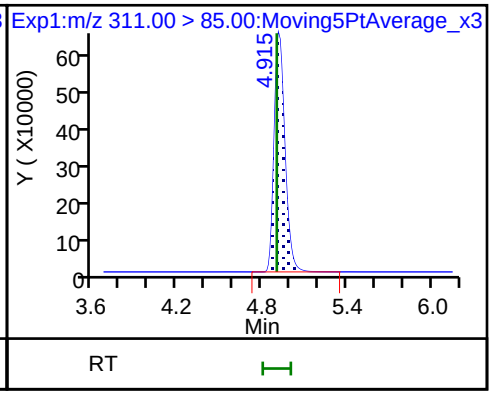
28 Perfluoropentanesulfonic acid



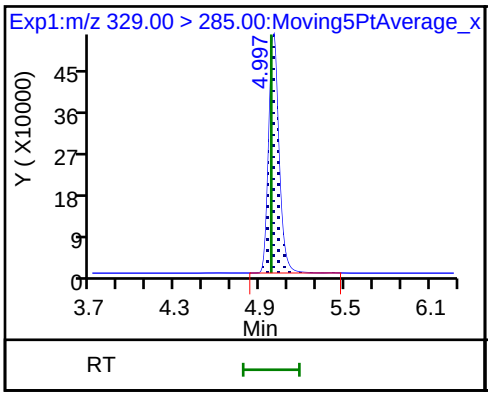
28 Perfluoropentanesulfonic acid



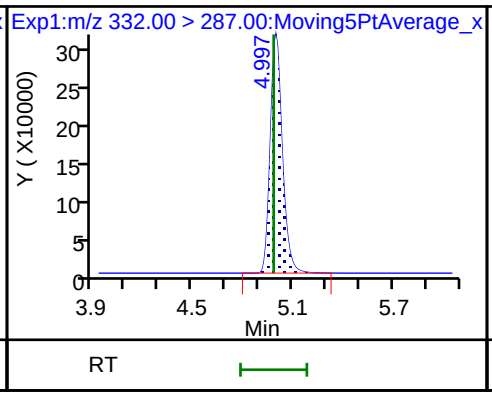
29 PFO3OA



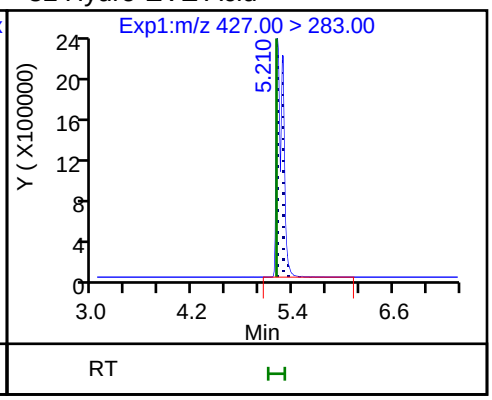
30 HFPO-DA



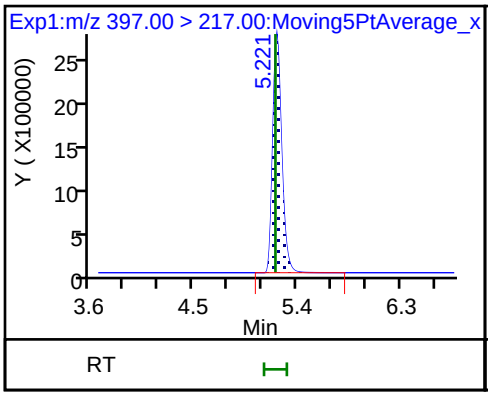
D 31 13C3 HFPO-DA



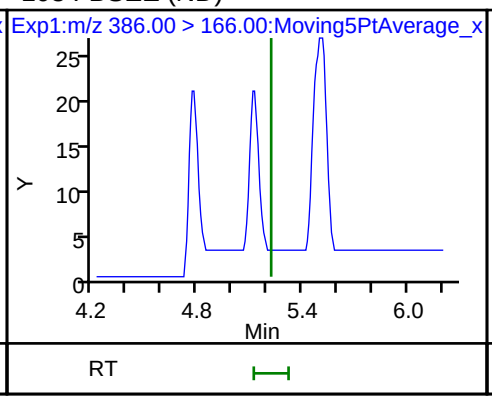
32 Hydro-EVE Acid



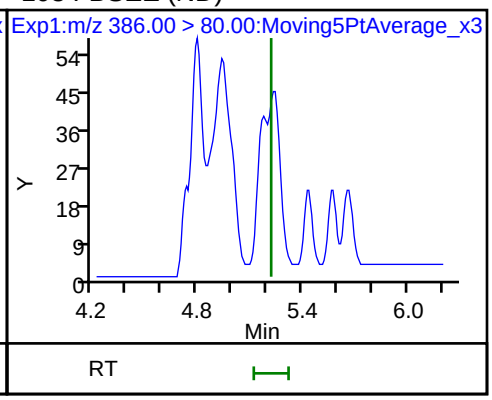
33 R-PSDCA



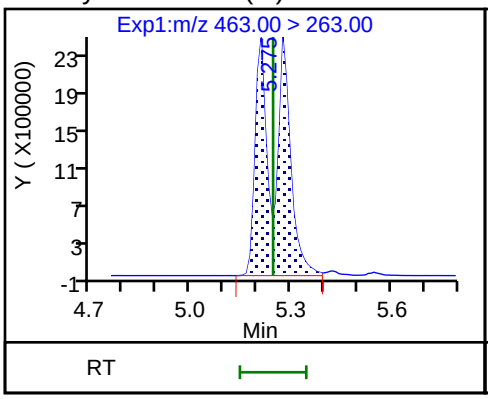
108 FBSEE (ND)



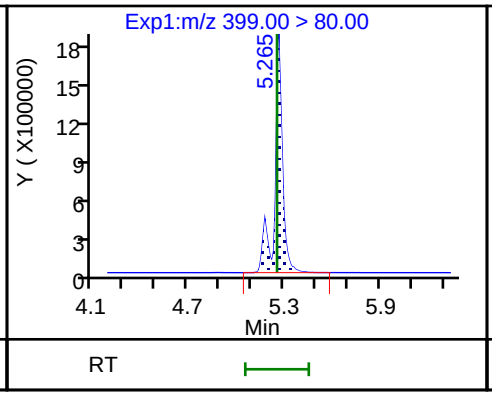
108 FBSEE (ND)



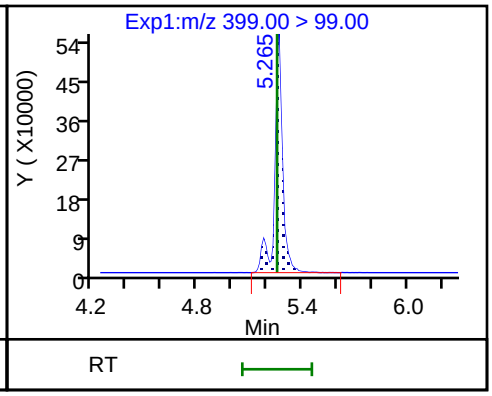
34 Hydro-PS Acid (M)



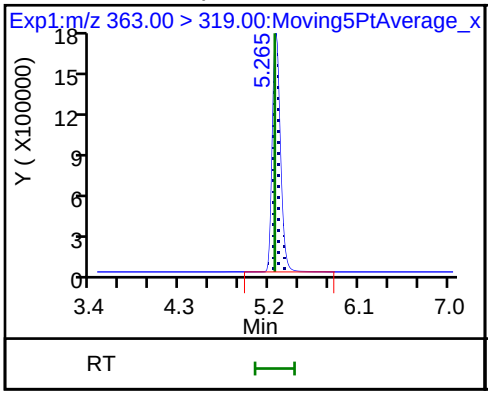
35 Perfluorohexanesulfonic acid



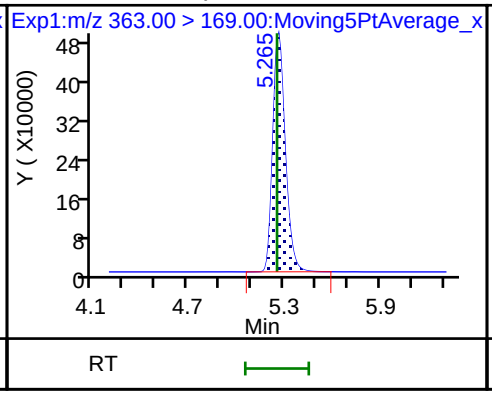
35 Perfluorohexanesulfonic acid



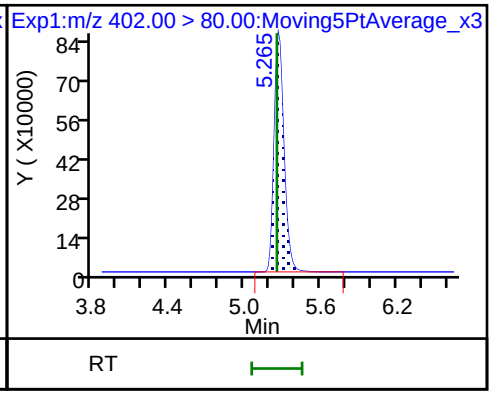
36 Perfluoroheptanoic acid



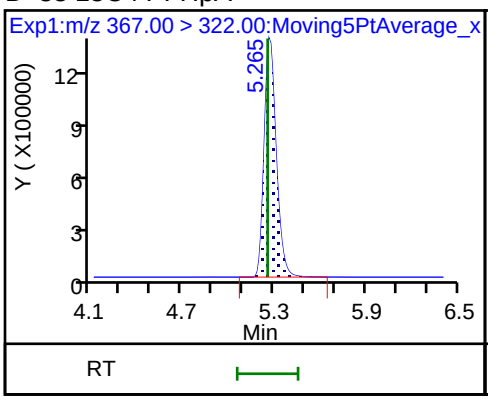
36 Perfluoroheptanoic acid



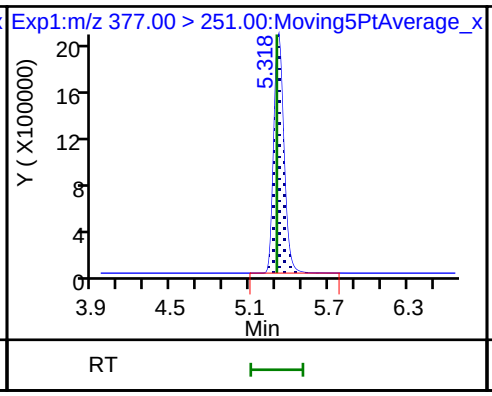
D 37 13C3 PFHxS



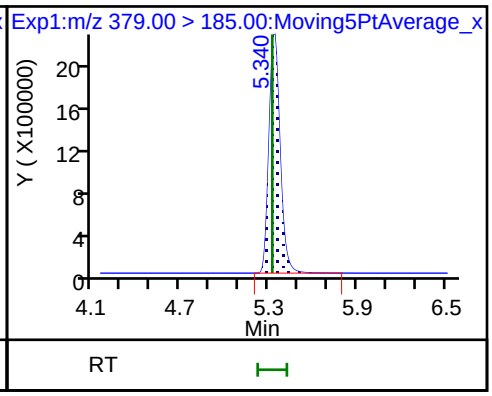
D 38 13C4 PFHpA



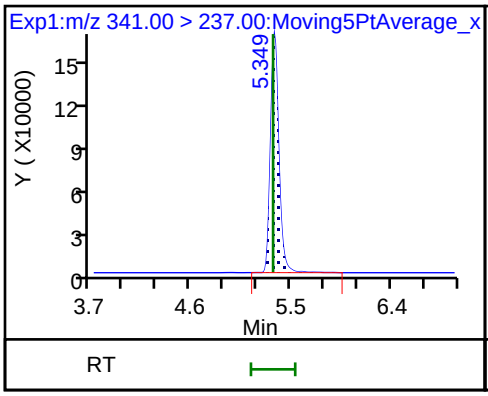
39 DONA



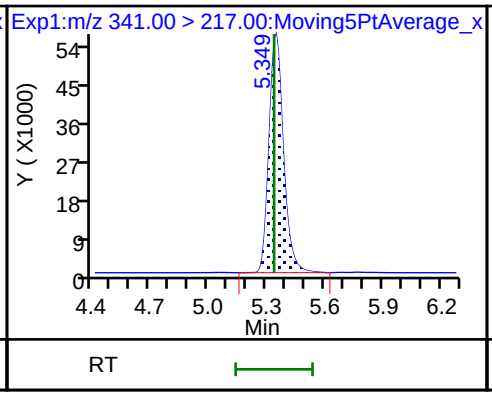
40 PFECA G



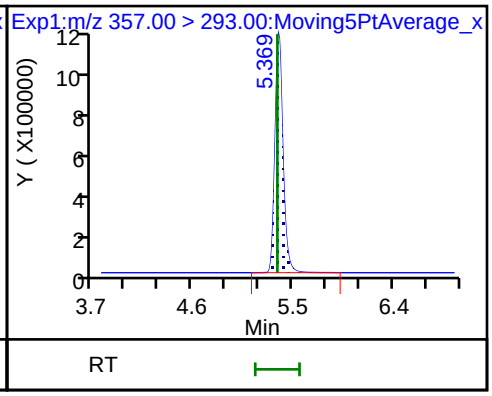
41 5:3 FTCA



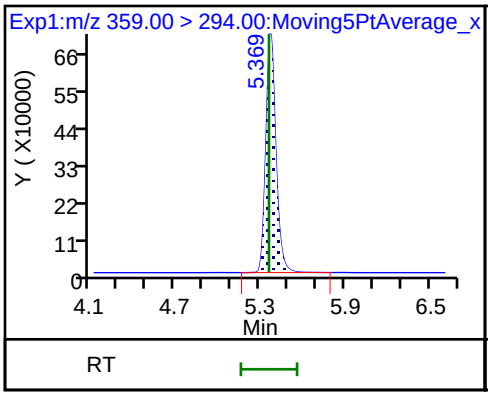
41 5:3 FTCA



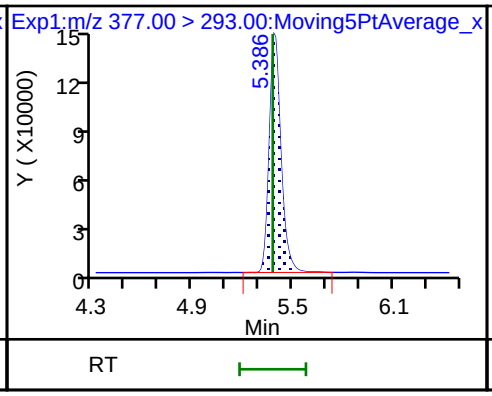
42 6:2 FTUCA



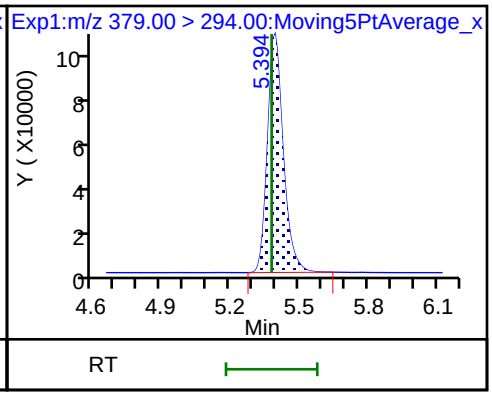
D 43 13C-6:2 FTUCA



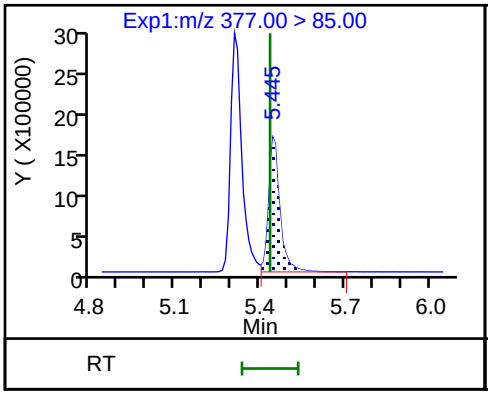
44 6:2 FTCA



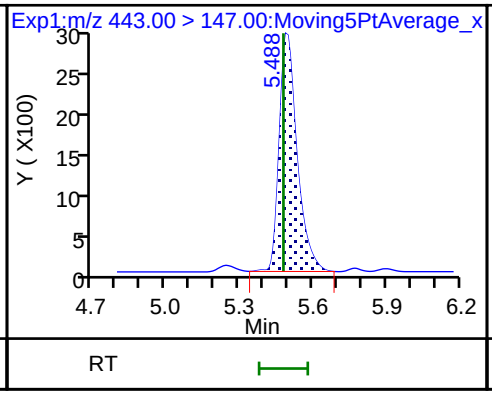
D 45 13C-6:2 FTCA



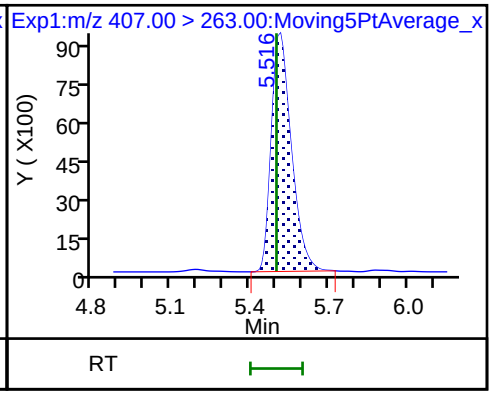
46 PFO4DA



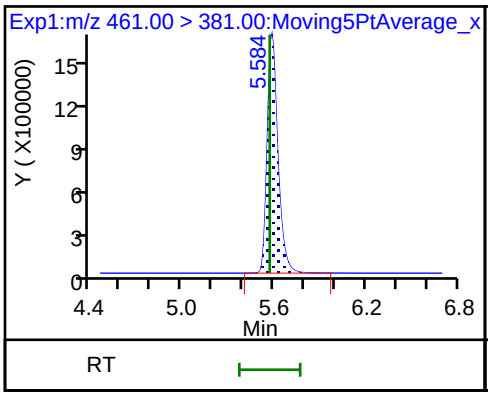
47 PS Acid



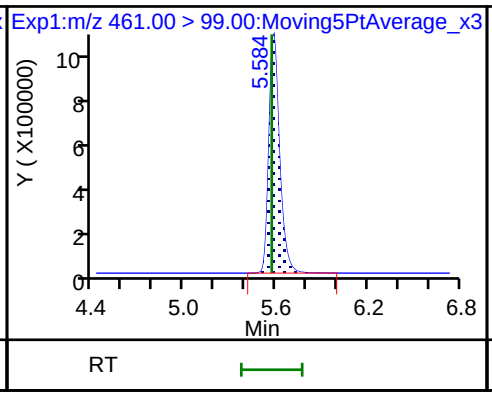
48 EVE Acid



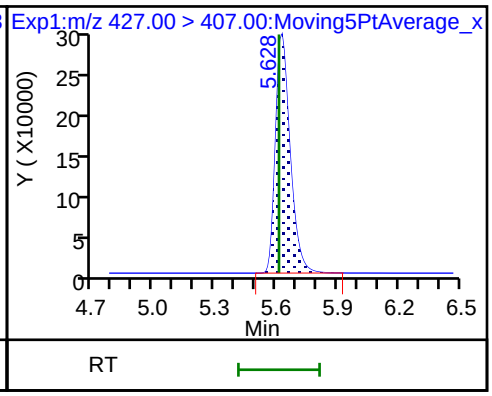
49 PFECHS



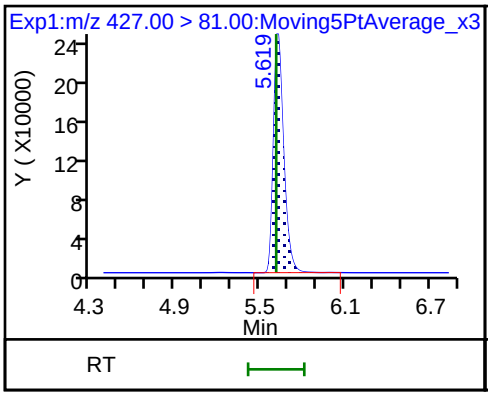
49 PFECHS



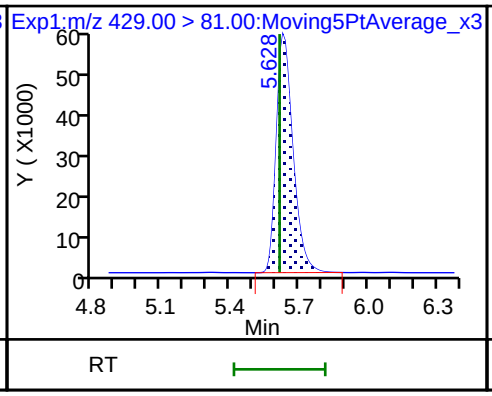
50 6:2 FTS



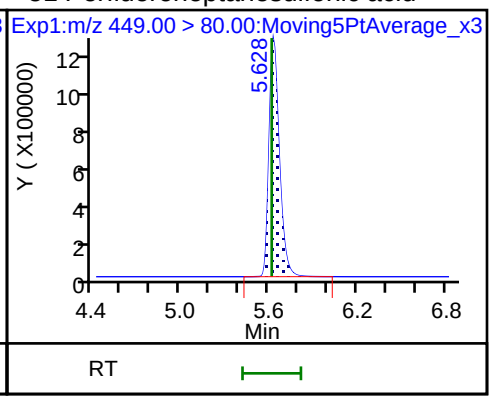
50 6:2 FTS



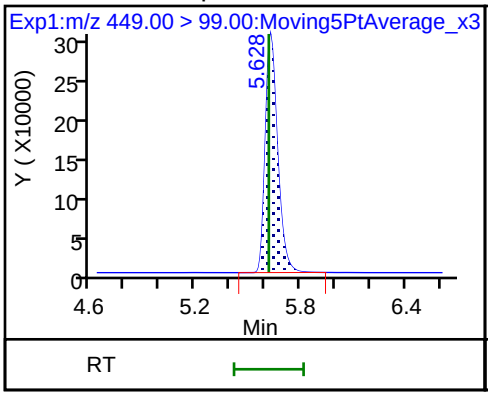
D 52 M2-6:2 FTS



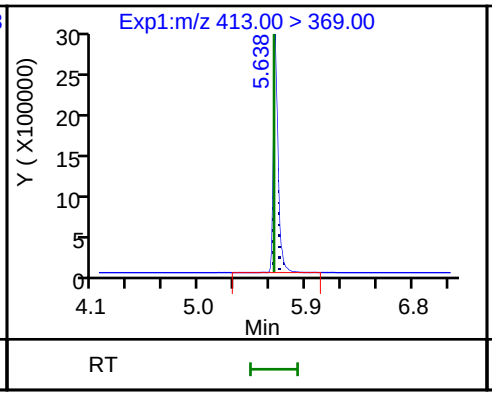
51 Perfluoroheptanesulfonic acid



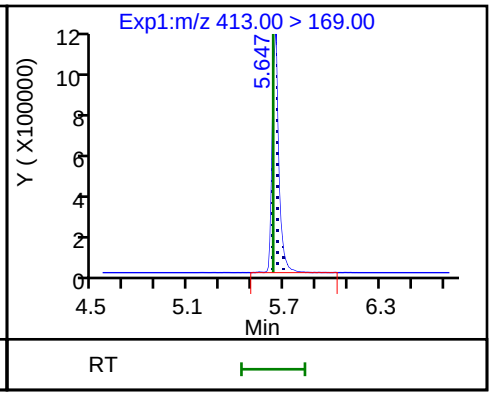
51 Perfluoroheptanesulfonic acid



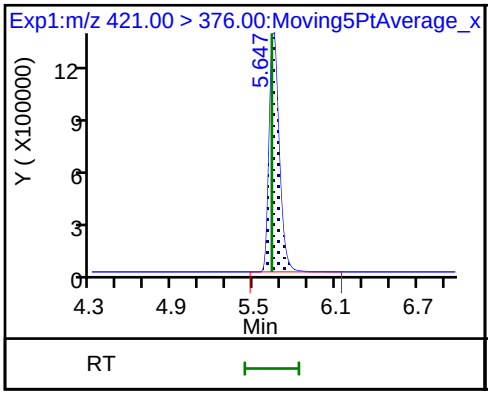
53 Perfluorooctanoic acid



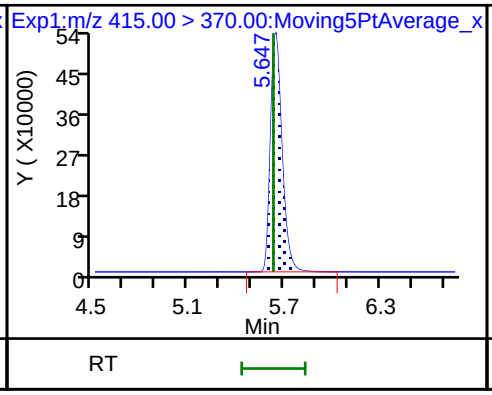
53 Perfluorooctanoic acid



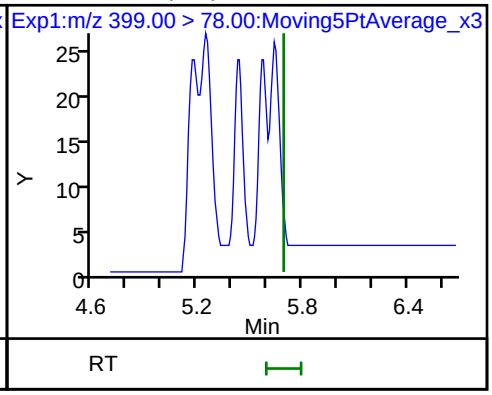
D 54 13C8 PFOA



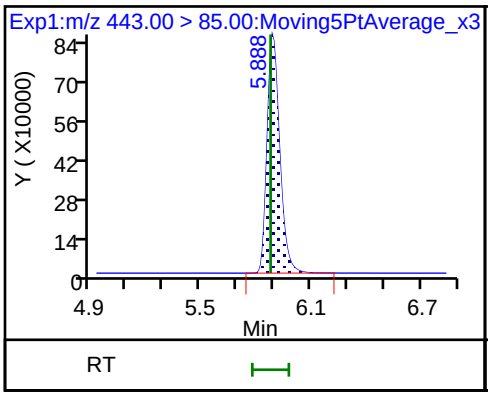
* 55 13C2 PFOA



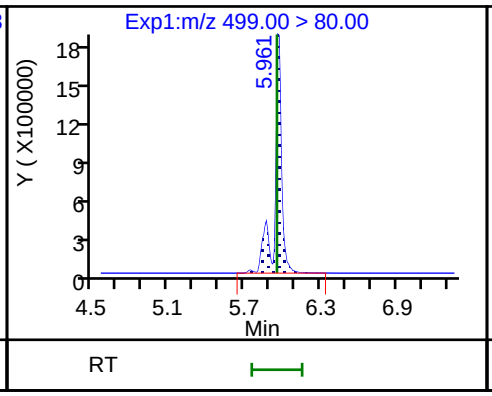
106 FHxSA (ND)



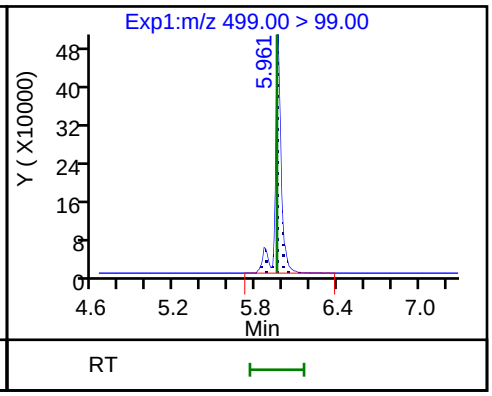
56 TAF



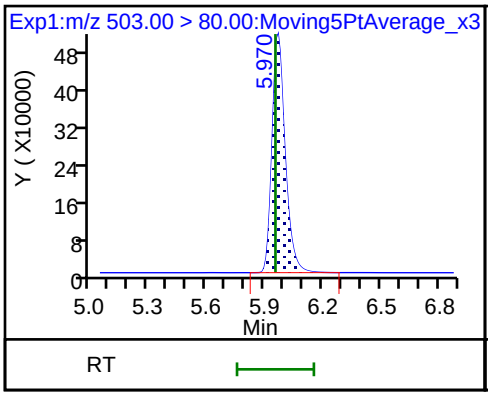
57 Perfluorooctanesulfonic acid



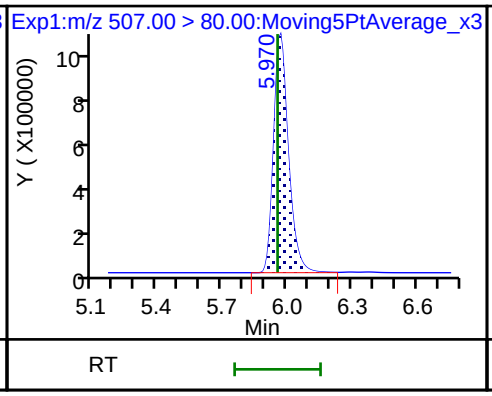
57 Perfluorooctanesulfonic acid



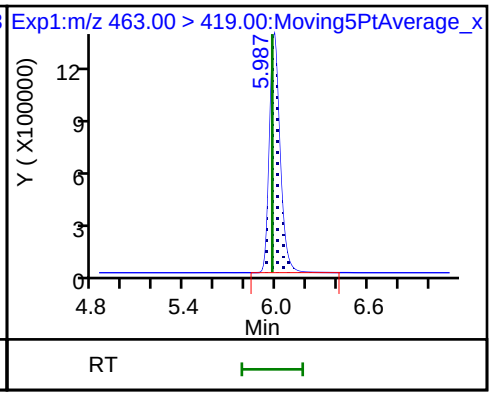
* 59 13C4 PFOS



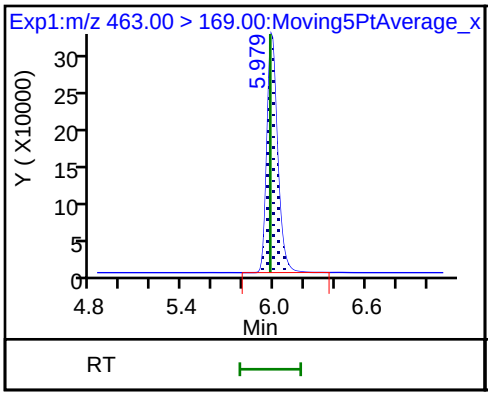
D 58 13C8 PFOS



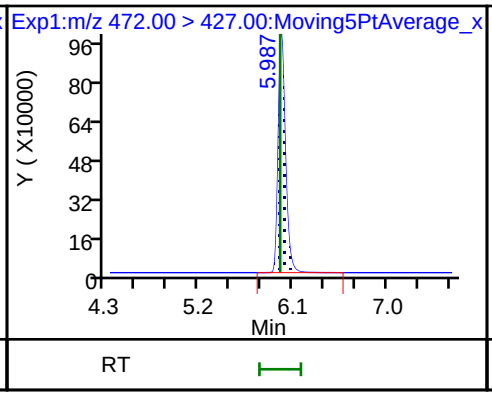
61 Perfluorononanoic acid



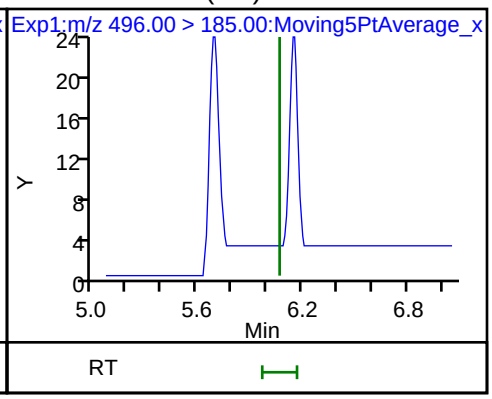
61 Perfluorononanoic acid



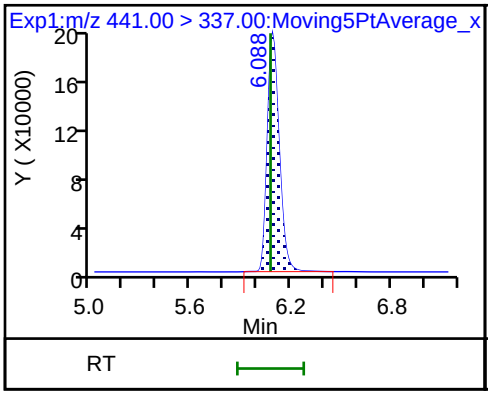
D 60 13C9 PFNA



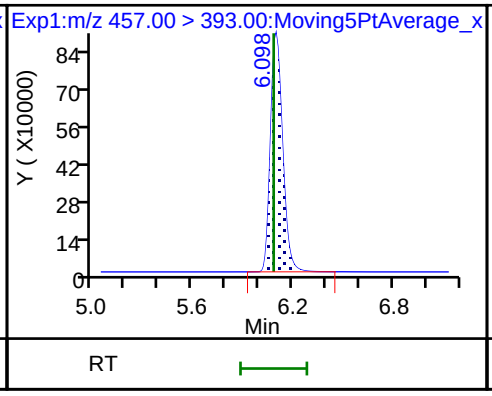
109 HFPO-TrA (ND)



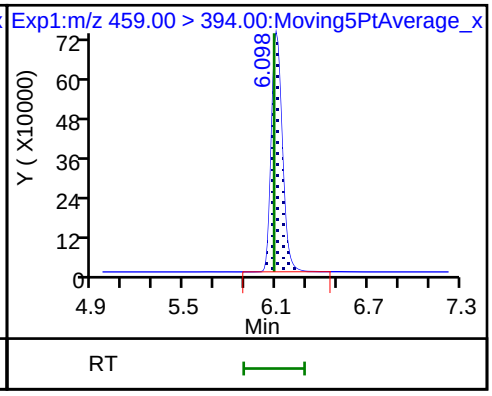
62 7:3 FTCA



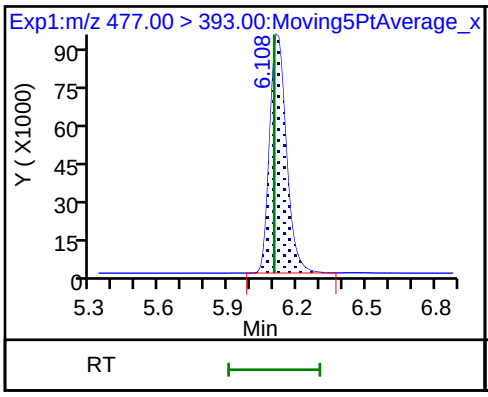
63 8:2 FTUCA



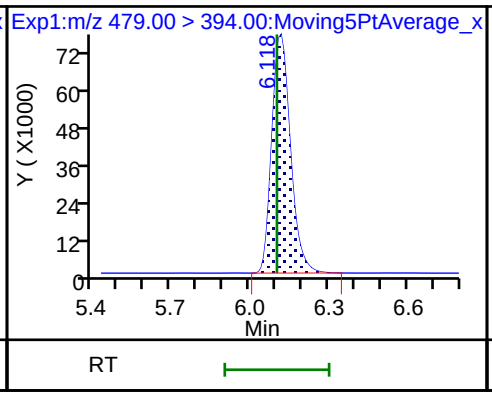
D 64 13C-8:2 FTUCA



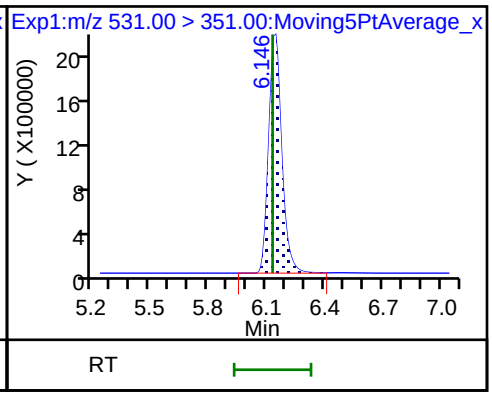
65 8:2 FTCA



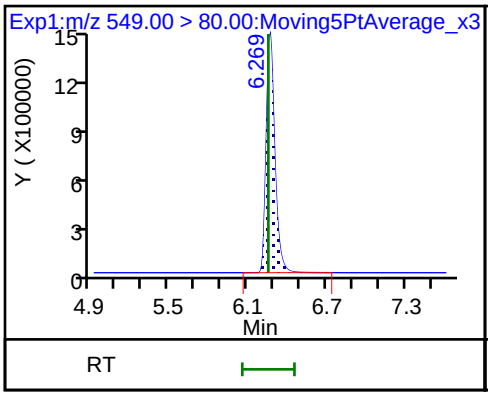
D 66 13C-8:2 FTCA



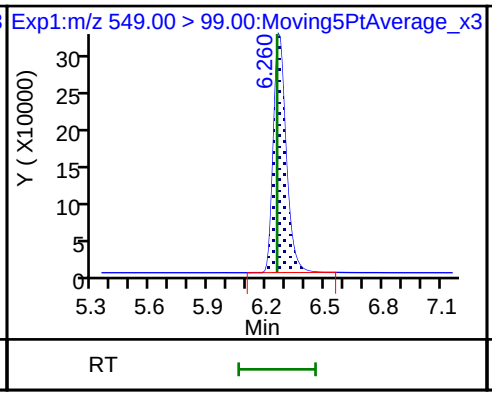
67 9ClFOS



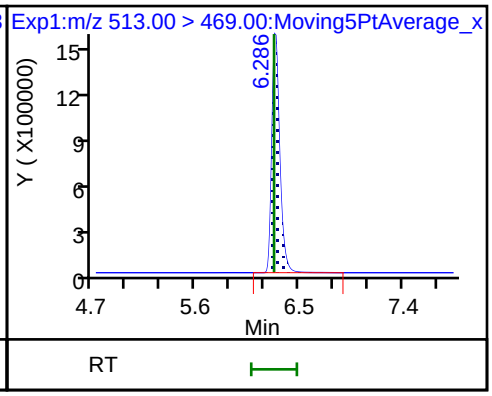
68 Perfluorononanesulfonic acid



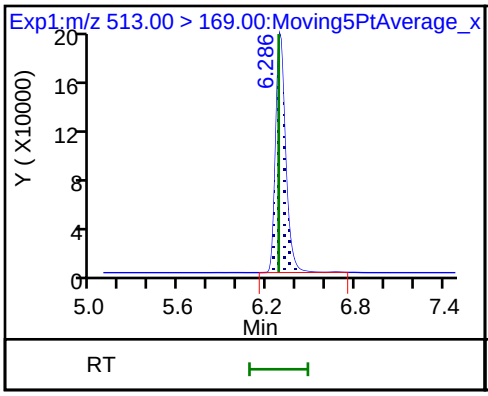
68 Perfluorononanesulfonic acid



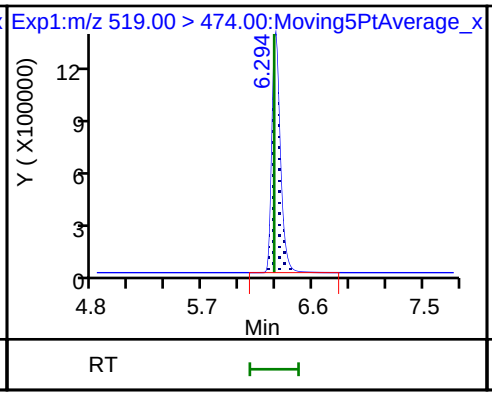
69 Perfluorodecanoic acid



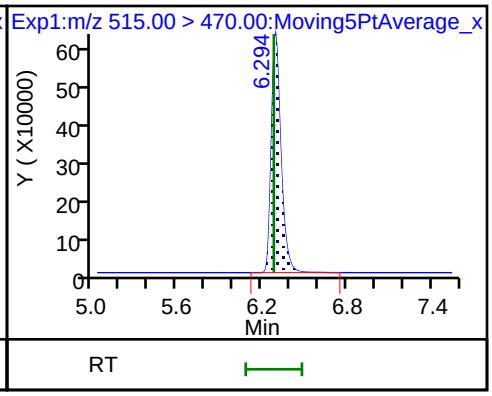
69 Perfluorodecanoic acid



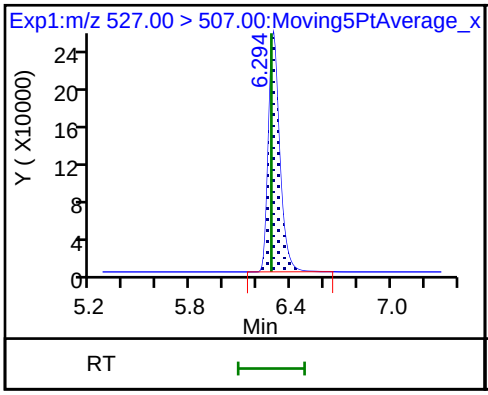
D 71 13C6 PFDA



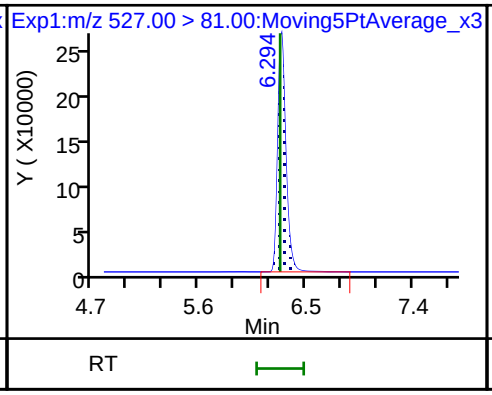
* 70 13C2 PFDA



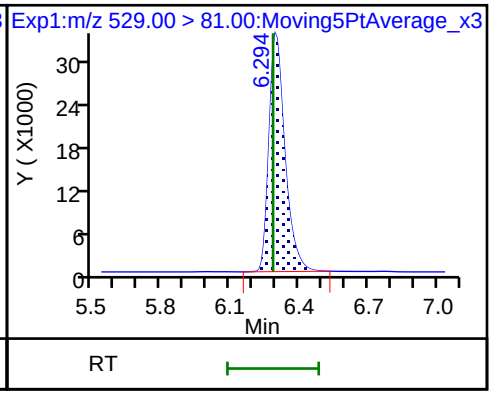
72 8:2 FTS



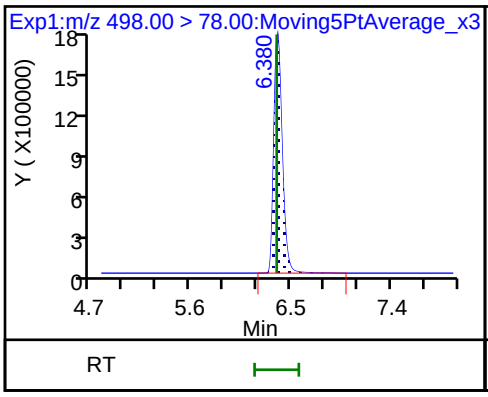
72 8:2 FTS



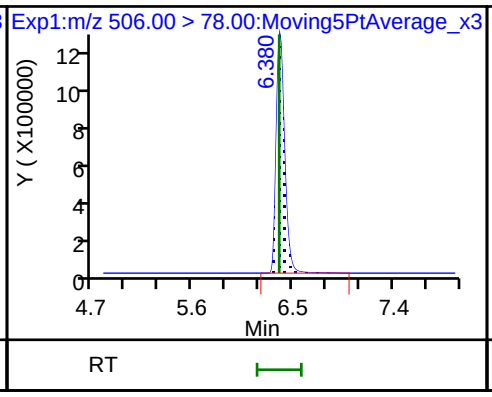
D 73 M2-8:2 FTS



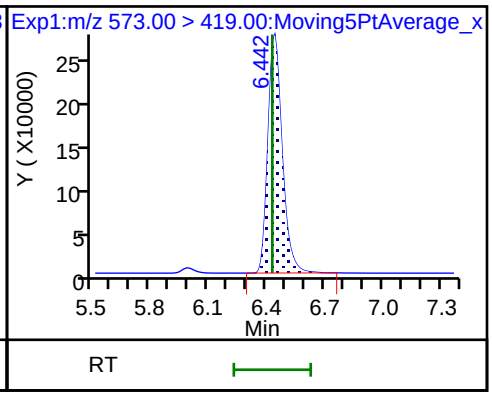
75 Perfluorooctanesulfonamide



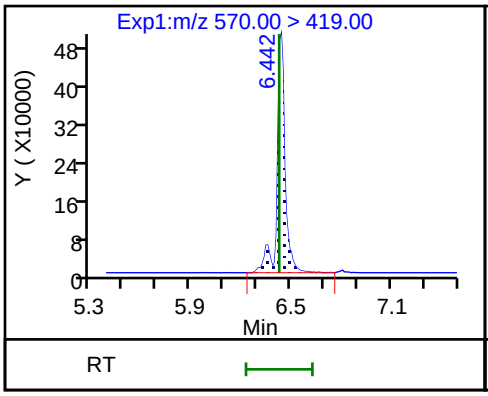
D 74 13C8 FOSA



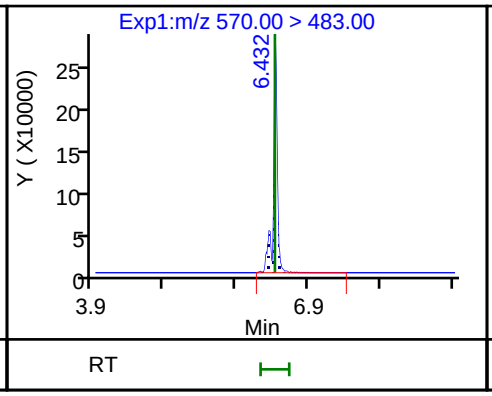
D 77 d3-NMeFOSAA



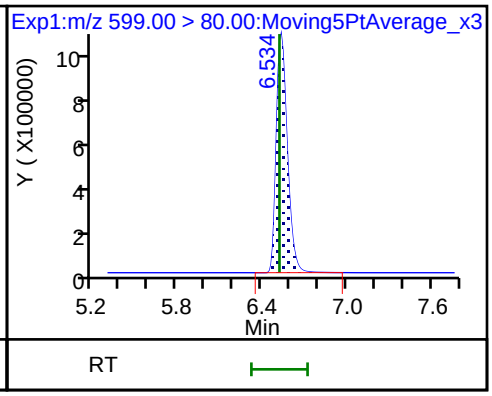
76 NMeFOSAA



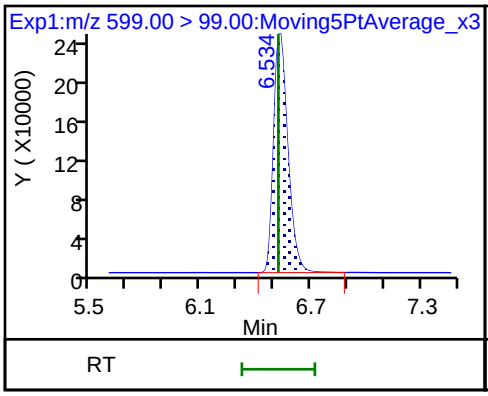
76 NMeFOSAA



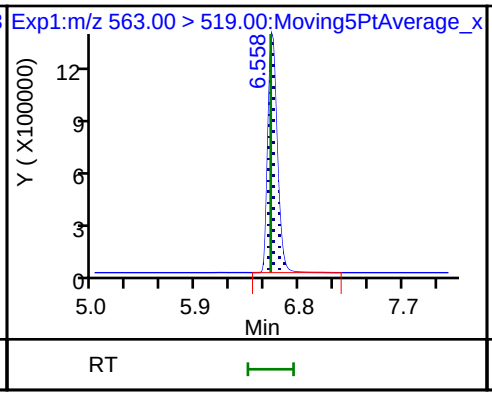
78 Perfluorodecanesulfonic acid



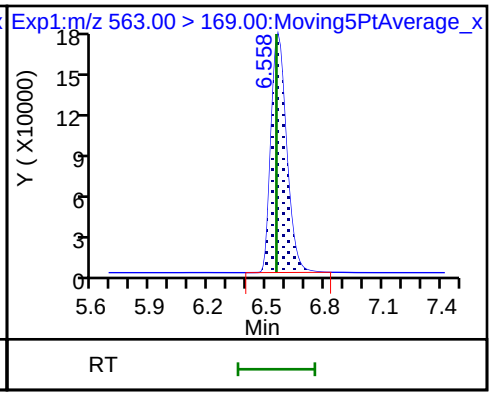
78 Perfluorodecanesulfonic acid



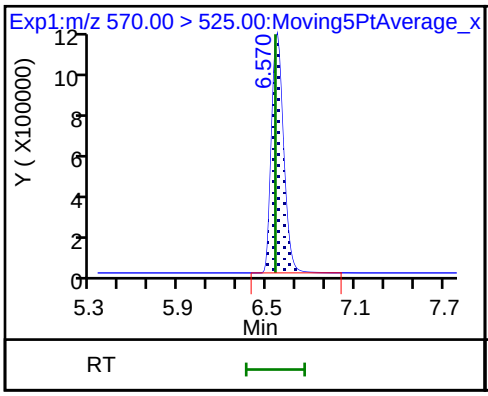
79 Perfluoroundecanoic acid



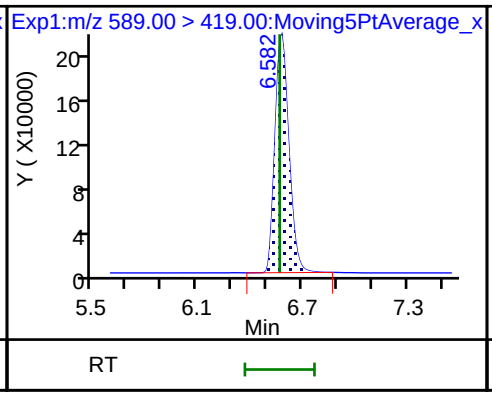
79 Perfluoroundecanoic acid



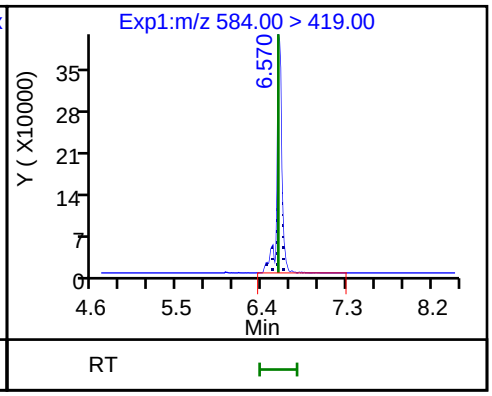
D 80 13C7 PFUnA



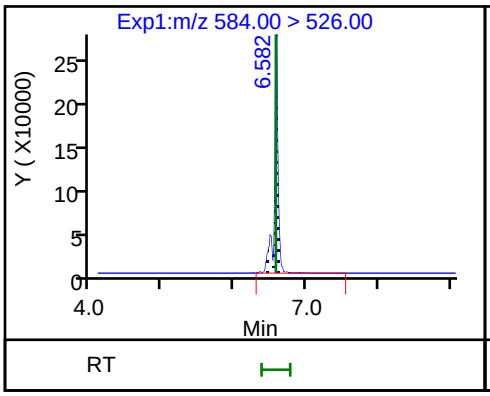
D 81 d5-NEtFOSAA



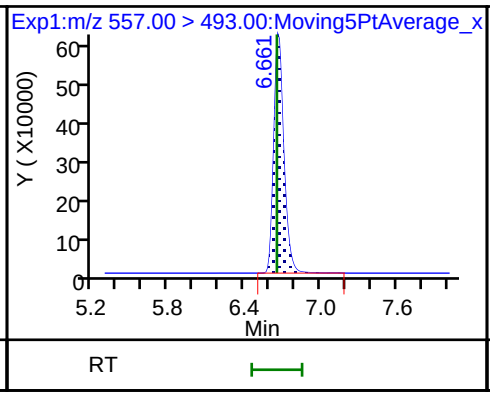
82 NEtFOSAA



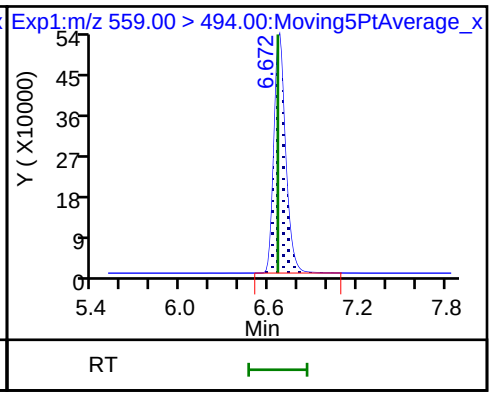
82 NEtFOSAA



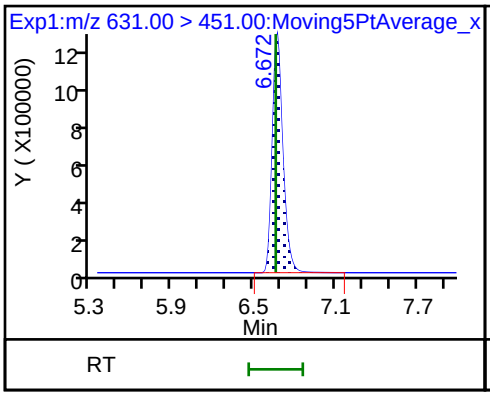
83 10:2 FTUCA



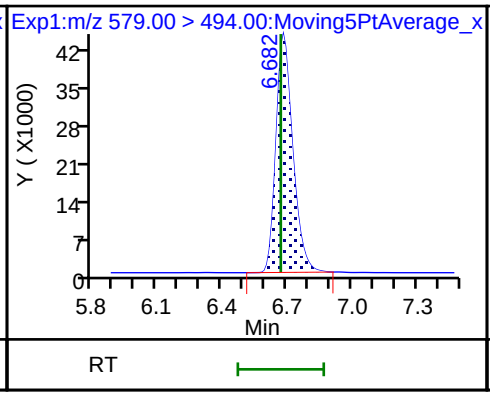
D 85 13C-10:2 FTUCA



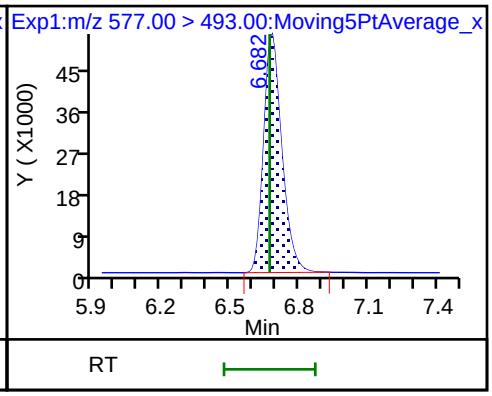
84 11ClFOS



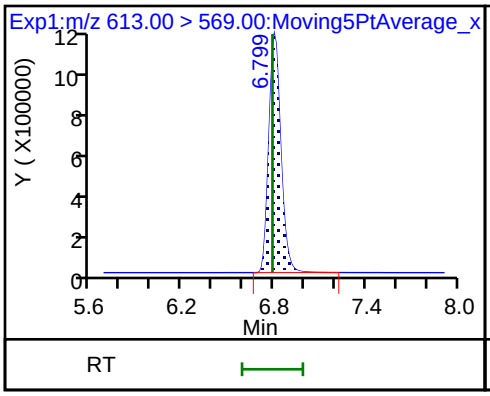
D 87 13C-10:2 FTCA



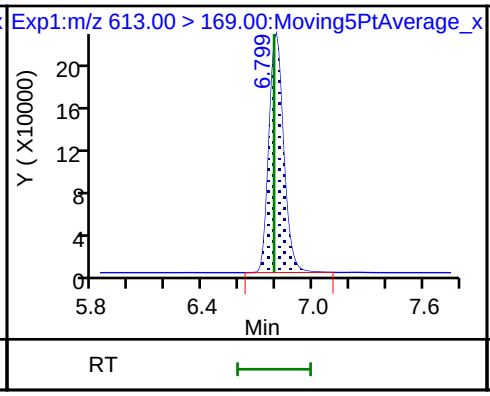
86 10:2 FTCA



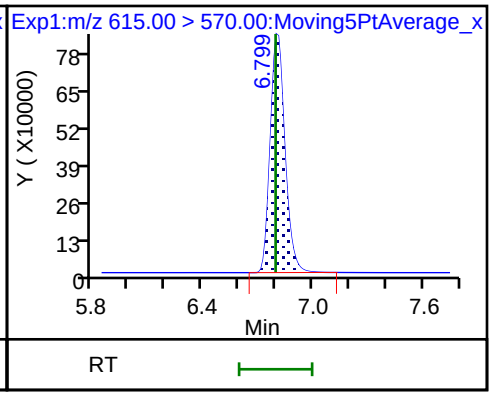
88 Perfluorododecanoic acid



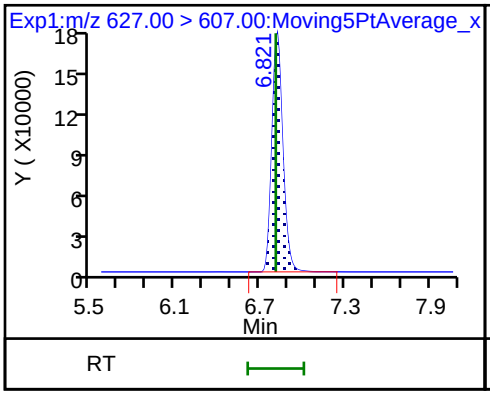
88 Perfluorododecanoic acid



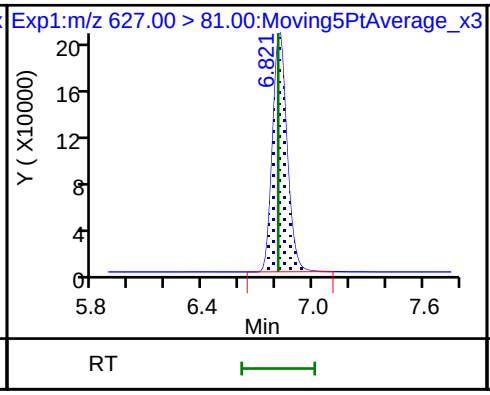
D 89 13C2-PFDoDA



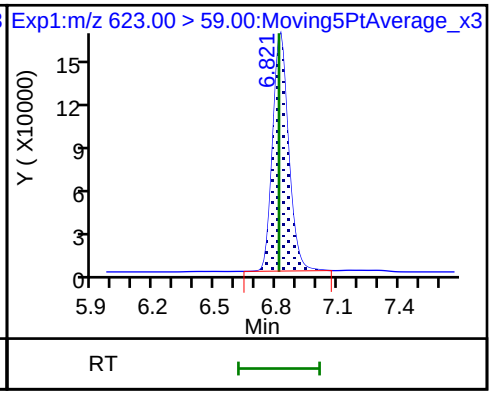
90 10:2 FTS



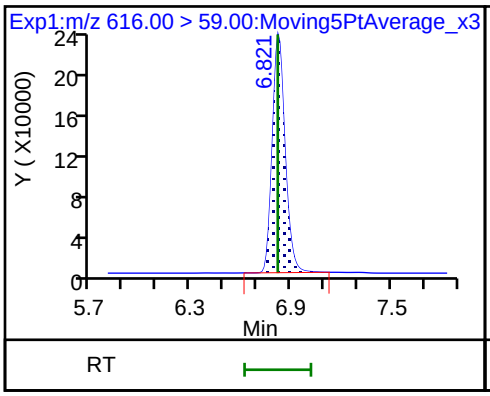
90 10:2 FTS



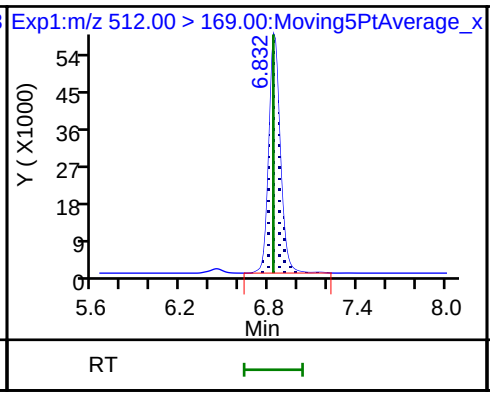
D 91 d7-N-MeFOSE-M



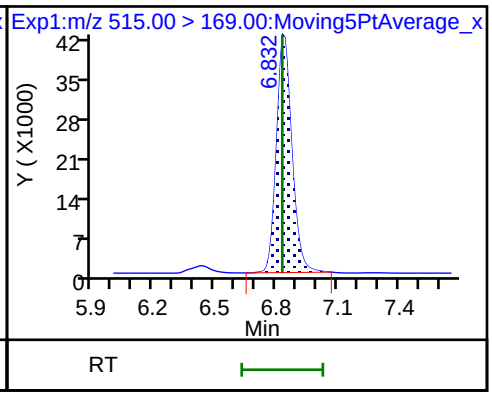
92 N-MeFOSE-M



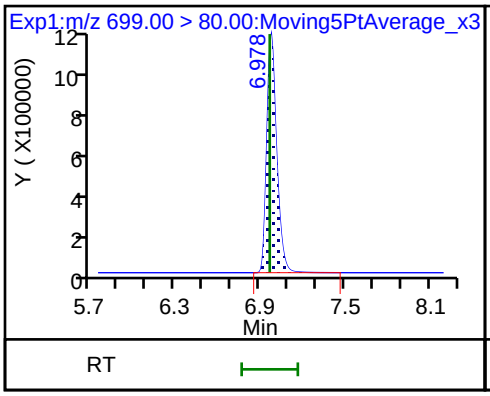
94 NMeFOSA



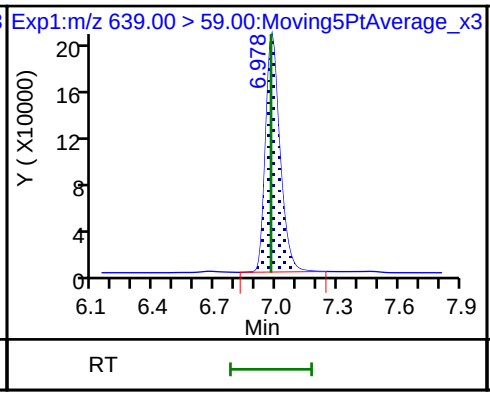
D 93 d3-NMePFOSA



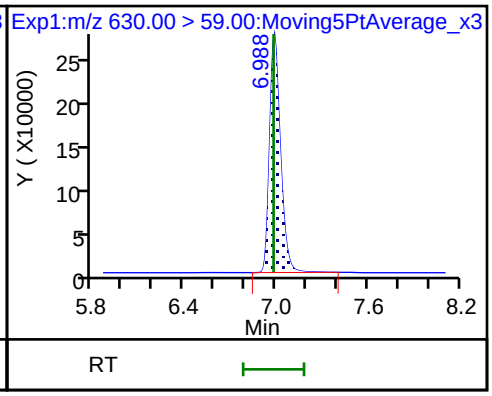
95 PFDoS



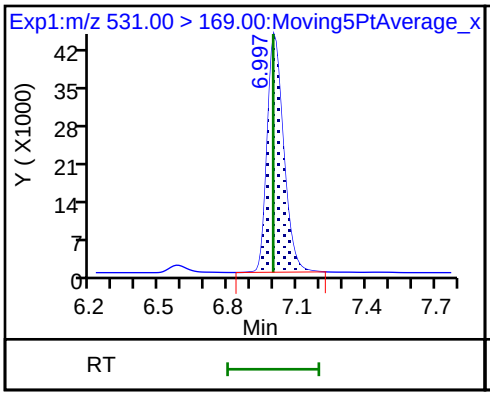
D 96 d9-N-EtFOSE-M



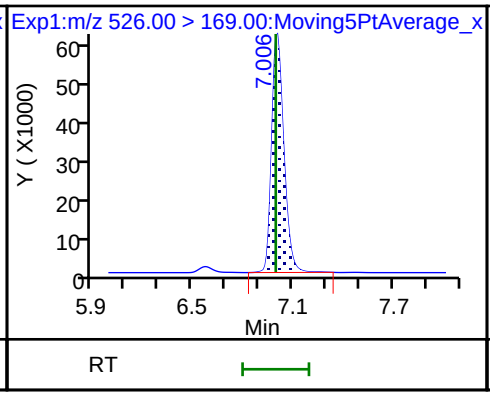
97 N-EtFOSE-M



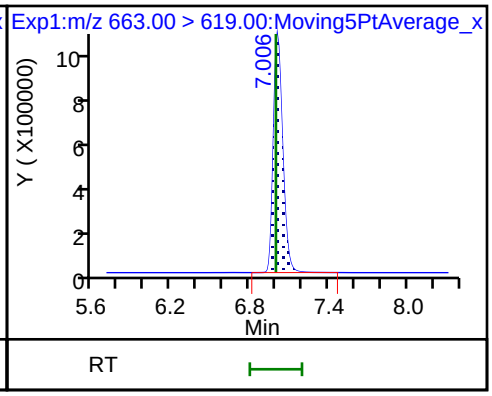
D 98 d5-NEtPFOSA



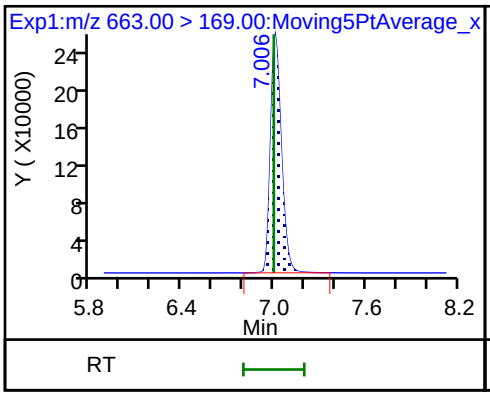
100 N-EtFOSA-M



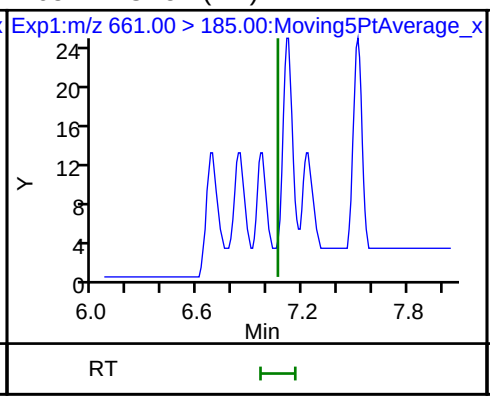
99 Perfluorotridecanoic acid



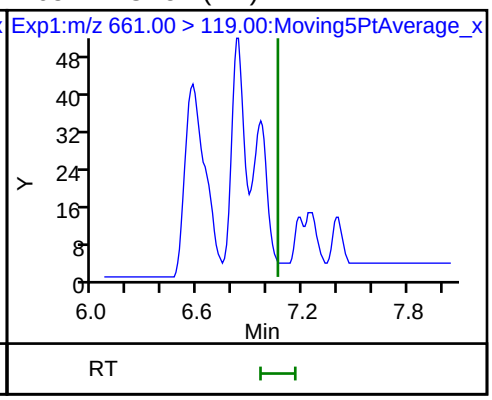
99 Perfluorotridecanoic acid



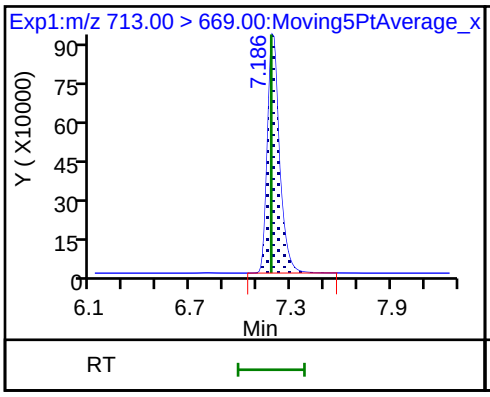
105 HFPOTeA (ND)



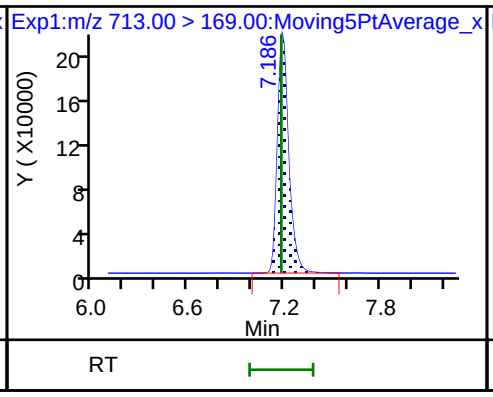
105 HFPOTeA (ND)



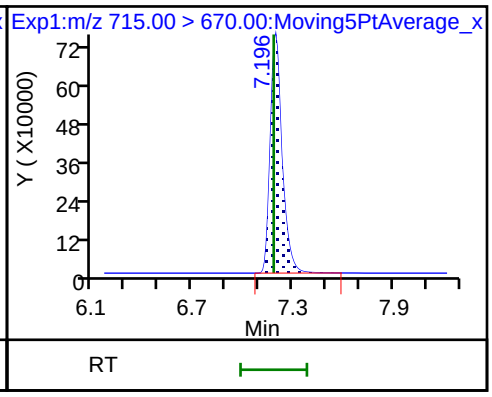
101 Perfluorotetradecanoic acid



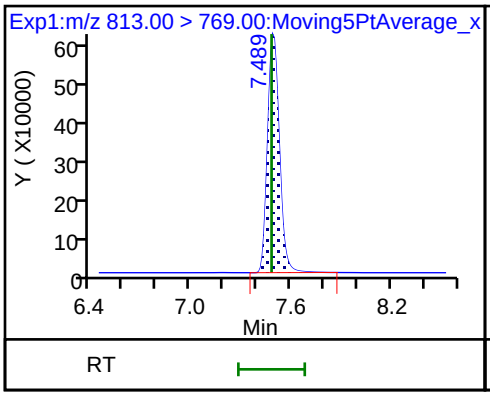
101 Perfluorotetradecanoic acid



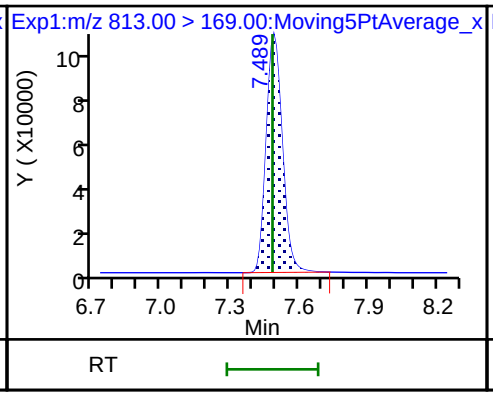
D 102 13C2 PFTeDA



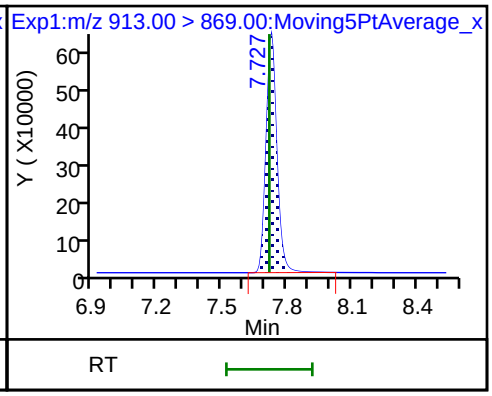
103 Perfluorohexadecanoic acid



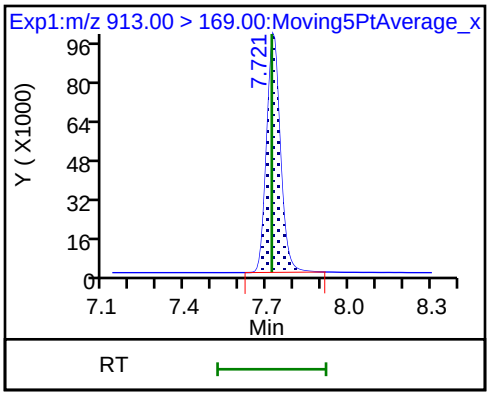
103 Perfluorohexadecanoic acid



104 Perfluorooctadecanoic acid



104 Perfluorooctadecanoic acid



PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Instrument ID: 30728 Start Date: 03/01/2022 21:15

Analysis Batch Number: 228775 End Date: 03/01/2022 22:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 410-228775/1		03/01/2022 21:15	1	22MAR01MCAL-01.d	Gemini C18 50mm 3(mm)
IC 410-228775/2		03/01/2022 21:26	1	22MAR01MCAL-02.d	Gemini C18 50mm 3(mm)
IC 410-228775/3		03/01/2022 21:37	1	22MAR01MCAL-03.d	Gemini C18 50mm 3(mm)
IC 410-228775/4		03/01/2022 21:48	1	22MAR01MCAL-04.d	Gemini C18 50mm 3(mm)
ICISAV 410-228775/5		03/01/2022 21:59	1	22MAR01MCAL-05.d	Gemini C18 50mm 3(mm)
IC 410-228775/6		03/01/2022 22:10	1	22MAR01MCAL-06.d	Gemini C18 50mm 3(mm)
IC 410-228775/7		03/01/2022 22:21	1	22MAR01MCAL-07.d	Gemini C18 50mm 3(mm)
ICB 410-228775/8		03/01/2022 22:32	1	22MAR01MCAL-08.d	Gemini C18 50mm 3(mm)
ICV 410-228775/9		03/01/2022 22:44	1	22MAR01MCAL-09.d	Gemini C18 50mm 3(mm)
WDM 410-228775/10		03/01/2022 22:55	1	22MAR01MCAL-10.d	Gemini C18 50mm 3(mm)

537 IDA

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Instrument ID: 30728 Start Date: 03/02/2022 10:15

Analysis Batch Number: 229099 End Date: 03/02/2022 11:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 410-229099/3		03/02/2022 10:15	1	22MAR02-11.d	Gemini C18 50mm 3(mm)
ZZZZZ		03/02/2022 10:26	100		Gemini C18 50mm 3(mm)
MB 410-228569/1-B		03/02/2022 10:38	1	22MAR02-13.d	Gemini C18 50mm 3(mm)
LCS 410-228569/2-B		03/02/2022 10:49	1	22MAR02-14.d	Gemini C18 50mm 3(mm)
410-73309-1	Import-1-20220216	03/02/2022 11:00	1	22MAR02-15.d	Gemini C18 50mm 3(mm)
410-73309-1 MS	Import-1-20220216 MS	03/02/2022 11:11	1	22MAR02-16.d	Gemini C18 50mm 3(mm)
410-73309-1 MSD	Import-1-20220216 MSD	03/02/2022 11:22	1	22MAR02-17.d	Gemini C18 50mm 3(mm)
410-73309-2	Import-2-20220216	03/02/2022 11:33	1	22MAR02-18.d	Gemini C18 50mm 3(mm)
410-73309-3	DUP-20220216	03/02/2022 11:44	1	22MAR02-19.d	Gemini C18 50mm 3(mm)
CCV 410-229099/12		03/02/2022 11:55	1	22MAR02-20.d	Gemini C18 50mm 3(mm)

537 IDA

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Instrument ID: 30733 Start Date: 02/22/2022 15:12

Analysis Batch Number: 226473 End Date: 02/22/2022 16:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 410-226473/1		02/22/2022 15:12	1	22FEB22MCAL-01.d	Gemini C18 50mm 3(mm)
IC 410-226473/2		02/22/2022 15:23	1	22FEB22MCAL-02.d	Gemini C18 50mm 3(mm)
IC 410-226473/3		02/22/2022 15:34	1	22FEB22MCAL-03.d	Gemini C18 50mm 3(mm)
IC 410-226473/4		02/22/2022 15:45	1	22FEB22MCAL-04.d	Gemini C18 50mm 3(mm)
ICISAV 410-226473/5		02/22/2022 15:56	1	22FEB22MCAL-05.d	Gemini C18 50mm 3(mm)
IC 410-226473/6		02/22/2022 16:07	1	22FEB22MCAL-06.d	Gemini C18 50mm 3(mm)
IC 410-226473/7		02/22/2022 16:18	1	22FEB22MCAL-07.d	Gemini C18 50mm 3(mm)
ICB 410-226473/8		02/22/2022 16:29	1	22FEB22MCAL-08.d	Gemini C18 50mm 3(mm)
ICV 410-226473/9		02/22/2022 16:40	1	22FEB22MCAL-09.d	Gemini C18 50mm 3(mm)
WDM 410-226473/10		02/22/2022 16:51	1	22FEB22MCAL-10.d	Gemini C18 50mm 3(mm)

537 IDA

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Instrument ID: 30733 Start Date: 02/22/2022 22:50

Analysis Batch Number: 226634 End Date: 02/23/2022 11:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 410-226634/1		02/22/2022 22:50	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/22/2022 23:01	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/22/2022 23:13	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/22/2022 23:24	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/22/2022 23:36	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/22/2022 23:47	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/22/2022 23:58	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 00:09	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 00:20	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 00:31	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 00:42	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 00:53	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 01:04	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 01:15	1		Gemini C18 50mm 3(mm)
CCV 410-226634/15		02/23/2022 01:26	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 01:38	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 01:49	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 02:00	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 02:11	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 02:22	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 02:33	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 02:44	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 02:55	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 03:06	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 03:17	1		Gemini C18 50mm 3(mm)
CCV 410-226634/26		02/23/2022 03:29	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 03:40	1		Gemini C18 50mm 3(mm)
CCV 410-226634/29		02/23/2022 03:51	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 04:02	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 04:13	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 04:24	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 04:35	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 04:46	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 04:57	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 05:09	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 05:20	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 05:31	1		Gemini C18 50mm 3(mm)
CCV 410-226634/40		02/23/2022 05:42	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 05:53	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 06:04	10		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 06:15	100		Gemini C18 50mm 3(mm)
CCV 410-226634/44		02/23/2022 06:26	1		Gemini C18 50mm 3(mm)
CCV 410-226634/56		02/23/2022 08:40	1	22FEB22-60.d	Gemini C18 50mm 3(mm)
MB 410-226178/1-A		02/23/2022 08:51	1	22FEB22-61.d	Gemini C18 50mm 3(mm)
LCS 410-226178/2-A		02/23/2022 09:02	1	22FEB22-62.d	Gemini C18 50mm 3(mm)

537 IDA

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73309-1

SDG No.:

Instrument ID: 30733 Start Date: 02/22/2022 22:50

Analysis Batch Number: 226634 End Date: 02/23/2022 11:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
LCSD 410-226178/3-A		02/23/2022 09:13	1	22FEB22-63.d	Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 09:24	1		Gemini C18 50mm 3(mm)
410-73309-4	FB-20220216	02/23/2022 09:35	1	22FEB22-65.d	Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 09:46	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 09:57	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 10:10	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 10:21	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 10:32	1		Gemini C18 50mm 3(mm)
ZZZZZ		02/23/2022 10:43	1		Gemini C18 50mm 3(mm)
CCV 410-226634/69		02/23/2022 11:05	1	22FEB22-73.d	Gemini C18 50mm 3(mm)

537 IDA

PFAS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-73309-1

SDG No.:

Batch Number: 226178 Batch Start Date: 02/22/22 07:11 Batch Analyst: Catchings, Donovan

Batch Method: 537 IDA Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	PFC_MS_MODWX 00123	PFC_SS_MODX 00210
MB 410-226178/1		537 IDA, 537 IDA		300 g	50 g	250 mL	1 mL		25 uL
LCS 410-226178/2		537 IDA, 537 IDA		300 g	50 g	250 mL	1 mL	40 uL	25 uL
LCSD 410-226178/3		537 IDA, 537 IDA		300 g	50 g	250 mL	1 mL	40 uL	25 uL
410-73309-A-4	FB-20220216	537 IDA, 537 IDA	T	280.82 g	27.75 g	253.1 mL	1 mL		25 uL

Batch Notes	
Manifold ID	7
SPE Cartridge Type	Wax
SPE Cartridge Lot ID	6582140-02
Balance ID	B629764122
Pipette/Syringe/Dispenser ID	PFAS 6, PFAS 7
Methanol ID	EC203-US
H2O ID	House A372
Solvent Name	.3% NH4OH in MeOH, 1:1 ACN:MeOH
Solvent Lot #	3090602222233A; 1269802222233A
Analyst ID - IS Reagent Drop	TB 30906
Analyst ID - IS Reagent Drop Witness	CF 12698
Collection Tube Witness	CF 12698
Centrifuge Tube ID	518525
QC Bottle Lot ID	0222101G

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PFAS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-73309-1

SDG No.:

Batch Number: 228569 Batch Start Date: 03/01/22 07:26 Batch Analyst: Prince, Austin P

Batch Method: SHAKE Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	PFC_MS_MODSX 00149	PFC_SS_MODX 00216		
MB 410-228569/1		SHAKE, Extract Aliquot, 537 IDA		10.00 g	20 mL		50 uL		
LCS 410-228569/2		SHAKE, Extract Aliquot, 537 IDA		10.00 g	20 mL	40 uL	50 uL		
410-73309-A-1	Import-1-20220216	SHAKE, Extract Aliquot, 537 IDA	T	10.04 g	20 mL		50 uL		
410-73309-A-1 MS	Import-1-20220216	SHAKE, Extract Aliquot, 537 IDA	T	10.03 g	20 mL	40 uL	50 uL		
410-73309-A-1 MSD	Import-1-20220216	SHAKE, Extract Aliquot, 537 IDA	T	10.04 g	20 mL	40 uL	50 uL		
410-73309-A-2	Import-2-20220216	SHAKE, Extract Aliquot, 537 IDA	T	10.09 g	20 mL		50 uL		
410-73309-A-3	DUP-20220216	SHAKE, Extract Aliquot, 537 IDA	T	10.04 g	20 mL		50 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PFAS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-73309-1

SDG No.:

Batch Number: 228569 Batch Start Date: 03/01/22 07:26 Batch Analyst: Prince, Austin P

Batch Method: SHAKE Batch End Date:

Batch Notes	
Balance ID	C25996498
Blank Sand Lot #	21B255202
SPE Cartridge Lot ID	6582140-02
Methanol ID	EC203-US
Manifold ID	11, 12
Pipette/Syringe/Dispenser ID	P10-8, P5-1, PFAS 4, 5
Analyst ID - IS Reagent Drop	EBG20094
Sonication Start Time	02/23/2022 10:10
Sonication Stop Time	02/23/2022 11:10
Centrifuge Tube ID	34620066, 518584
Batch Comment	Sonicator 3800 A, 0.3% NH4OH:MeOH: 3090622242233A, 1:1 ACN:MeOH: 4072602222233B

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PFAS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-73309-1

SDG No.:

Batch Number: 228574 Batch Start Date: 03/01/22 07:39 Batch Analyst: Prince, Austin P

Batch Method: Extract Aliquot Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 410-228569/1-A		Extract Aliquot, 537 IDA		10 mL	1 mL				
LCS 410-228569/2-A		Extract Aliquot, 537 IDA		10 mL	1 mL				
410-73309-A-1-G	Import-1-20220216	Extract Aliquot, 537 IDA	T	10 mL	1 mL				
410-73309-A-1-H MS	Import-1-20220216	Extract Aliquot, 537 IDA	T	10 mL	1 mL				
410-73309-A-1-I MSD	Import-1-20220216	Extract Aliquot, 537 IDA	T	10 mL	1 mL				
410-73309-A-2-C	Import-2-20220216	Extract Aliquot, 537 IDA	T	10 mL	1 mL				
410-73309-A-3-C	DUP-20220216	Extract Aliquot, 537 IDA	T	10 mL	1 mL				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-73309-1

SDG No.:

Project: Troy PL E20

Client Sample ID	Lab Sample ID
Import-1-20220216	410-73309-1
Import-2-20220216	410-73309-2
DUP-20220216	410-73309-3

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-73309-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture MDL Date: 10/16/2018 12:54

Analyte	Wavelength/ Mass	RL (%)	MDL (%)
Percent Moisture		1	0.1
Percent Solids		1	0.1

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-73309-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XMDL Date: 10/16/2018 09:12

Analyte	Wavelength/ Mass	XRL (%)	XMDL (%)
Percent Moisture		1	0.1
Percent Solids		1	0.1

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73309-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 02/18/2022 12:50 End Date: 02/18/2022 12:50

Lab Sample ID	D/F	Type	Time	Analytes																			
				% Sol	Moist																		
ZZZZZZ			12:50																				
ZZZZZZ			12:50																				
ZZZZZZ			12:50																				
ZZZZZZ			12:50																				
ZZZZZZ			12:50																				
410-73309-1	1	T	12:50	X	X																		
410-73309-3	1	T	12:50	X	X																		
410-73309-2	1	T	12:50	X	X																		
ZZZZZZ			12:50																				
ZZZZZZ			12:50																				
ZZZZZZ			12:50																				
ZZZZZZ			12:50																				
ZZZZZZ			12:50																				
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ZZZZZZ			12:50																				
ZZZZZZ			12:50																				
ZZZZZZ			12:50																				

Prep Types
T = Total/NA

General Chemistry Raw Data Report

Job ID: 410-73309-1

Batch: 225441 **Analyst Initials: UGCW**

Method: Moisture **Instrument: NONE**

Lab Sample ID: 410-73309-B-1 **Analysis Date: Feb 18, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	3.4567901234568	%
Percent Solids	None	1	96.5432098765432	%

Lab Sample ID: 410-73309-B-3 **Analysis Date: Feb 18, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	3.4261241970021	%
Percent Solids	None	1	96.5738758029979	%

Lab Sample ID: 410-73309-B-2 **Analysis Date: Feb 18, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	3.3898305084746	%
Percent Solids	None	1	96.6101694915254	%

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-73309-1

SDG No.:

Batch Number: 225441 Batch Start Date: 02/18/22 12:50 Batch Analyst: Wettig, Chad C

Batch Method: Moisture Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid
410-73309-B-1	Import-1-20220216	Moisture	T	441-6	1.17 g	5.22 g	5.08 g	3.4567901234568 %	96.5432098765432 %
410-73309-B-3	DUP-20220216	Moisture	T	441-7	1.13 g	5.80 g	5.64 g	3.4261241970021 %	96.5738758029979 %
410-73309-B-2	Import-2-20220216	Moisture	T	441-8	1.14 g	5.86 g	5.70 g	3.3898305084746 %	96.6101694915254 %

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
410-73309-B-1	Import-1-20220216	Moisture	T	soil sandy roots					
410-73309-B-3	DUP-20220216	Moisture	T	soil sandy roots					
410-73309-B-2	Import-2-20220216	Moisture	T	soil sandy roots					

Batch Notes	
Balance ID	B4442
Oven ID	8948
Thermometer ID	1262
Date samples were placed in the oven	02/18/2022
Time samples were place in the oven	13:15
Oven Temp In	105 Degrees C
Date samples were removed from oven	02/19/2022
Time Samples were removed from oven	05:56
Oven Temp Out	105 Degrees C
Batch Comment	Cal Due: 2/4/23

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Phone (717) 656-2300

Chain of Custody Record

410-73309 Chain of Custody

eurofins

Client Information	Sampler: Brian Taylor	Lab PM: Weyandt, Barbara A	C No: 0-50020-13964 1
Client Contact: Mr ~~Steve Dentico~~ Brian Taylor	Phone: 845-501-4229	E-Mail: Barbara.Weyandt@eurofinset.com	Page: Page 1 of 1
Company: Brown and Caldwell	PWSID:		Job #:
Address: 500 N Franklin Turnpike Suite 306	Due Date Requested:		
City: Ramsey	TAT Requested (days):		
State, Zip: NJ, 07446	Compliance Project: Δ Yes Δ No		
Phone: ~~201.574.4713(Tel)~~ 518-560-5907	PO #: 152167 ~~205~~		
Email: ~~sdentice@brwncald.com~~ bftaylor@brunc-bl.com	WO #:		
Project Name: ~~Troy NY Water PFAS~~ TROY PCE 20	Project #: 41003608		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture - Moisture	PFC_IDA - NY 21 PFAS	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
Import-1-20220216	2/16/22	1220	C	S			X	X		MS/MSD
Import-2-20220216	2/16/22	1230	C	S			X	X		
DUP-20220216	2/16/22	9999	C	S			X	X	2	
FB-20220216	2/16/22	1235	G	W				X	2	

2/16/22

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Imtant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) NYS CAT B BC EQUIS

Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Edwin Hernandez	2/11/22 1340				
	2/16/22 1700	BC			
→ FEDEX				2/17/22 1139	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 2.2

Ver. 01/16/2019

03/03/2022

Login Sample Receipt Checklist

Client: Brown and Caldwell

Job Number: 410-73309-1

Login Number: 73309
List Number: 1
Creator: Jeremiah, Cory T

List Source: Eurofins Lancaster Laboratories Env, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Job Number: 410-73279-1

Job Description: Troy PL E20

For:
Brown and Caldwell
500 North Franklin Turnpike
Suite 306
Ramsey, NJ 07446

Attention: Mr. James L Marolda

Barb Weyandt

Approved for release.
Barbara A Weyandt
Project Manager
3/1/2022 10:41 AM

Barbara A Weyandt, Project Manager
2425 New Holland Pike, Lancaster, PA, 17601
(717)556-7264
Barbara.Weyandt@eurofinset.com
03/01/2022

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

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

Job Number: 410-73279-1

Job Description: Troy PL E20

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Job Narrative
410-73279-1

Receipt
The samples were received on 2/17/2022 11:31 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.5º C.

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

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

Sample Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73279-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-73279-1	IMPORT-1-20220216	Solid	02/16/22 12:20	02/17/22 11:31
410-73279-2	IMPORT-2-20220216	Solid	02/16/22 12:30	02/17/22 11:31
410-73279-3	DUP-20220216	Solid	02/16/22 00:00	02/17/22 11:31
410-73279-4	FB-20220216	Water	02/16/22 12:35	02/17/22 11:31

Eurofins Lancaster Laboratories, LLC
03/01/2022

Detection Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73279-1

Client Sample ID: IMPORT-1-20220216 — Lab Sample ID: 410-73279-1

No Detections.

Client Sample ID: IMPORT-2-20220216 — Lab Sample ID: 410-73279-2

No Detections.

Client Sample ID: DUP-20220216 — Lab Sample ID: 410-73279-3

No Detections.

Client Sample ID: FB-20220216 — Lab Sample ID: 410-73279-4

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73279-1

Method	Method Description	Protocol	Laboratory
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73279-1

Client Sample ID: IMPORT-1-20220216 — Lab Sample ID: 410-73279-1

Date Collected: 02/16/22 12:20 — **Matrix: Solid**
Date Received: 02/17/22 11:31

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.8		1.0	1.0	%			02/18/22 09:33	1
Percent Solids	97.2		1.0	1.0	%			02/18/22 09:33	1

Client Sample ID: IMPORT-1-20220216 — Lab Sample ID: 410-73279-1

Date Collected: 02/16/22 12:20 — **Matrix: Solid**
Date Received: 02/17/22 11:31 — **Percent Solids: 97.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND	*+ F1	3.1	1.4	ug/Kg	☼	02/20/22 19:08	02/22/22 10:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*98*		*36 - 119*	*02/20/22 19:08*	*02/22/22 10:54*	*1*
1-Methylnaphthalene-d10 (Surr)	*92*		*37 - 110*	*02/20/22 19:08*	*02/22/22 10:54*	*1*
Fluoranthene-d10 (Surr)	*100*		*41 - 135*	*02/20/22 19:08*	*02/22/22 10:54*	*1*

Client Sample ID: IMPORT-2-20220216 — Lab Sample ID: 410-73279-2

Date Collected: 02/16/22 12:30 — **Matrix: Solid**
Date Received: 02/17/22 11:31

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.8		1.0	1.0	%			02/18/22 09:33	1
Percent Solids	97.2		1.0	1.0	%			02/18/22 09:33	1

Client Sample ID: IMPORT-2-20220216 — Lab Sample ID: 410-73279-2

Date Collected: 02/16/22 12:30 — **Matrix: Solid**
Date Received: 02/17/22 11:31 — **Percent Solids: 97.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND	*+	3.1	1.4	ug/Kg	☼	02/20/22 19:08	02/22/22 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*103*		*36 - 119*	*02/20/22 19:08*	*02/22/22 12:26*	*1*
1-Methylnaphthalene-d10 (Surr)	*96*		*37 - 110*	*02/20/22 19:08*	*02/22/22 12:26*	*1*
Fluoranthene-d10 (Surr)	*104*		*41 - 135*	*02/20/22 19:08*	*02/22/22 12:26*	*1*

Client Sample ID: DUP-20220216 — Lab Sample ID: 410-73279-3

Date Collected: 02/16/22 00:00 — **Matrix: Solid**
Date Received: 02/17/22 11:31

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.0		1.0	1.0	%			02/18/22 09:33	1
Percent Solids	97.0		1.0	1.0	%			02/18/22 09:33	1

Client Sample ID: DUP-20220216

Lab Sample ID: 410-73279-3

Date Collected: 02/16/22 00:00
Date Received: 02/17/22 11:31

Matrix: Solid
Percent Solids: 97.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND	*+	3.1	1.4	ug/Kg	☼	02/20/22 19:08	02/22/22 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*99*		*36 - 119*	*02/20/22 19:08*	*02/22/22 12:57*	*1*
1-Methylnaphthalene-d10 (Surr)	*93*		*37 - 110*	*02/20/22 19:08*	*02/22/22 12:57*	*1*
Fluoranthene-d10 (Surr)	*101*		*41 - 135*	*02/20/22 19:08*	*02/22/22 12:57*	*1*

Client Sample ID: FB-20220216

Lab Sample ID: 410-73279-4

Date Collected: 02/16/22 12:35
Date Received: 02/17/22 11:31

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.33	0.11	ug/L		02/22/22 16:35	02/24/22 23:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*57*		*10 - 110*	*02/22/22 16:35*	*02/24/22 23:08*	*1*
1-Methylnaphthalene-d10 (Surr)	*82*		*36 - 111*	*02/22/22 16:35*	*02/24/22 23:08*	*1*
Fluoranthene-d10 (Surr)	*100*		*47 - 128*	*02/22/22 16:35*	*02/24/22 23:08*	*1*

Surrogate Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73279-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BAPd12	MNPd10	FLN10
Lab Sample ID	Client Sample ID	(36-119)	(37-110)	(41-135)
410-73279-1	IMPORT-1-20220216	98	92	100
410-73279-1 MS	IMPORT-1-20220216	100	80	100
410-73279-1 MSD	IMPORT-1-20220216	102	83	102
410-73279-2	IMPORT-2-20220216	103	96	104
410-73279-3	DUP-20220216	99	93	101
LCS 410-225699/2-A	Lab Control Sample	99	83	97
MB 410-225699/1-A	Method Blank	100	94	98

Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10 (Surr)
FLN10 = Fluoranthene-d10 (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BAPd12	MNPd10	FLN10
Lab Sample ID	Client Sample ID	(10-110)	(36-111)	(47-128)
410-73279-4	FB-20220216	57	82	100
LCS 410-226489/2-A	Lab Control Sample	94	75	104
MB 410-226489/1-A	Method Blank	93	86	100

Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)
MNPd10 = 1-Methylnaphthalene-d10 (Surr)
FLN10 = Fluoranthene-d10 (Surr)

QC Sample Results

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73279-1

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

Lab Sample ID: MB 410-225699/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226084 — **Prep Batch: 225699**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		3.0	1.3	ug/Kg		02/20/22 19:08	02/21/22 20:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*100*		*36 - 119*	*02/20/22 19:08*	*02/21/22 20:00*	*1*
1-Methylnaphthalene-d10 (Surr)	*94*		*37 - 110*	*02/20/22 19:08*	*02/21/22 20:00*	*1*
Fluoranthene-d10 (Surr)	*98*		*41 - 135*	*02/20/22 19:08*	*02/21/22 20:00*	*1*

Lab Sample ID: LCS 410-225699/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226084 — **Prep Batch: 225699**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	33.3	21.7	*+	ug/Kg		65	28 - 52

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Benzo(a)pyrene-d12 (Surr)	*99*		*36 - 119*
1-Methylnaphthalene-d10 (Surr)	*83*		*37 - 110*
Fluoranthene-d10 (Surr)	*97*		*41 - 135*

Lab Sample ID: 410-73279-1 MS — **Client Sample ID: IMPORT-1-20220216**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226145 — **Prep Batch: 225699**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	ND	*+ F1	34.1	18.9	F1	ug/Kg	☼	55	28 - 52

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Benzo(a)pyrene-d12 (Surr)	*100*		*36 - 119*
1-Methylnaphthalene-d10 (Surr)	*80*		*37 - 110*
Fluoranthene-d10 (Surr)	*100*		*41 - 135*

Lab Sample ID: 410-73279-1 MSD — **Client Sample ID: IMPORT-1-20220216**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226145 — **Prep Batch: 225699**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	ND	*+ F1	34.0	20.6	F1	ug/Kg	☼	61	28 - 52	9	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Benzo(a)pyrene-d12 (Surr)	*102*		*36 - 119*
1-Methylnaphthalene-d10 (Surr)	*83*		*37 - 110*
Fluoranthene-d10 (Surr)	*102*		*41 - 135*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 410-226489/1-A
Matrix: Water
Analysis Batch: 227542

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 226489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.119	J	0.30	0.10	ug/L		02/22/22 16:35	02/24/22 22:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*93*		*10 - 110*	*02/22/22 16:35*	*02/24/22 22:01*	*1*
1-Methylnaphthalene-d10 (Surr)	*86*		*36 - 111*	*02/22/22 16:35*	*02/24/22 22:01*	*1*
Fluoranthene-d10 (Surr)	*100*		*47 - 128*	*02/22/22 16:35*	*02/24/22 22:01*	*1*

Lab Sample ID: LCS 410-226489/2-A
Matrix: Water
Analysis Batch: 227542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 226489

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			1.00	0.729		ug/L		73	23 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Benzo(a)pyrene-d12 (Surr)	*94*		*10 - 110*
1-Methylnaphthalene-d10 (Surr)	*75*		*36 - 111*
Fluoranthene-d10 (Surr)	*104*		*47 - 128*

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73279-1

GC/MS Semi VOA

Prep Batch: 225699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73279-1	IMPORT-1-20220216	Total/NA	Solid	3546	
410-73279-2	IMPORT-2-20220216	Total/NA	Solid	3546	
410-73279-3	DUP-20220216	Total/NA	Solid	3546	
MB 410-225699/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-225699/2-A	Lab Control Sample	Total/NA	Solid	3546	
410-73279-1 MS	IMPORT-1-20220216	Total/NA	Solid	3546	
410-73279-1 MSD	IMPORT-1-20220216	Total/NA	Solid	3546	

Analysis Batch: 226084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-225699/1-A	Method Blank	Total/NA	Solid	8270D SIM	225699
LCS 410-225699/2-A	Lab Control Sample	Total/NA	Solid	8270D SIM	225699

Analysis Batch: 226145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73279-1	IMPORT-1-20220216	Total/NA	Solid	8270D SIM	225699
410-73279-2	IMPORT-2-20220216	Total/NA	Solid	8270D SIM	225699
410-73279-3	DUP-20220216	Total/NA	Solid	8270D SIM	225699
410-73279-1 MS	IMPORT-1-20220216	Total/NA	Solid	8270D SIM	225699
410-73279-1 MSD	IMPORT-1-20220216	Total/NA	Solid	8270D SIM	225699

Prep Batch: 226489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73279-4	FB-20220216	Total/NA	Water	3510C	
MB 410-226489/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-226489/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 227542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73279-4	FB-20220216	Total/NA	Water	8270D SIM	226489
MB 410-226489/1-A	Method Blank	Total/NA	Water	8270D SIM	226489
LCS 410-226489/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	226489

General Chemistry

Analysis Batch: 225368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73279-1	IMPORT-1-20220216	Total/NA	Solid	Moisture	
410-73279-2	IMPORT-2-20220216	Total/NA	Solid	Moisture	
410-73279-3	DUP-20220216	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73279-1

Client Sample ID: IMPORT-1-20220216
Lab Sample ID: 410-73279-1
Date Collected: 02/16/22 12:20
Matrix: Solid
Date Received: 02/17/22 11:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225368	02/18/22 09:33	UGCW	ELLE

Client Sample ID: IMPORT-1-20220216
Lab Sample ID: 410-73279-1
Date Collected: 02/16/22 12:20
Matrix: Solid
Date Received: 02/17/22 11:31
Percent Solids: 97.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			225699	02/20/22 19:08	D7SW	ELLE
Total/NA	Analysis	8270D SIM		1	226145	02/22/22 10:54	UJM0	ELLE

Client Sample ID: IMPORT-2-20220216
Lab Sample ID: 410-73279-2
Date Collected: 02/16/22 12:30
Matrix: Solid
Date Received: 02/17/22 11:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225368	02/18/22 09:33	UGCW	ELLE

Client Sample ID: IMPORT-2-20220216
Lab Sample ID: 410-73279-2
Date Collected: 02/16/22 12:30
Matrix: Solid
Date Received: 02/17/22 11:31
Percent Solids: 97.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			225699	02/20/22 19:08	D7SW	ELLE
Total/NA	Analysis	8270D SIM		1	226145	02/22/22 12:26	UJM0	ELLE

Client Sample ID: DUP-20220216
Lab Sample ID: 410-73279-3
Date Collected: 02/16/22 00:00
Matrix: Solid
Date Received: 02/17/22 11:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225368	02/18/22 09:33	UGCW	ELLE

Client Sample ID: DUP-20220216
Lab Sample ID: 410-73279-3
Date Collected: 02/16/22 00:00
Matrix: Solid
Date Received: 02/17/22 11:31
Percent Solids: 97.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			225699	02/20/22 19:08	D7SW	ELLE
Total/NA	Analysis	8270D SIM		1	226145	02/22/22 12:57	UJM0	ELLE

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73279-1

Client Sample ID: FB-20220216

Date Collected: 02/16/22 12:35
Date Received: 02/17/22 11:31

Lab Sample ID: 410-73279-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			226489	02/22/22 16:35	MD4W	ELLE
Total/NA	Analysis	8270D SIM		1	227542	02/24/22 23:08	UWHS	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Brown and Caldwell
Project/Site: Troy PL E20

Job ID: 410-73279-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10670	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
8270D SIM	3510C	Water	1,4-Dioxane
8270D SIM	3546	Solid	1,4-Dioxane
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method 8270D SIM

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

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73279-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): Rxi-.5SilMS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	MNPd10 #	FLN10 #	BAPd12 #
IMPORT-1-20220216	410-73279-1	92	100	98
IMPORT-2-20220216	410-73279-2	96	104	103
DUP-20220216	410-73279-3	93	101	99
	MB 410-225699/1-A	94	98	100
	LCS 410-225699/2-A	83	97	99
IMPORT-1-20220216 MS	410-73279-1 MS	80	100	100
IMPORT-1-20220216 MSD	410-73279-1 MSD	83	102	102

	QC LIMITS
MNPd10 = 1-Methylnaphthalene-d10 (Surr)	37-110
FLN10 = Fluoranthene-d10 (Surr)	41-135
BAPd12 = Benzo(a)pyrene-d12 (Surr)	36-119

Column to be used to flag recovery values

FORM II 8270D SIM

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73279-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-5MS 30m ID: 0.25(mm)

Client Sample ID	Lab Sample ID	MNPd10 #	FLN10 #	BAPd12 #
FB-20220216	410-73279-4	82	100	57
	MB 410-226489/1-A	86	100	93
	LCS 410-226489/2-A	75	104	94

	QC LIMITS
MNPd10 = 1-Methylnaphthalene-d10 (Surr)	36-111
FLN10 = Fluoranthene-d10 (Surr)	47-128
BAPd12 = Benzo(a)pyrene-d12 (Surr)	10-110

Column to be used to flag recovery values

FORM II 8270D SIM

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-73279-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: IB0803.D

Lab ID: LCS 410-225699/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	33.3	21.7	65	28-52	*+

Column to be used to flag recovery and RPD values

FORM III 8270D SIM

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-73279-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NB0423.D

Lab ID: LCS 410-226489/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	1.00	0.729	73	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-73279-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: IB0878.D

Lab ID: 410-73279-1 MS Client ID: IMPORT-1-20220216 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	34.1	ND	18.9	55	28-52	F1

Column to be used to flag recovery and RPD values

FORM III 8270D SIM

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-73279-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: IB0879.D

Lab ID: 410-73279-1 MSD Client ID: IMPORT-1-20220216 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,4-Dioxane	34.0	20.6	61	9	30	28-52	F1

Column to be used to flag recovery and RPD values

FORM III 8270D SIM

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-73279-1

SDG No.:

Lab File ID: IB0802.D Lab Sample ID: MB 410-225699/1-A

Matrix: Solid Date Extracted: 02/20/2022 19:08

Instrument ID: HP10976 Date Analyzed: 02/21/2022 20:00

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-225699/2-A	IB0803.D	02/21/2022 20:31
IMPORT-1-20220216	410-73279-1	IB0877.D	02/22/2022 10:54
IMPORT-1-20220216 MS	410-73279-1 MS	IB0878.D	02/22/2022 11:25
IMPORT-1-20220216 MSD	410-73279-1 MSD	IB0879.D	02/22/2022 11:55
IMPORT-2-20220216	410-73279-2	IB0880.D	02/22/2022 12:26
DUP-20220216	410-73279-3	IB0881.D	02/22/2022 12:57

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env, LLC
Job No.: 410-73279-1

SDG No.:

Lab File ID: NB0422.D
Lab Sample ID: MB 410-226489/1-A

Matrix: Water
Date Extracted: 02/22/2022 16:35

Instrument ID: HP23263
Date Analyzed: 02/24/2022 22:01

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-226489/2-A	NB0423.D	02/24/2022 22:24
FB-20220216	410-73279-4	NB0425.D	02/24/2022 23:08

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Lab File ID: IB0700.D DFTPP Injection Date: 02/21/2022

Instrument ID: HP10976 DFTPP Injection Time: 05:14

Analysis Batch No.: 225714

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	32.6
68	Less than 2% of mass 69	0.6 (1.6) 1
69	Mass 69 Relative abundance	36.2
70	Less than 2% of mass 69	0.1 (0.2) 1
127	10-80% of Base Peak	33.1
197	Less than 2% of mass 198	0.5
198	Base peak	100.0
199	5-9% of mass 198	6.5
275	10-60% of Base Peak	25.2
365	Greater than 1% of mass 198	3.1
441	present but less than 24% of mass 442	13.9 (14.7) 2
442	Greater than 50% of mass 198	94.6
443	15-24% of mass 442	18.1 (19.2) 2

1-Value is % mass 69 2-Value is % mass 442

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 410-225714/2	IB0701.D	02/21/2022	5:36
	IC 410-225714/3	IB0702.D	02/21/2022	6:08
	IC 410-225714/4	IB0703.D	02/21/2022	6:39
	IC 410-225714/5	IB0704.D	02/21/2022	7:15
	IC 410-225714/6	IB0705.D	02/21/2022	7:46
	IC 410-225714/7	IB0706.D	02/21/2022	8:17
	IC 410-225714/8	IB0707.D	02/21/2022	8:48
	ICV 410-225714/11	IB0710.D	02/21/2022	10:20

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Lab File ID: IB0800a.D DFTPP Injection Date: 02/21/2022

Instrument ID: HP10976 DFTPP Injection Time: 18:55

Analysis Batch No.: 226084

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	34.1
68	Less than 2% of mass 69	0.3 (0.7) 1
69	Mass 69 Relative abundance	39.3
70	Less than 2% of mass 69	0.3 (0.8) 1
127	10-80% of Base Peak	35.6
197	Less than 2% of mass 198	0.2
198	Base peak	100.0
199	5-9% of mass 198	8.3
275	10-60% of Base Peak	27.8
365	Greater than 1% of mass 198	3.9
441	present but less than 24% of mass 442	15.1 (17.1) 2
442	Greater than 50% of mass 198	88.5
443	15-24% of mass 442	20.3 (23.0) 2

1-Value is % mass 69 2-Value is % mass 442

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-226084/2	IB0801.D	02/21/2022	19:12
	MB 410-225699/1-A	IB0802.D	02/21/2022	20:00
	LCS 410-225699/2-A	IB0803.D	02/21/2022	20:31

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Lab File ID: IB0870.D DFTPP Injection Date: 02/22/2022

Instrument ID: HP10976 DFTPP Injection Time: 06:48

Analysis Batch No.: 226145

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	27.4	
68	Less than 2% of mass 69	0.3	(1.0) 1
69	Mass 69 Relative abundance	33.6	
70	Less than 2% of mass 69	0.2	(0.5) 1
127	10-80% of Base Peak	31.1	
197	Less than 2% of mass 198	0.1	
198	Base peak	100.0	
199	5-9% of mass 198	6.5	
275	10-60% of Base Peak	27.3	
365	Greater than 1% of mass 198	3.5	
441	present but less than 24% of mass 442	16.3	(14.4) 2
442	Greater than 50% of mass 198	113.2	
443	15-24% of mass 442	21.0	(18.6) 2

1-Value is % mass 69 2-Value is % mass 442

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-226145/2	IB0871a.D	02/22/2022	7:45
IMPORT-1-20220216	410-73279-1	IB0877.D	02/22/2022	10:54
IMPORT-1-20220216 MS	410-73279-1 MS	IB0878.D	02/22/2022	11:25
IMPORT-1-20220216 MSD	410-73279-1 MSD	IB0879.D	02/22/2022	11:55
IMPORT-2-20220216	410-73279-2	IB0880.D	02/22/2022	12:26
DUP-20220216	410-73279-3	IB0881.D	02/22/2022	12:57

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Lab File ID: NB0400e.D DFTPP Injection Date: 02/24/2022

Instrument ID: HP23263 DFTPP Injection Time: 16:52

Analysis Batch No.: 227325

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	36.9
68	Less than 2% of mass 69	0.5 (1.5) 1
69	Mass 69 Relative abundance	36.0
70	Less than 2% of mass 69	0.2 (0.6) 1
127	10-80% of Base Peak	45.5
197	Less than 2% of mass 198	0.0
198	Base peak	100.0
199	5-9% of mass 198	7.0
275	10-60% of Base Peak	38.8
365	Greater than 1% of mass 198	8.5
441	present but less than 24% of mass 442	35.2 (17.4) 2
442	Greater than 50% of mass 198	202.8
443	15-24% of mass 442	40.4 (19.9) 2

1-Value is % mass 69 2-Value is % mass 442

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 410-227325/2	NB0401b.D	02/24/2022	17:14
	IC 410-227325/3	NB0402.D	02/24/2022	17:41
	IC 410-227325/4	NB0403.D	02/24/2022	18:03
	IC 410-227325/5	NB0404.D	02/24/2022	18:25
	IC 410-227325/6	NB0405.D	02/24/2022	18:48
	IC 410-227325/7	NB0406.D	02/24/2022	19:10
	ICV 410-227325/9	NB0408.D	02/24/2022	19:54
	ICV 410-227325/10	NB0409.D	02/24/2022	20:16

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Lab File ID: NB0420.D DFTPP Injection Date: 02/24/2022

Instrument ID: HP23263 DFTPP Injection Time: 21:00

Analysis Batch No.: 227542

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	35.6	
68	Less than 2% of mass 69	0.5	(1.5) 1
69	Mass 69 Relative abundance	35.1	
70	Less than 2% of mass 69	0.2	(0.7) 1
127	10-80% of Base Peak	46.1	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.9	
275	10-60% of Base Peak	38.5	
365	Greater than 1% of mass 198	8.3	
441	present but less than 24% of mass 442	34.9	(17.1) 2
442	Greater than 50% of mass 198	203.4	
443	15-24% of mass 442	41.4	(20.3) 2

1-Value is % mass 69 2-Value is % mass 442

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-227542/2	NB0421.D	02/24/2022	21:21
	MB 410-226489/1-A	NB0422.D	02/24/2022	22:01
	LCS 410-226489/2-A	NB0423.D	02/24/2022	22:24
FB-20220216	410-73279-4	NB0425.D	02/24/2022	23:08

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Sample No.: ICIS 410-225714/2 Date Analyzed: 02/21/2022 05:36

Instrument ID: HP10976 GC Column: Rxi-.5SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IB0701.D Heated Purge: (Y/N) N

Calibration ID: 35615

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		119588	7.99	378792	9.56	243663	11.75
UPPER LIMIT		239176	8.49	757584	10.06	487326	12.25
LOWER LIMIT		59794	7.49	189396	9.06	121832	11.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-225714/11		77718	7.99	225237	9.56	145940	11.75
CCVIS 410-226084/2		187745	7.99	549055	9.55	358594	11.74
CCVIS 410-226145/2		141615	7.99	465115	9.56	313018	11.75

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Sample No.: ICIS 410-225714/2 Date Analyzed: 02/21/2022 05:36

Instrument ID: HP10976 GC Column: Rxi-.5SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IB0701.D Heated Purge: (Y/N) N

Calibration ID: 35615

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		488638	13.61	461262	16.92	433966	19.11
UPPER LIMIT		977276	14.11	922524	17.42	867932	19.61
LOWER LIMIT		244319	13.11	230631	16.42	216983	18.61
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-225714/11		266425	13.62	253630	16.92	237486	19.11
CCVIS 410-226084/2		681263	13.61	640171	16.92	604315	19.10
CCVIS 410-226145/2		648343	13.62	659119	16.92	691684	19.08

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Sample No.: CCVIS 410-226084/2 Date Analyzed: 02/21/2022 19:12

Instrument ID: HP10976 GC Column: Rxi-.5SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IB0801.D Heated Purge: (Y/N) N

Calibration ID: 35615

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		187745	7.99	549055	9.55	358594	11.74
UPPER LIMIT		375490	8.49	1098110	10.05	717188	12.24
LOWER LIMIT		93873	7.49	274528	9.05	179297	11.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 410-225699/1-A		112307	7.99	336220	9.55	213684	11.74
LCS 410-225699/2-A		115135	7.99	375098	9.55	217938	11.73

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Sample No.: CCVIS 410-226084/2 Date Analyzed: 02/21/2022 19:12

Instrument ID: HP10976 GC Column: Rxi-.5SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IB0801.D Heated Purge: (Y/N) N

Calibration ID: 35615

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		681263	13.61	640171	16.92	604315	19.10
UPPER LIMIT		1362526	14.11	1280342	17.42	1208630	19.60
LOWER LIMIT		340632	13.11	320086	16.42	302158	18.60
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 410-225699/1-A		400272	13.61	367684	16.92	333069	19.10
LCS 410-225699/2-A		401709	13.60	371605	16.91	335999	19.10

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Sample No.: CCVIS 410-226145/2 Date Analyzed: 02/22/2022 07:45

Instrument ID: HP10976 GC Column: Rxi-.5SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IB0871a.D Heated Purge: (Y/N) N

Calibration ID: 35615

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		141615	7.99	465115	9.56	313018	11.75
UPPER LIMIT		283230	8.49	930230	10.06	626036	12.25
LOWER LIMIT		70808	7.49	232558	9.06	156509	11.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
410-73279-1	IMPORT-1-20220216	129665	8.01	423374	9.56	285051	11.75
410-73279-1 MS	IMPORT-1-20220216 MS	133182	8.01	490333	9.56	286375	11.75
410-73279-1 MSD	IMPORT-1-20220216 MSD	131552	8.01	490620	9.56	280648	11.75
410-73279-2	IMPORT-2-20220216	136252	8.01	443999	9.56	284955	11.75
410-73279-3	DUP-20220216	142644	8.01	468547	9.56	301298	11.75

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Sample No.: CCVIS 410-226145/2 Date Analyzed: 02/22/2022 07:45

Instrument ID: HP10976 GC Column: Rxi-.5SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IB0871a.D Heated Purge: (Y/N) N

Calibration ID: 35615

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		648343	13.62	659119	16.92	691684	19.08
UPPER LIMIT		1296686	14.12	1318238	17.42	1383368	19.58
LOWER LIMIT		324172	13.12	329560	16.42	345842	18.58
LAB SAMPLE ID	CLIENT SAMPLE ID						
410-73279-1	IMPORT-1-20220216	576136	13.62	579056	16.92	567085	19.09
410-73279-1 MS	IMPORT-1-20220216 MS	581900	13.62	584732	16.92	563203	19.09
410-73279-1 MSD	IMPORT-1-20220216 MSD	570717	13.62	555448	16.92	534467	19.09
410-73279-2	IMPORT-2-20220216	571783	13.62	554938	16.92	530064	19.08
410-73279-3	DUP-20220216	594642	13.62	575473	16.92	552173	19.08

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Sample No.: ICIS 410-227325/2 Date Analyzed: 02/24/2022 17:14

Instrument ID: HP23263 GC Column: DB-5MS 30m 0.25 ID: 0.25(mm)

Lab File ID (Standard): NB0401b.D Heated Purge: (Y/N) N

Calibration ID: 35778

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		23399	4.52	85468	5.72	41331	7.38
UPPER LIMIT		46798	5.02	170936	6.22	82662	7.88
LOWER LIMIT		11700	4.02	42734	5.22	20666	6.88
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-227325/9		21270	4.52	71226	5.72	39221	7.38
ICV 410-227325/10		20712	4.53	67424	5.72	39619	7.38
CCVIS 410-227542/2		22646	4.53	76861	5.72	41177	7.38

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Sample No.: ICIS 410-227325/2 Date Analyzed: 02/24/2022 17:14

Instrument ID: HP23263 GC Column: DB-5MS 30m 0.25 ID: 0.25(mm)

Lab File ID (Standard): NB0401b.D Heated Purge: (Y/N) N

Calibration ID: 35778

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		74603	8.78	69373	11.46	82404	13.42
UPPER LIMIT		149206	9.28	138746	11.96	164808	13.92
LOWER LIMIT		37302	8.28	34687	10.96	41202	12.92
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-227325/9		69820	8.78	62072	11.46	71585	13.41
ICV 410-227325/10		67604	8.79	61016	11.45	69504	13.42
CCVIS 410-227542/2		75230	8.78	69534	11.46	82764	13.42

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Sample No.: CCVIS 410-227542/2 Date Analyzed: 02/24/2022 21:21

Instrument ID: HP23263 GC Column: DB-5MS 30m 0.25 ID: 0.25(mm)

Lab File ID (Standard): NB0421.D Heated Purge: (Y/N) N

Calibration ID: 35778

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		22646	4.53	76861	5.72	41177	7.38
UPPER LIMIT		45292	5.03	153722	6.22	82354	7.88
LOWER LIMIT		11323	4.03	38431	5.22	20589	6.88
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 410-226489/1-A		21173	4.52	66936	5.72	36498	7.38
LCS 410-226489/2-A		19974	4.52	72473	5.72	36346	7.38
410-73279-4	FB-20220216	21435	4.52	69287	5.72	39372	7.38

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Sample No.: CCVIS 410-227542/2 Date Analyzed: 02/24/2022 21:21

Instrument ID: HP23263 GC Column: DB-5MS 30m 0.25 ID: 0.25(mm)

Lab File ID (Standard): NB0421.D Heated Purge: (Y/N) N

Calibration ID: 35778

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		75230	8.78	69534	11.46	82764	13.42
UPPER LIMIT		150460	9.28	139068	11.96	165528	13.92
LOWER LIMIT		37615	8.28	34767	10.96	41382	12.92
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 410-226489/1-A		66911	8.79	58584	11.46	69461	13.42
LCS 410-226489/2-A		65714	8.79	58578	11.45	68046	13.42
410-73279-4	FB-20220216	69495	8.79	64024	11.46	123023	13.42

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Client Sample ID: IMPORT-1-20220216 Lab Sample ID: 410-73279-1

Matrix: Solid Lab File ID: IB0877.D

Analysis Method: 8270D SIM Date Collected: 02/16/2022 12:20

Extract. Method: 3546 Date Extracted: 02/20/2022 19:08

Sample wt/vol: 30.25(g) Date Analyzed: 02/22/2022 10:54

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

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

% Moisture: 2.8 GPC Cleanup:(Y/N) N

Analysis Batch No.: 226145 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND	*+ F1	3.1	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
63466-71-7	Benzo(a)pyrene-d12 (Surr)	98		36-119
38072-94-5	1-Methylnaphthalene-d10 (Surr)	92		37-110
93951-69-0	Fluoranthene-d10 (Surr)	100		41-135

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0877.D				
Lims ID:	410-73279-B-1-C				
Client ID:	IMPORT-1-20220216				
Sample Type:	Client				
Inject. Date:	22-Feb-2022 10:54:30	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-B-1-C				
Misc. Info.:	410-0050858-008				
Operator ID:	jmg00346	Instrument ID:	HP10976		
Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	23-Feb-2022 03:28:49	Calib Date:	21-Feb-2022 08:48:30		
Integrator:	Falcon	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1644				

First Level Reviewer: gamblerj Date: 23-Feb-2022 03:26:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 4 1,4-Dichlorobenzene-d4	152	8.007	7.994	0.013	87	129665	1.00	
* 5 Naphthalene-d8	136	9.559	9.559	0.000	99	423374	1.00	
$ 9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	100	225696	0.9242	
* 13 Acenaphthene-d10	164	11.746	11.746	0.000	99	285051	1.00	
* 20 Phenanthrene-d10	188	13.616	13.616	0.000	100	576136	1.00	
$ 24 Fluoranthene-d10 (Surr)	212	15.116	15.116	0.000	98	736714	1.00	
* 30 Chrysene-d12	240	16.922	16.922	0.000	91	579056	1.00	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.948	18.963	-0.008	100	524297	0.9828	
* 36 Perylene-d12	264	19.089	19.081	0.008	100	567085	1.00	

QC Flag Legend

Processing Flags

Reagents:

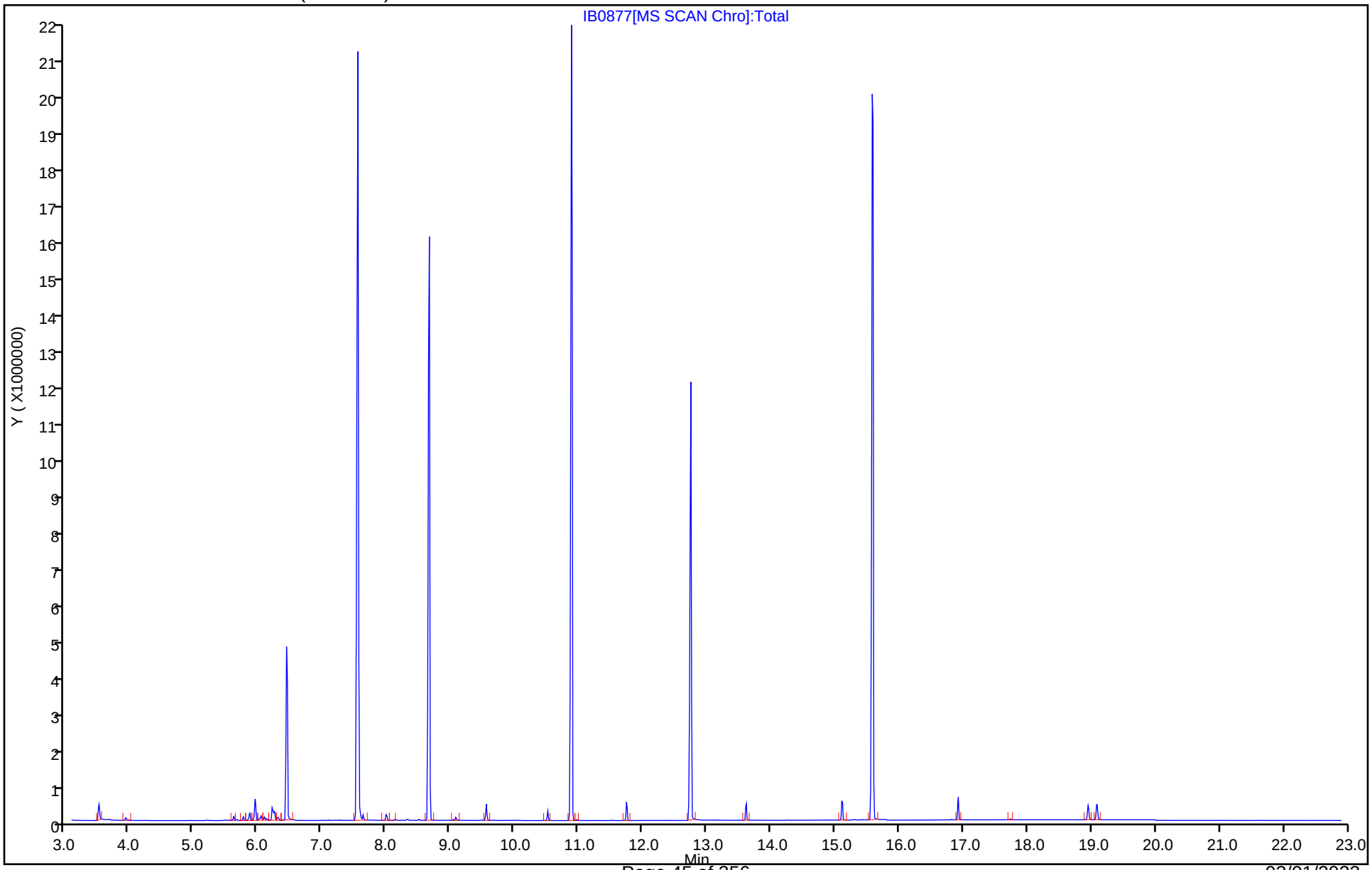
MSS_FVSIM_IS_00014 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 23-Feb-2022 03:29:31 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0877.D				
Injection Date:	22-Feb-2022 10:54:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	410-73279-B-1-C	Lab Sample ID:	410-73279-1	Worklist Smp#:	8
Client ID:	IMPORT-1-20220216				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0877.D				
Lims ID:	410-73279-B-1-C				
Client ID:	IMPORT-1-20220216				
Sample Type:	Client				
Inject. Date:	22-Feb-2022 10:54:30	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-B-1-C				
Misc. Info.:	410-0050858-008				
Operator ID:	jmg00346	Instrument ID:	HP10976		
Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	23-Feb-2022 03:28:49	Calib Date:	21-Feb-2022 08:48:30		
Integrator:	Falcon	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1644				

First Level Reviewer: gamblerj Date: 23-Feb-2022 03:26:31

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1-Methylnaphthalene-d10	1.00	0.9242	92.42
$ 24 Fluoranthene-d10 (Surr)	1.00	1.00	99.83
$ 38 Benzo(a)pyrene-d12 (Surr)	1.00	0.9828	98.28

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Client Sample ID: IMPORT-2-20220216 Lab Sample ID: 410-73279-2

Matrix: Solid Lab File ID: IB0880.D

Analysis Method: 8270D SIM Date Collected: 02/16/2022 12:30

Extract. Method: 3546 Date Extracted: 02/20/2022 19:08

Sample wt/vol: 30.23(g) Date Analyzed: 02/22/2022 12:26

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

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

% Moisture: 2.8 GPC Cleanup:(Y/N) N

Analysis Batch No.: 226145 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND	*+	3.1	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
63466-71-7	Benzo(a)pyrene-d12 (Surr)	103		36-119
38072-94-5	1-Methylnaphthalene-d10 (Surr)	96		37-110
93951-69-0	Fluoranthene-d10 (Surr)	104		41-135

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0880.D				
Lims ID:	410-73279-B-2-A				
Client ID:	IMPORT-2-20220216				
Sample Type:	Client				
Inject. Date:	22-Feb-2022 12:26:30	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-B-2-A				
Misc. Info.:	410-0050858-011				
Operator ID:	jmg00346	Instrument ID:	HP10976		
Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	23-Feb-2022 03:28:49	Calib Date:	21-Feb-2022 08:48:30		
Integrator:	Falcon	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1644				
First Level Reviewer: gamblerj		Date:	23-Feb-2022 03:27:39		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 4 1,4-Dichlorobenzene-d4	152	8.007	7.994	0.013	86	136252	1.00	
* 5 Naphthalene-d8	136	9.559	9.559	0.000	99	443999	1.00	
$ 9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	100	244985	0.9576	
* 13 Acenaphthene-d10	164	11.746	11.746	0.000	99	284955	1.00	
* 20 Phenanthrene-d10	188	13.616	13.616	0.000	100	571783	1.00	
$ 24 Fluoranthene-d10 (Surr)	212	15.104	15.116	-0.012	100	762871	1.04	
* 30 Chrysene-d12	240	16.923	16.922	0.000	90	554938	1.00	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.948	18.963	-0.008	100	513265	1.03	
* 36 Perylene-d12	264	19.081	19.081	0.000	100	530064	1.00	

QC Flag Legend

Processing Flags

Reagents:

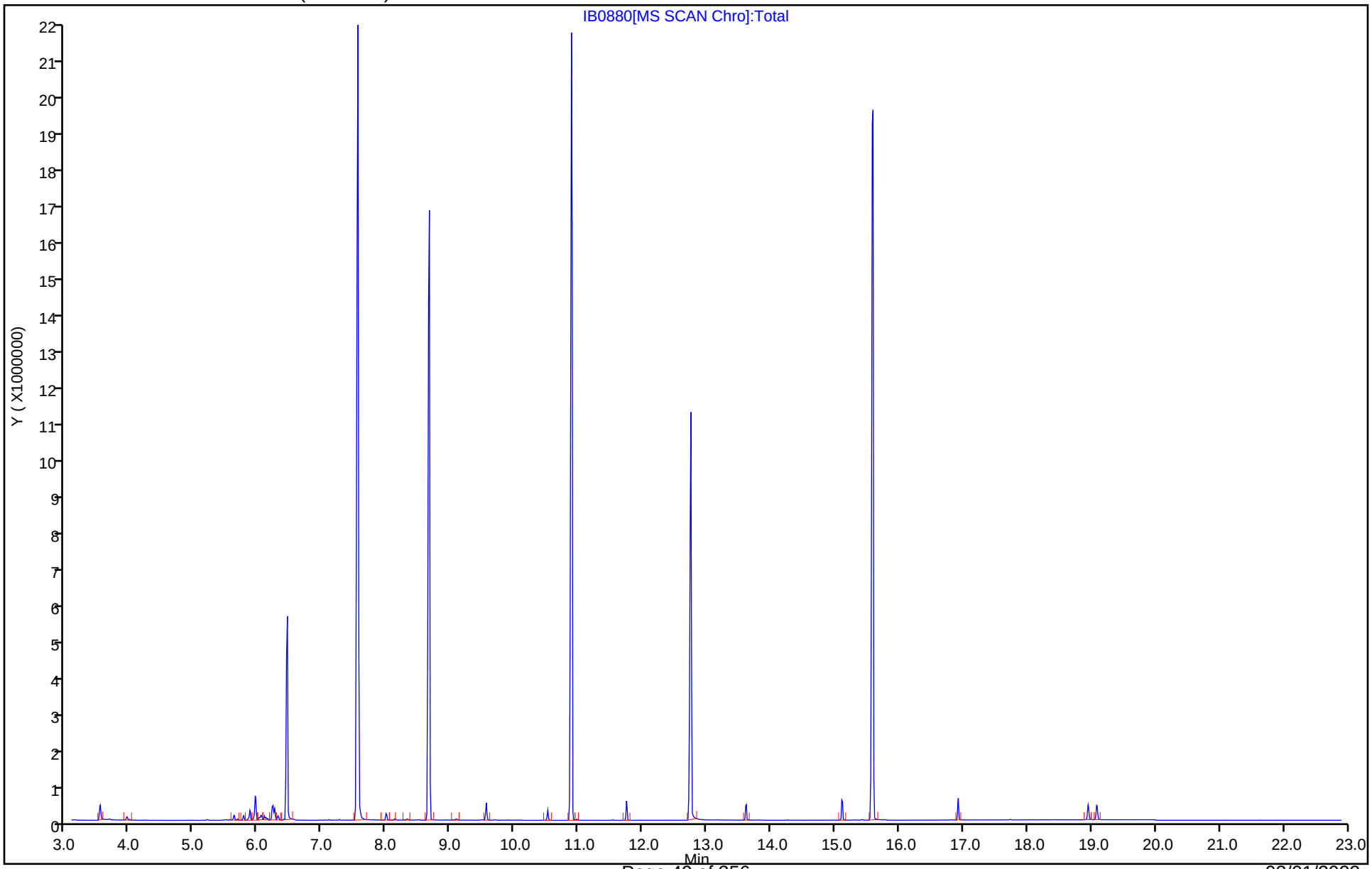
MSS_FVSIM_IS_00014 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 23-Feb-2022 03:29:33 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0880.D				
Injection Date:	22-Feb-2022 12:26:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	410-73279-B-2-A	Lab Sample ID:	410-73279-2	Worklist Smp#:	11
Client ID:	IMPORT-2-20220216				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0880.D				
Lims ID:	410-73279-B-2-A				
Client ID:	IMPORT-2-20220216				
Sample Type:	Client				
Inject. Date:	22-Feb-2022 12:26:30	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-B-2-A				
Misc. Info.:	410-0050858-011				
Operator ID:	jmg00346	Instrument ID:	HP10976		

Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	23-Feb-2022 03:28:49	Calib Date:	21-Feb-2022 08:48:30
Integrator:	Falcon	ID Type:	RT Order ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D		

Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Det: MS SCAN
Process Host:	CTX1644	

First Level Reviewer: gamblerj Date: 23-Feb-2022 03:27:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1-Methylnaphthalene-d10	1.00	0.9576	95.76
$ 24 Fluoranthene-d10 (Surr)	1.00	1.04	104.16
$ 38 Benzo(a)pyrene-d12 (Surr)	1.00	1.03	102.93

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Client Sample ID: DUP-20220216 Lab Sample ID: 410-73279-3

Matrix: Solid Lab File ID: IB0881.D

Analysis Method: 8270D SIM Date Collected: 02/16/2022 00:00

Extract. Method: 3546 Date Extracted: 02/20/2022 19:08

Sample wt/vol: 30.22(g) Date Analyzed: 02/22/2022 12:57

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

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

% Moisture: 3.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 226145 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND	*+	3.1	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
63466-71-7	Benzo(a)pyrene-d12 (Surr)	99		36-119
38072-94-5	1-Methylnaphthalene-d10 (Surr)	93		37-110
93951-69-0	Fluoranthene-d10 (Surr)	101		41-135

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0881.D				
Lims ID:	410-73279-B-3-A				
Client ID:	DUP-20220216				
Sample Type:	Client				
Inject. Date:	22-Feb-2022 12:57:30	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-B-3-A				
Misc. Info.:	410-0050858-012				
Operator ID:	jmg00346	Instrument ID:	HP10976		

Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	23-Feb-2022 03:28:49	Calib Date:	21-Feb-2022 08:48:30
Integrator:	Falcon	ID Type:	RT Order ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D		

Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Det: MS SCAN
Process Host:	CTX1644	

First Level Reviewer: gamblerj Date: 23-Feb-2022 03:27:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 4 1,4-Dichlorobenzene-d4	152	8.007	7.994	0.013	82	142644	1.00	
* 5 Naphthalene-d8	136	9.559	9.559	0.000	98	468547	1.00	
$ 9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	100	250278	0.9261	
* 13 Acenaphthene-d10	164	11.746	11.746	0.000	99	301298	1.00	
* 20 Phenanthrene-d10	188	13.616	13.616	0.000	100	594642	1.00	
$ 24 Fluoranthene-d10 (Surr)	212	15.104	15.116	-0.012	100	771338	1.01	
* 30 Chrysene-d12	240	16.922	16.922	0.000	91	575473	1.00	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.948	18.963	-0.008	100	515905	0.99	
* 36 Perylene-d12	264	19.081	19.081	0.000	100	552173	1.00	

QC Flag Legend

Processing Flags

Reagents:

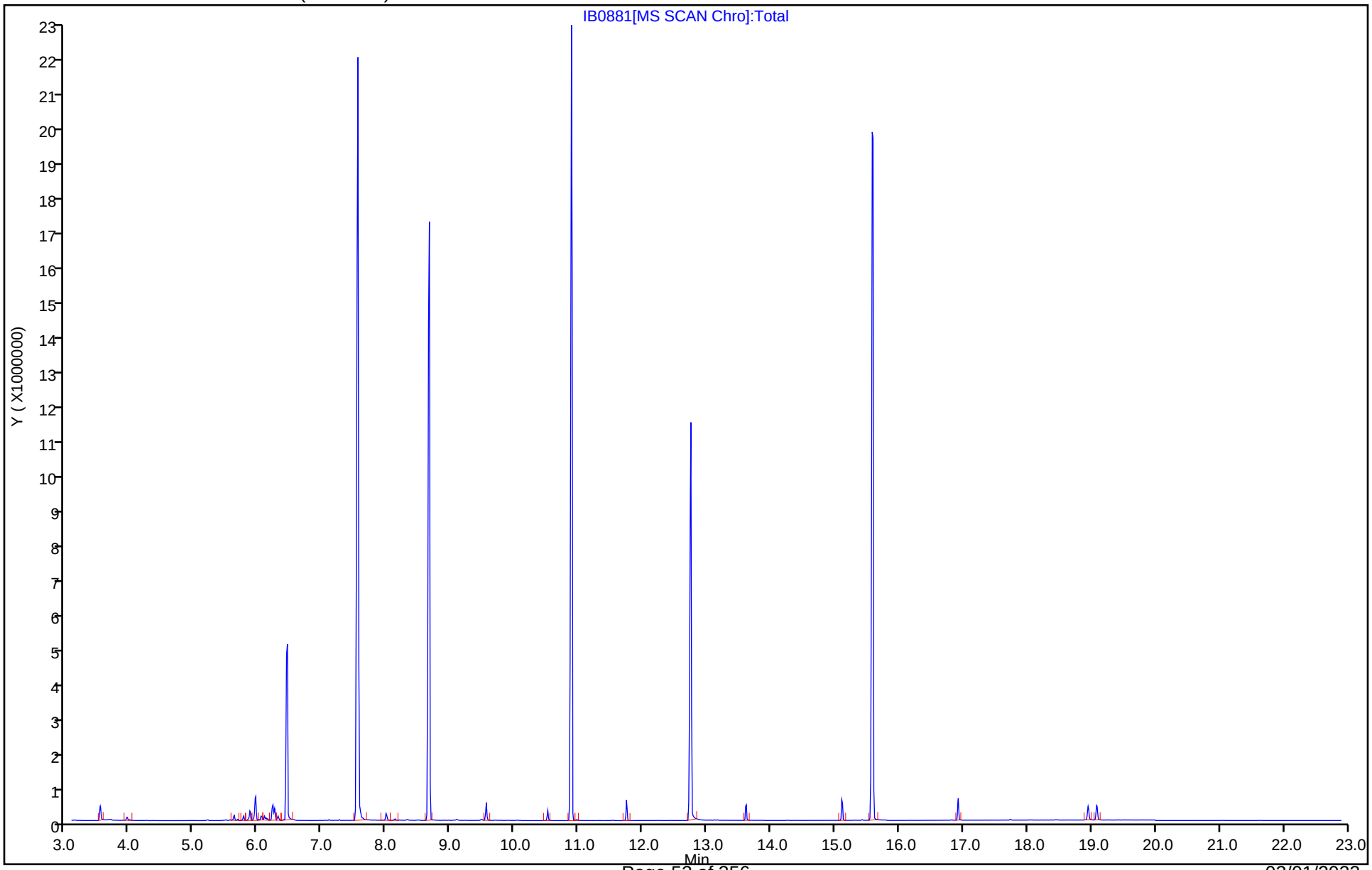
MSS_FVSIM_IS_00014 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 23-Feb-2022 03:29:33 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0881.D				
Injection Date:	22-Feb-2022 12:57:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	410-73279-B-3-A	Lab Sample ID:	410-73279-3	Worklist Smp#:	12
Client ID:	DUP-20220216				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0881.D				
Lims ID:	410-73279-B-3-A				
Client ID:	DUP-20220216				
Sample Type:	Client				
Inject. Date:	22-Feb-2022 12:57:30	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-B-3-A				
Misc. Info.:	410-0050858-012				
Operator ID:	jmg00346	Instrument ID:	HP10976		

Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	23-Feb-2022 03:28:49	Calib Date:	21-Feb-2022 08:48:30
Integrator:	Falcon	ID Type:	RT Order ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D		

Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Det: MS SCAN	
Process Host:	CTX1644		

First Level Reviewer: gamblerj Date: 23-Feb-2022 03:27:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1-Methylnaphthalene-d10	1.00	0.9261	92.61
$ 24 Fluoranthene-d10 (Surr)	1.00	1.01	101.27
$ 38 Benzo(a)pyrene-d12 (Surr)	1.00	0.99	99.32

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Client Sample ID: FB-20220216 Lab Sample ID: 410-73279-4

Matrix: Water Lab File ID: NB0425.D

Analysis Method: 8270D SIM Date Collected: 02/16/2022 12:35

Extract. Method: 3510C Date Extracted: 02/22/2022 16:35

Sample wt/vol: 228(mL) Date Analyzed: 02/24/2022 23:08

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

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

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

Analysis Batch No.: 227542 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.33	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
63466-71-7	Benzo(a)pyrene-d12 (Surr)	57		10-110
38072-94-5	1-Methylnaphthalene-d10 (Surr)	82		36-111
93951-69-0	Fluoranthene-d10 (Surr)	100		47-128

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0425.D				
Lims ID:	410-73279-A-4-A				
Client ID:	FB-20220216				
Sample Type:	Client				
Inject. Date:	24-Feb-2022 23:08:30	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-A-4-A				
Misc. Info.:	410-0051157-006				
Operator ID:	kel10217	Instrument ID:	HP23263		

Method:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\8270_SIM_HP23263.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	25-Feb-2022 17:33:52	Calib Date:	24-Feb-2022 19:10:30
Integrator:	Falcon	ID Type:	RT Order ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D		

Column 1 :	DB-5MS 20m 0.25mm (0.25 mm)	Det: MS SCAN
Process Host:	CTX1610	

First Level Reviewer: saadehw Date: 25-Feb-2022 17:18:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 4 1,4-Dichlorobenzene-d4	152	4.517	4.530	-0.013	85	21435	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	69287	0.2500	
$ 9 1-Methylnaphthalene-d10	152	6.445	6.445	-0.002	99	28170	0.2056	
* 13 Acenaphthene-d10	164	7.376	7.379	-0.003	96	39372	0.2500	
* 20 Phenanthrene-d10	188	8.788	8.783	0.005	100	69495	0.2500	
$ 24 Fluoranthene-d10 (Surr)	212	9.921	9.921	-0.001	96	70476	0.2511	
* 29 Chrysene-d12	240	11.455	11.455	0.000	68	64024	0.2500	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.295	13.303	-0.001	96	66784	0.1419	
* 38 Perylene-d12	264	13.418	13.419	-0.001	92	123023	0.2500	

QC Flag Legend

Processing Flags

Reagents:

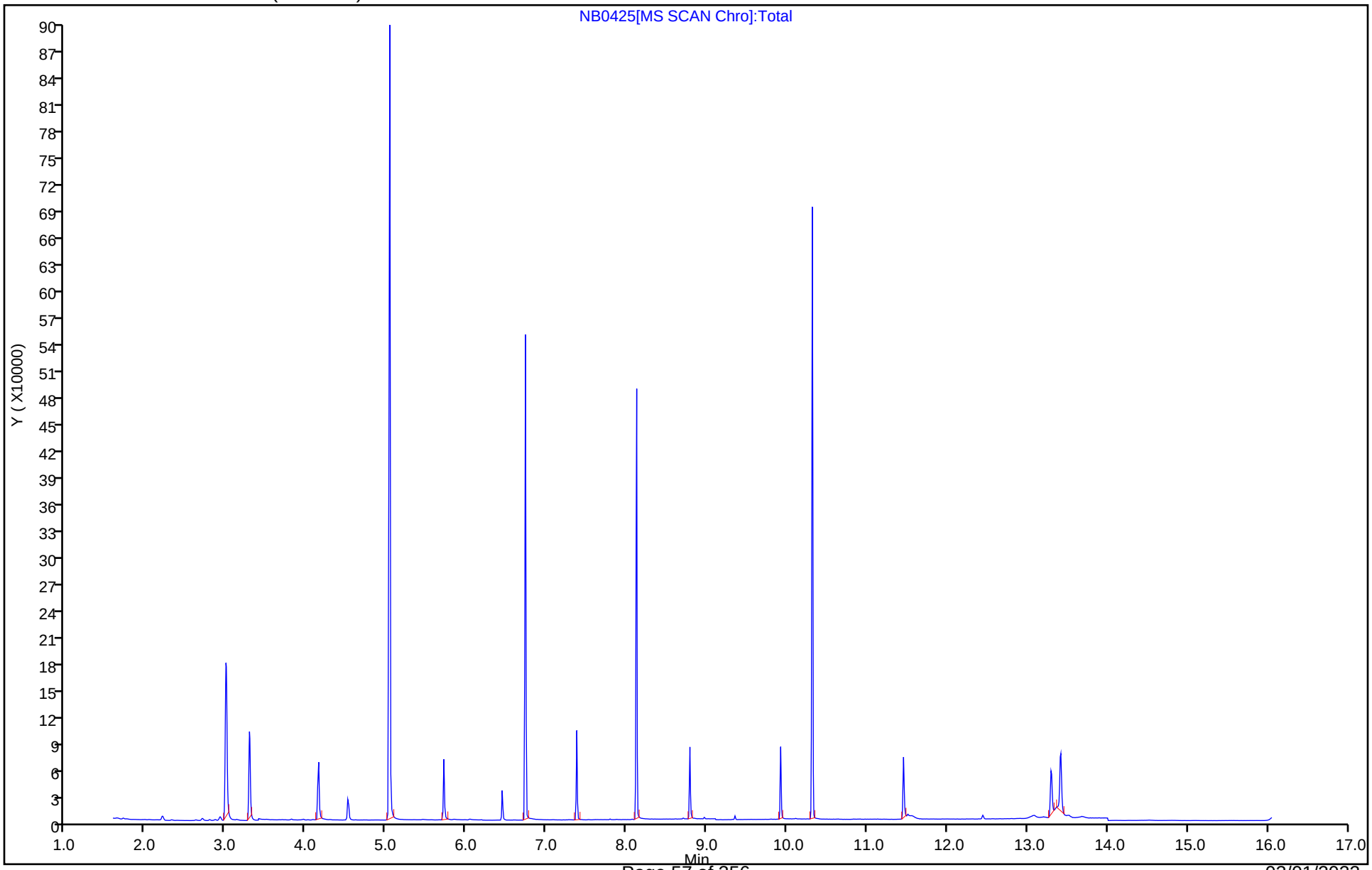
MSS_RVSIM_IS_00021 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 25-Feb-2022 17:33:59 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0425.D				
Injection Date:	24-Feb-2022 23:08:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	410-73279-A-4-A	Lab Sample ID:	410-73279-4	Worklist Smp#:	6
Client ID:	FB-20220216				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0425.D				
Lims ID:	410-73279-A-4-A				
Client ID:	FB-20220216				
Sample Type:	Client				
Inject. Date:	24-Feb-2022 23:08:30	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-A-4-A				
Misc. Info.:	410-0051157-006				
Operator ID:	kel10217	Instrument ID:	HP23263		

Method:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\8270_SIM_HP23263.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	25-Feb-2022 17:33:52	Calib Date:	24-Feb-2022 19:10:30
Integrator:	Falcon	ID Type:	RT Order ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D		

Column 1 :	DB-5MS 20m 0.25mm (0.25 mm)	Det: MS SCAN
Process Host:	CTX1610	

First Level Reviewer: saadehw Date: 25-Feb-2022 17:18:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1-Methylnaphthalene-d10	0.2500	0.2056	82.24
$ 24 Fluoranthene-d10 (Surr)	0.2500	0.2511	100.42
$ 36 Benzo(a)pyrene-d12 (Surr)	0.2500	0.1419	56.76

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 225714

SDG No.:

Instrument ID: HP10976 GC Column: Rxi-.5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/21/2022 05:36 Calibration End Date: 02/21/2022 08:48 Calibration ID: 35615

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-225714/8	IB0707.D
Level 2	IC 410-225714/7	IB0706.D
Level 3	IC 410-225714/6	IB0705.D
Level 4	IC 410-225714/5	IB0704.D
Level 5	ICIS 410-225714/2	IB0701.D
Level 6	IC 410-225714/4	IB0703.D
Level 7	IC 410-225714/3	IB0702.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.9124 0.5608	0.7313 0.4829	0.6866	0.6336	0.5783	Qua1	0.0035	0.6235	-0.013972			1.0					0.9900
N-Nitrosodimethylamine	1.1714 0.7061	0.8464 0.6156	0.7503	0.7160	0.7226	Lin1	0.0075	0.6514							0.9950		0.9900
Bis(2-chloroethyl)ether	0.8043 0.4999	0.6759 0.4192	0.6139	0.5629	0.5259	Qua1	0.0030	0.5651	-0.014478			1.0					0.9900
Naphthalene	1.8681 0.9864	1.4392 0.7960	1.2815	1.1841	1.1311	Qua	0.0119	1.1717	-0.037678			1.0					0.9900
Quinoline	0.8334 0.7135	0.7568 0.5897	0.7949	0.7816	0.7380	Ave		0.7440				10.5		20.4			
2-Methylnaphthalene	1.0735 0.6694	0.8690 0.5564	0.8056	0.7780	0.7325	Qua	0	0.7793	-0.022272			1.0					0.9900
1-Methylnaphthalene	1.0355 0.6506	0.8573 0.5390	0.7796	0.7591	0.6978	Qua1	0.0034	0.7471	-0.020710			1.0					0.9900
Dimethylphthalate	1.5237 1.1784	1.3225 0.9919	1.2791	1.2905	1.3498	Ave		1.2765				12.8		20.4			
Acenaphthylene	1.8393 1.4688	1.5871 1.2242	1.5262	1.5519	1.6920	Ave		1.5556				12.3		20.4			
Acenaphthene	1.5272 0.9254	1.2802 0.7676	1.1944	1.0781	1.0379	Qua	0.0082	1.0786	-0.031180			1.0					0.9900
Dibenzofuran	2.6691 1.5762	2.2913 1.3081	2.0198	1.8994	1.8900	Qua1	0.0107	1.8979	-0.059674			1.0					0.9900
Diethylphthalate	1.2988 1.0580	1.0215 0.9037	1.0509	1.1027	1.2781	Ave		1.1020				12.8		20.4			
Fluorene	1.6935 1.1648	1.4512 0.9733	1.3629	1.3230	1.3342	Ave		1.3290				16.9		20.4			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 225714

SDG No.:

Instrument ID: HP10976 GC Column: Rxi-.5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/21/2022 05:36 Calibration End Date: 02/21/2022 08:48 Calibration ID: 35615

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
N-Nitrosodiphenylamine	0.5769 0.3808	0.4852 0.3188	0.4797	0.4871	0.4430	Ave		0.4531				18.4		20.4			
Hexachlorobenzene	0.4228 0.2544	0.3473 0.2166	0.3188	0.3048	0.2588	Qua	0.0003	0.2894	-0.007271			1.0					0.9900
Phenanthrene	1.8559 0.9467	1.3948 0.7915	1.2398	1.1496	1.0858	Qua1	0.0092	1.1197	-0.033149			1.0					0.9900
Anthracene	1.2828 0.9407	1.0857 0.7955	1.1067	1.0605	1.0512	Ave		1.0462				14.4		20.4			
Di-n-butyl phthalate	1.0543 0.8809	0.7331 0.7569	0.7919	0.9025	1.0681	Ave		0.8840				15.4		20.4			
Fluoranthene	1.7951 1.2153	1.5175 1.0216	1.4524	1.4041	1.3668	Ave		1.3961				17.3		20.4			
Pyrene	2.0849 1.2605	1.6972 1.0759	1.6321	1.5420	1.5275	Qua1	0.0076	1.5139	-0.044608			1.0					0.9900
Butylbenzylphthalate	0.3155 0.3846	0.2405 0.3397	0.2707	0.3311	0.3938	Ave		0.3251				17.2		20.4			
Bis(2-ethylhexyl) phthalate	0.4281 0.5511	0.3095 0.4829	0.3650	0.4611	0.5751	Lin1	-0.003	0.5074							0.9940		0.9900
Benzo[a]anthracene	2.1321 1.1766	1.4905 1.0325	1.3696	1.3340	1.3625	Lin2	0.0090	1.2488							0.9910		0.9900
Chrysene	2.1879 1.2561	1.6956 1.0556	1.6220	1.4900	1.4448	Qua1	0.0087	1.4794	-0.042736			1.0					0.9900
Di-n-octyl phthalate	0.5241 0.8706	0.4760 0.8045	0.5642	0.7035	0.9745	Lin1	-0.007	0.8302							0.9950		0.9900
Benzo[b]fluoranthene	1.7215 1.0684	1.3927 1.0206	1.3569	1.3047	1.4014	Ave		1.3237				17.6		20.4			
Benzo[k]fluoranthene	1.8459 1.2028	1.5441 1.0140	1.4811	1.4422	1.4071	Ave		1.4196				18.5		20.4			
Benzo[e]pyrene	1.7733 1.0897	1.4687 0.9771	1.3872	1.3206	1.3506	Ave		1.3382				19.3		20.4			
Benzo[a]pyrene	1.4512 1.0698	1.2638 0.9467	1.3192	1.2875	1.3151	Ave		1.2362				13.8		20.4			
Perylene	1.8806 1.0860	1.5554 0.9512	1.4895	1.4429	1.4075	Qua1	0.0082	1.3501	-0.041324			1.0					0.9900
Indeno[1,2,3-cd]pyrene	1.6575 1.1365	1.4562 1.0405	1.4214	1.3634	1.3124	Ave		1.3411				15.3		20.4			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 225714

SDG No.:

Instrument ID: HP10976 GC Column: Rxi-.5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/21/2022 05:36 Calibration End Date: 02/21/2022 08:48 Calibration ID: 35615

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibenz(a,h)anthracene	1.4143 0.9964	1.2335 0.9163	1.2470	1.1816	1.1173	Ave		1.1581				14.4		20.4			
Benzo[g,h,i]perylene	1.7139 1.0484	1.3909 0.9460	1.3432	1.3075	1.1902	Ave		1.2772				19.7		20.4			
1-Methylnaphthalene-d10 (Surr)	0.8164 0.5177	0.6699 0.4293	0.6163	0.5939	0.5450	Qua1	0.0026	0.5886	-0.015794			1.0					0.9900
Fluoranthene-d10 (Surr)	1.7056 1.1094	1.3522 0.9481	1.3183	1.2766	1.2560	Ave		1.2809				18.2		20.4			
Benzo(a)pyrene-d12 (Surr)	1.0804 0.8701	0.9257 0.7874	0.9777	0.9710	0.9727	Ave		0.9407				9.9		20.4			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 225714

SDG No.:

Instrument ID: HP10976 GC Column: Rxi-.5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/21/2022 05:36 Calibration End Date: 02/21/2022 08:48 Calibration ID: 35615

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-225714/8	IB0707.D
Level 2	IC 410-225714/7	IB0706.D
Level 3	IC 410-225714/6	IB0705.D
Level 4	IC 410-225714/5	IB0704.D
Level 5	ICIS 410-225714/2	IB0701.D
Level 6	IC 410-225714/4	IB0703.D
Level 7	IC 410-225714/3	IB0702.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane	DCBd 4	Qual	856 247810	2955 410185	11716	29948	69159	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
N-Nitrosodimethylamine	DCBd 4	Lin1	1099 312043	3420 522931	12803	33844	86409	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Bis(2-chloroethyl)ether	NPT	Qual	2184 644700	7763 1051618	30098	76978	199199	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Naphthalene	NPT	Qua	5073 1272204	16531 1996683	62833	161921	428455	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Quinoline	NPT	Ave	2263 920258	8693 1479264	38972	106886	279540	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
2-Methylnaphthalene	NPT	Qua	2915 863306	9981 1395657	39499	106389	277450	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
1-Methylnaphthalene	NPT	Qual	2812 839110	9847 1352088	38224	103798	264329	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Dimethylphthalate	ANT	Ave	2602 1025594	9597 1684682	40474	116929	328888	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Acenaphthylene	ANT	Ave	3141 1278348	11517 2079325	48294	140616	412276	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Acenaphthene	ANT	Qua	2608 805423	9290 1303704	37795	97690	252894	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Dibenzofuran	ANT	Qual	4558 1371804	16627 2221896	63913	172110	460518	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Diethylphthalate	ANT	Ave	2218 920792	7413 1535028	33253	99920	311431	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Fluorene	ANT	Ave	2892	10531	43127	119882	325091	0.0100	0.0500	0.200	0.500	1.00

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 225714

SDG No.:

Instrument ID: HP10976 GC Column: Rxi-.5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/21/2022 05:36 Calibration End Date: 02/21/2022 08:48 Calibration ID: 35615

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			1013778	1653216				5.00	10.0			
N-Nitrosodiphenylamine	PHN	Ave	1785 625231	6566 1013830	28013	82936	216451	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Hexachlorobenzene	PHN	Qua	1308 417626	4700 688804	18615	51898	126469	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Phenanthrene	PHN	Qua1	5742 1554392	18873 2517037	72398	195745	530561	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Anthracene	PHN	Ave	3969 1544554	14691 2529959	64624	180572	513679	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Di-n-butyl phthalate	PHN	Ave	3262 1446292	9920 2407118	46243	153664	521928	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Fluoranthene	PHN	Ave	5554 1995399	20533 3249054	84814	239081	667889	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Pyrene	CRY	Qua1	6093 2050052	20944 3390362	89046	248854	704592	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Butylbenzylphthalate	CRY	Ave	922 625591	2968 1070561	14768	53433	181649	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Bis(2-ethylhexyl) phthalate	CRY	Lin1	1251 896300	3819 1521672	19917	74420	265254	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Benzo[a]anthracene	CRY	Lin2	6231 1913683	18394 3253672	74726	215282	628467	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Chrysene	CRY	Qua1	6394 2042920	20925 3326500	88497	240470	666451	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Di-n-octyl phthalate	PRY	Lin1	1466 1477662	5622 2548667	29484	109169	422897	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Benzo[b]fluoranthene	PRY	Ave	4815 1813439	16449 3233507	70909	202465	608148	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Benzo[k]fluoranthene	PRY	Ave	5163 2041610	18237 3212380	77402	223799	610612	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Benzo[e]pyrene	PRY	Ave	4960 1849681	17346 3095578	72493	204928	586129	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Benzo[a]pyrene	PRY	Ave	4059 1815912	14926 2999416	68938	199793	570690	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Perylene	PRY	Qua1	5260 1843363	18370 3013630	77838	223903	610818	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	4636	17199	74281	211572	569518	0.0100	0.0500	0.200	0.500	1.00

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 225714

SDG No.:

Instrument ID: HP10976 GC Column: Rxi-.5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/21/2022 05:36 Calibration End Date: 02/21/2022 08:48 Calibration ID: 35615

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			1929084	3296619				5.00	10.0			
Dibenz(a,h)anthracene	PRY	Ave	3956 1691287	14568 2902901	65167	183353	484884	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Benzo[g,h,i]perylene	PRY	Ave	4794 1779548	16428 2997076	70193	202903	516527	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
1-Methylnaphthalene-d10 (Surr)	NPT	Qua1	2217 667730	7694 1076927	30219	81219	206434	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Fluoranthene-d10 (Surr)	PHN	Ave	5277 1821537	18297 3015239	76979	217376	613735	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00
Benzo(a)pyrene-d12 (Surr)	PRY	Ave	3022 1476880	10933 2494628	51093	150680	422110	0.0100 5.00	0.0500 10.0	0.200	0.500	1.00

Curve Type Legend
Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD
Qua1 = Quadratic 1/conc ISTD

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 225714

SDG No.:

Instrument ID: HP10976 GC Column: Rxi-.5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/21/2022 05:36 Calibration End Date: 02/21/2022 08:48 Calibration ID: 35615

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-225714/8	IB0707.D
Level 2	IC 410-225714/7	IB0706.D
Level 3	IC 410-225714/6	IB0705.D
Level 4	IC 410-225714/5	IB0704.D
Level 5	ICIS 410-225714/2	IB0701.D
Level 6	IC 410-225714/4	IB0703.D
Level 7	IC 410-225714/3	IB0702.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
1,4-Dioxane	-10.6 -0.4	6.0	7.8	1.6	-5.8	1.3	50 30	30	30	30	30	30
N-Nitrosodimethylamine	-36.0 -5.6	6.8	9.4	7.6	9.8	8.2	50 30	30	30	30	30	30
Bis(2-chloroethyl)ether	-11.3 -0.5	9.0	6.5	-0.2	-5.2	1.6	50 30	30	30	30	30	30
Naphthalene	-42.3 0.0	2.7	5.0	0.7	-1.3	0.1	50 30	30	30	30	30	30
2-Methylnaphthalene	38.5 0.0	11.8	4.0	1.3	-3.3	0.3	50 30	30	30	30	30	30
1-Methylnaphthalene	-6.9 -0.4	5.8	2.7	2.1	-4.5	1.2	50 30	30	30	30	30	30
Acenaphthene	-34.6 0.0	3.6	7.6	-0.1	-1.8	0.1	50 30	30	30	30	30	30
Dibenzofuran	-15.6 0.8	9.7	4.3	0.5	2.3	-1.9	50 30	30	30	30	30	30
Hexachlorobenzene	35.7 -0.1	18.1	10.2	6.5	-8.6	0.6	50 30	30	30	30	30	30
Phenanthrene	-16.5 0.5	8.3	7.3	2.6	-0.9	-1.2	50 30	30	30	30	30	30
Pyrene	-12.2 1.2	2.3	6.0	2.4	3.6	-3.0	50 30	30	30	30	30	30
Bis(2-ethylhexyl) phthalate	42.6 -4.8	-27.4	-25.1	-7.9	13.9	8.7	50 30	30	30	30	30	30
Benzo[a]anthracene	-1.5 -17.4	4.9	6.1	5.4	8.4	-5.9	50 30	30	30	30	30	30
Chrysene	-10.7 0.4	3.0	7.4	1.0	0.0	-1.1	50 30	30	30	30	30	30

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 225714

SDG No.:

Instrument ID: HP10976 GC Column: Rxi-.5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/21/2022 05:36 Calibration End Date: 02/21/2022 08:48 Calibration ID: 35615

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Di-n-octyl phthalate	47.1 -3.0	-25.9	-27.8	-13.6	18.2	5.0	50 30	30	30	30	30	30
Perylene	-21.6 2.6	3.2	8.0	7.4	7.2	-6.2	50 30	30	30	30	30	30
1-Methylnaphthalene-d10 (Surr)	-5.4 -0.6	5.1	3.1	1.4	-5.5	1.8	50 30	30	30	30	30	30

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0701.D
Lims ID: ICIS L5
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 21-Feb-2022 05:36:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS L5
Misc. Info.: 410-0050767-002
Operator ID: jmg00346 Instrument ID: HP10976
Sublist: chrom-8270_SIM_HP10976*sub3

Method: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\8270_SIM_HP10976.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 21-Feb-2022 09:33:38 Calib Date: 21-Feb-2022 08:48:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D

Column 1 : Rxi-.5SilMS 30m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1679

First Level Reviewer: gamblerj Date: 21-Feb-2022 06:06:02

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 1,4-Dioxane	88	3.933	3.933	0.000	89	69159	1.00	0.9417	a
	2 N-Nitrosodimethylamine	74	4.510	4.510	0.000	93	86409	1.00	1.10	a
	3 Bis(2-chloroethyl)ether	93	7.636	7.636	0.000	68	199199	1.00	0.9483	
*	4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	100	119588	1.00	1.00	
*	5 Naphthalene-d8	136	9.559	9.559	0.000	97	378792	1.00	1.00	
	6 Naphthalene	128	9.585	9.585	0.000	98	428455	1.00	0.9865	
	7 Quinoline	129	9.997	9.997	0.000	0	279540	1.00	0.99	
	8 2-Methylnaphthalene	142	10.431	10.431	0.000	93	277450	1.00	0.9667	
$	9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	100	206434	1.00	0.9454	
	10 1-Methylnaphthalene	142	10.561	10.561	0.000	94	264329	1.00	0.9548	
	11 Dimethyl phthalate	163	11.354	11.354	0.000	100	328888	1.00	1.06	
	12 Acenaphthylene	152	11.572	11.572	0.000	100	412276	1.00	1.09	
*	13 Acenaphthene-d10	164	11.745	11.745	0.000	98	243663	1.00	1.00	
	14 Acenaphthene	154	11.789	11.789	0.000	97	252894	1.00	0.9825	
	15 Dibenzofuran	168	11.997	11.997	0.000	99	460518	1.00	1.02	
	16 Diethyl phthalate	149	12.222	12.222	0.000	99	311431	1.00	1.16	
	17 Fluorene	166	12.424	12.424	0.000	99	325091	1.00	1.00	
	18 N-Nitrosodiphenylamine	169	12.548	12.548	0.000	99	216451	1.00	0.9777	
	19 Hexachlorobenzene	284	13.132	13.132	0.000	97	126469	1.00	0.9143	
*	20 Phenanthrene-d10	188	13.605	13.605	0.000	99	488638	1.00	1.00	
	21 Phenanthrene	178	13.638	13.638	0.000	100	530561	1.00	0.99	
	22 Anthracene	178	13.706	13.706	0.000	100	513679	1.00	1.00	
	23 Di-n-butyl phthalate	149	14.262	14.262	0.000	100	521928	1.00	1.21	
$	24 Fluoranthene-d10 (Surr)	212	15.104	15.104	0.000	100	613735	1.00	0.9806	
	25 Fluoranthene	202	15.128	15.128	0.000	100	667889	1.00	0.9790	
	26 Pyrene	202	15.421	15.421	0.000	100	704592	1.00	1.04	
	27 Butyl benzyl phthalate	149	16.140	16.140	0.000	100	181649	1.00	1.21	
	28 Bis(2-ethylhexyl) phthalate	149	16.828	16.828	0.000	97	265254	1.00	1.14	
	29 Benzo[a]anthracene	228	16.907	16.907	0.000	100	628467	1.00	1.08	
*	30 Chrysene-d12	240	16.922	16.922	0.000	98	461262	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Chrysene	228	16.954	16.954	0.000	100	666451	1.00	1.00	
32 Di-n-octyl phthalate	149	17.689	17.689	0.000	100	422897	1.00	1.18	
33 Benzo[b]fluoranthene	252	18.463	18.463	0.000	100	608148	1.00	1.06	
34 Benzo[k]fluoranthene	252	18.502	18.502	0.000	100	610612	1.00	0.99	
35 Benzo[e]pyrene	252	18.924	18.924	0.000	100	586129	1.00	1.01	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.971	18.971	0.000	100	422110	1.00	1.03	
37 Benzo[a]pyrene	252	19.010	19.010	0.000	100	570690	1.00	1.06	
* 36 Perylene-d12	264	19.112	19.112	0.000	100	433966	1.00	1.00	
39 Perylene	252	19.151	19.151	0.000	100	610818	1.00	1.07	
40 Indeno[1,2,3-cd]pyrene	276	21.098	21.098	0.000	96	569518	1.00	0.9785	
41 Dibenz(a,h)anthracene	278	21.105	21.105	0.000	99	484884	1.00	0.9648	
42 Benzo[g,h,i]perylene	276	21.677	21.677	0.000	100	516527	1.00	0.9319	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

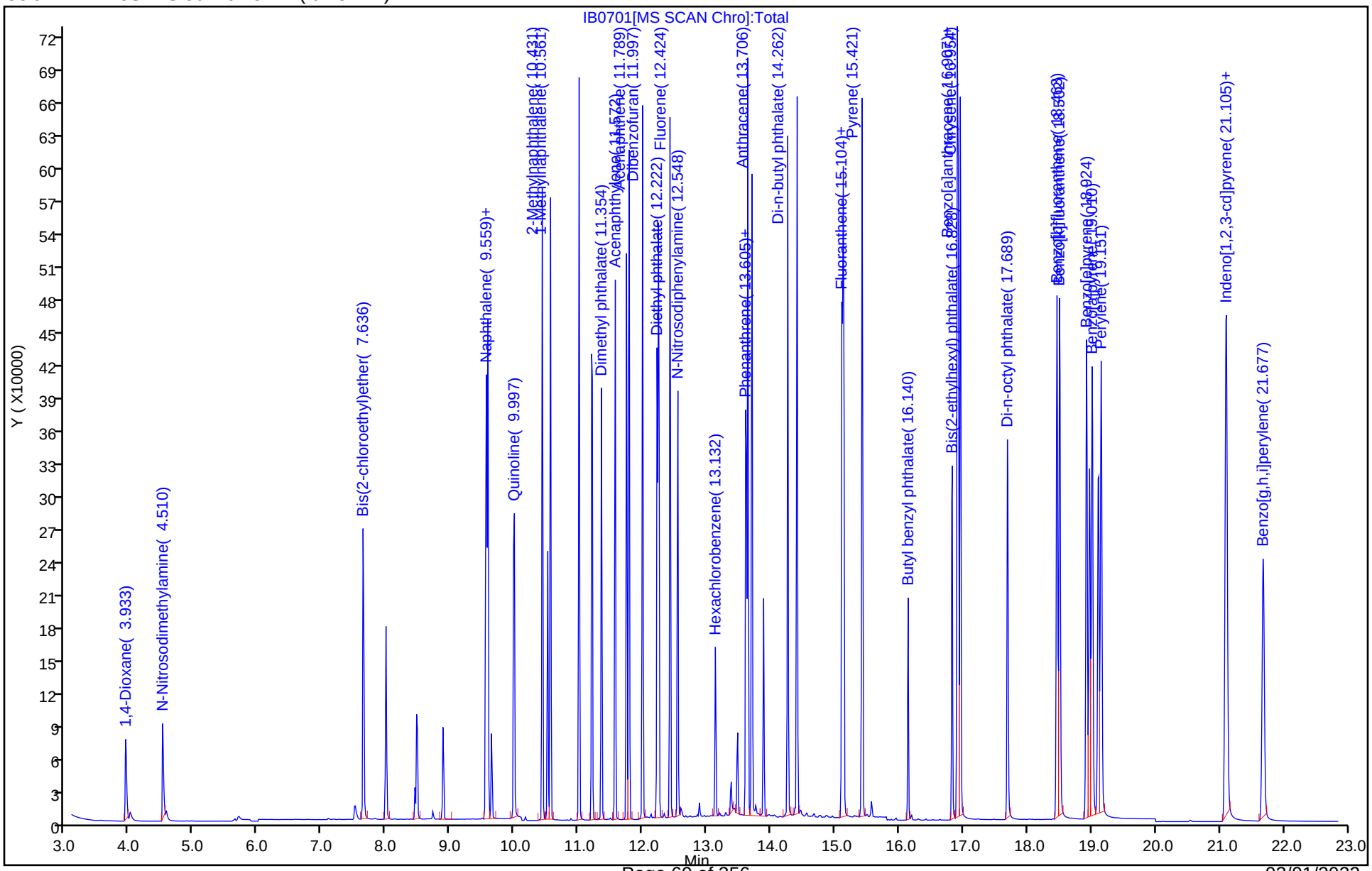
MSS_FVSIM_5_00013 Amount Added: 1.00 Units: mL

Report Date: 21-Feb-2022 09:33:39 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0701.D				
Injection Date:	21-Feb-2022 05:36:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	ICIS L5			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Resolution Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0701.D				
Injection Date:	21-Feb-2022 05:36:30	Instrument ID:	HP10976		
Lims ID:	ICIS L5				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

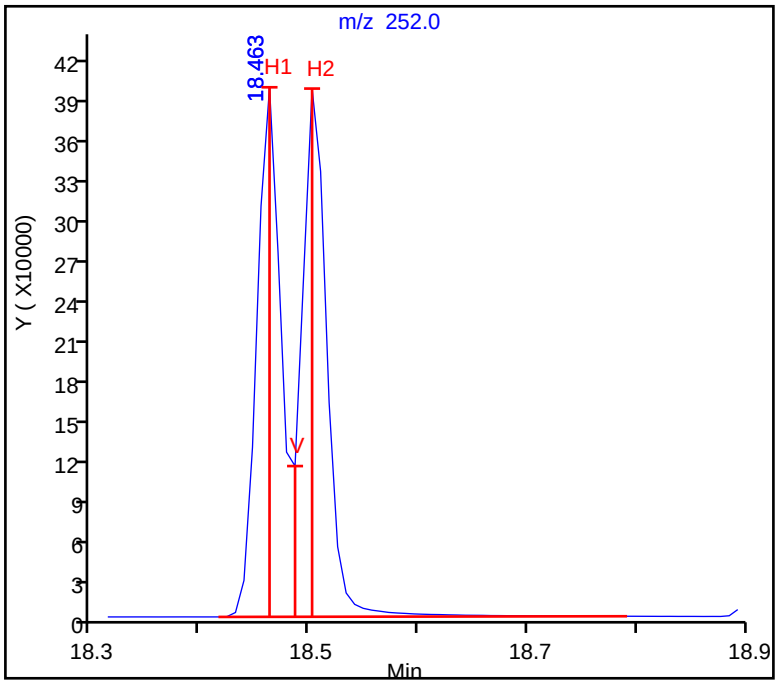
33 Benzo[b]fluoranthene - 34 Benzo[k]fluoranthene

SW-846 Method

Version D: %R = (V / ((H1 + H2)/2)) * 100

V (Valley Height) = 111306
H1(33 Benzo[b]fluoranthen) = 391058
H2(34 Benzo[k]fluoranthen) = 390045

Version D: %R = 28.5 <= 50.0
Passed



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

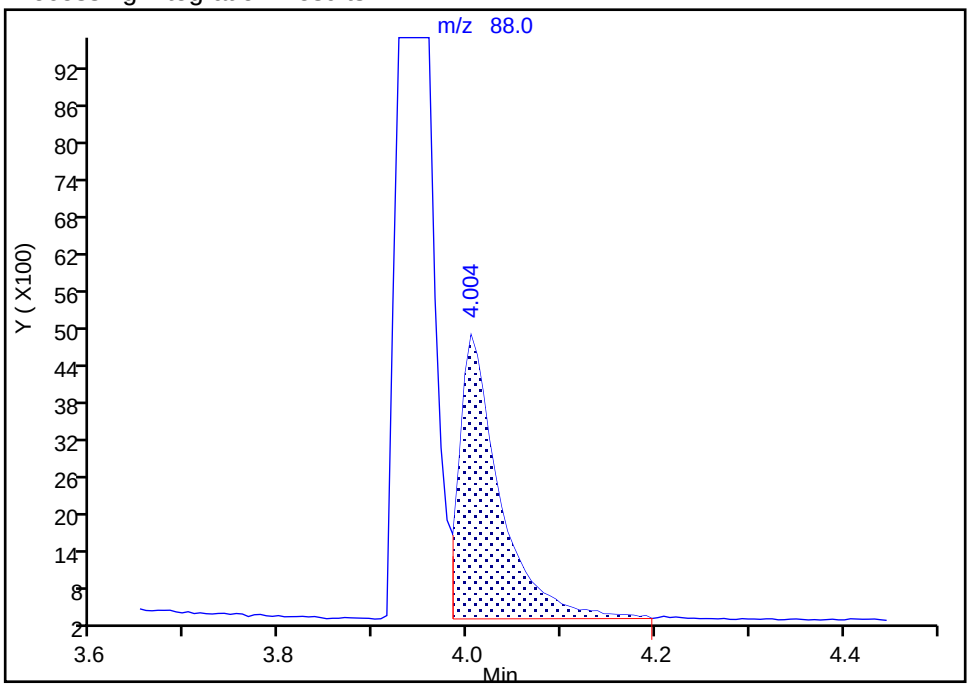
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0701.D				
Injection Date:	21-Feb-2022 05:36:30	Instrument ID:	HP10976		
Lims ID:	ICIS L5				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

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

Signal: 1

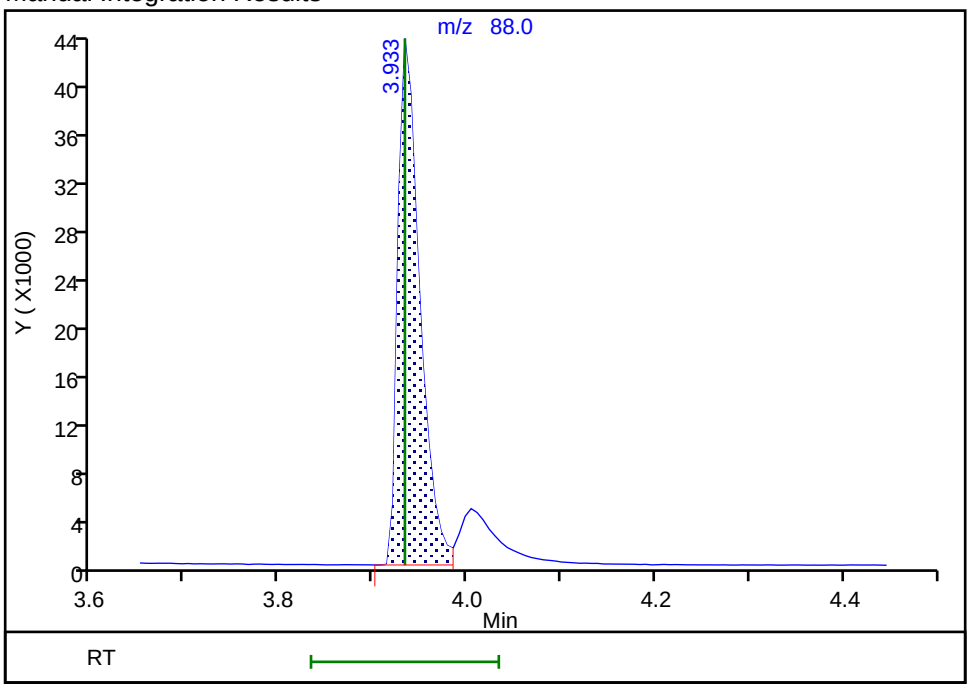
Processing Integration Results

RT: 4.00
Area: 13402
Amount: 1.000000
Amount Units: ug/ml



Manual Integration Results

RT: 3.93
Area: 69159
Amount: 0.941659
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 06:05:02

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

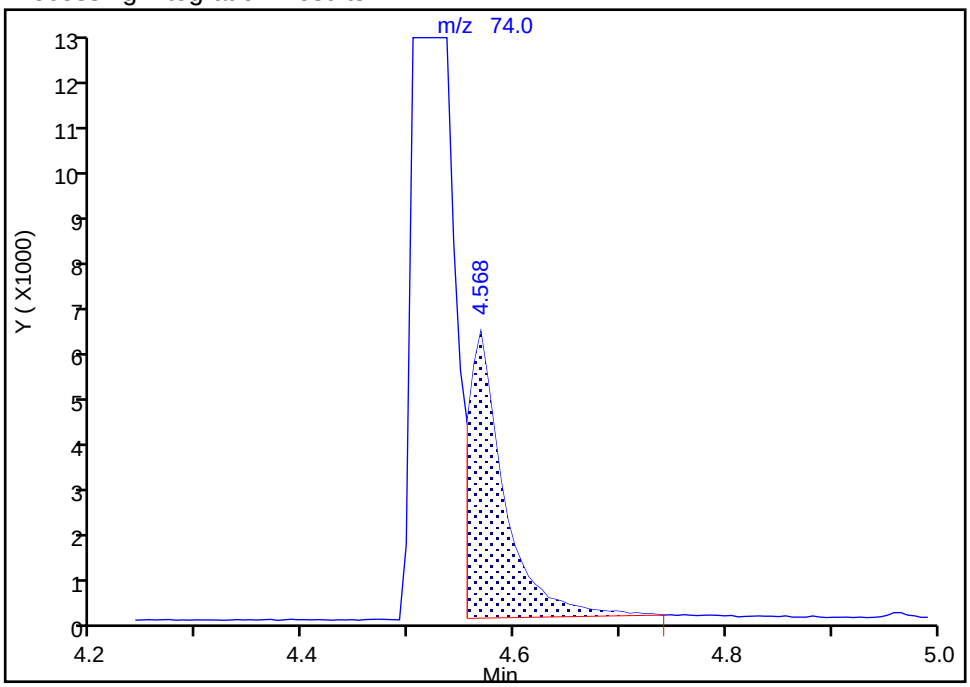
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0701.D				
Injection Date:	21-Feb-2022 05:36:30	Instrument ID:	HP10976		
Lims ID:	ICIS L5				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

2 N-Nitrosodimethylamine, CAS: 62-75-9

Signal: 1

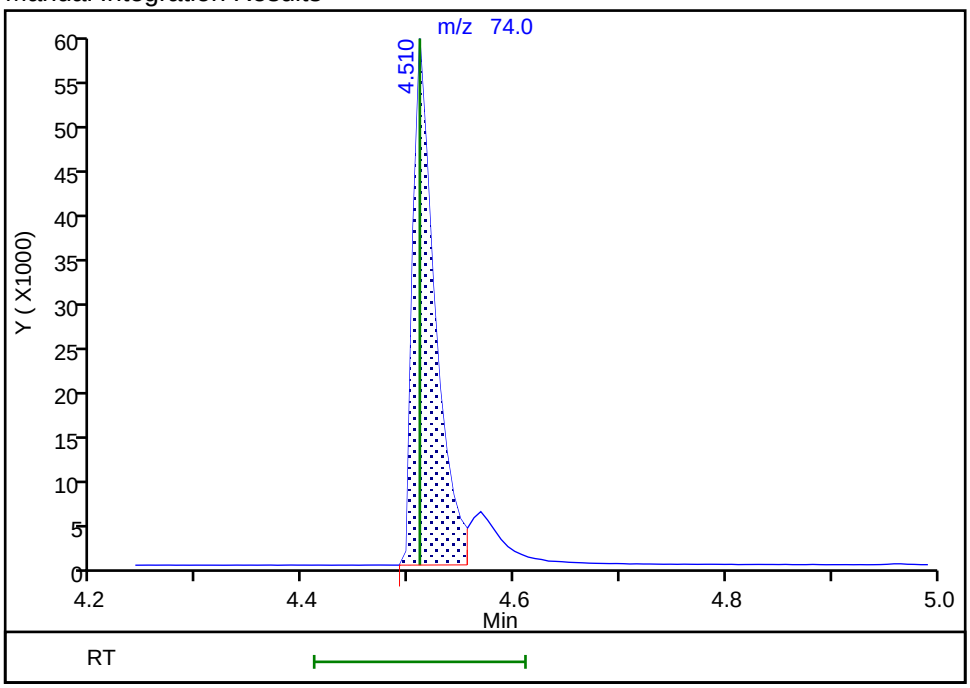
Processing Integration Results

RT: 4.57
Area: 13310
Amount: 1.000000
Amount Units: ug/ml



Manual Integration Results

RT: 4.51
Area: 86409
Amount: 1.097569
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 06:05:08

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0702.D
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 21-Feb-2022 06:08:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L7
Misc. Info.: 410-0050767-003
Operator ID: jmg00346 Instrument ID: HP10976
Sublist: chrom-8270_SIM_HP10976*sub3

Method: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\8270_SIM_HP10976.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 21-Feb-2022 09:33:41 Calib Date: 21-Feb-2022 08:48:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D

Column 1 : Rxi-.5SilMS 30m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1679

First Level Reviewer: gamblerj Date: 21-Feb-2022 07:25:02

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 1,4-Dioxane	88	3.914	3.933	-0.019	88	410185	10.0	9.96	
	2 N-Nitrosodimethylamine	74	4.491	4.510	-0.019	93	522931	10.0	9.44	
	3 Bis(2-chloroethyl)ether	93	7.636	7.636	0.000	70	1051618	10.0	9.95	
*	4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	98	84948	1.00	1.00	
*	5 Naphthalene-d8	136	9.559	9.559	0.000	98	250840	1.00	1.00	
	6 Naphthalene	128	9.586	9.585	0.001	99	1996683	10.0	10.0	
	7 Quinoline	129	9.997	9.997	0.000	0	1479264	10.0	7.93	
	8 2-Methylnaphthalene	142	10.431	10.431	0.000	92	1395657	10.0	10.0	
$	9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	99	1076927	10.0	9.94	
	10 1-Methylnaphthalene	142	10.561	10.561	0.000	94	1352088	10.0	9.96	
	11 Dimethyl phthalate	163	11.354	11.354	0.000	97	1684682	10.0	7.77	
	12 Acenaphthylene	152	11.572	11.572	0.000	98	2079325	10.0	7.87	
*	13 Acenaphthene-d10	164	11.746	11.745	0.001	100	169852	1.00	1.00	
	14 Acenaphthene	154	11.789	11.789	0.000	97	1303704	10.0	10.0	
	15 Dibenzofuran	168	11.997	11.997	0.000	98	2221896	10.0	10.1	
	16 Diethyl phthalate	149	12.222	12.222	0.000	98	1535028	10.0	8.20	
	17 Fluorene	166	12.424	12.424	0.000	98	1653216	10.0	7.32	
	18 N-Nitrosodiphenylamine	169	12.548	12.548	0.000	100	1013830	10.0	7.04	
	19 Hexachlorobenzene	284	13.144	13.132	0.012	89	688804	10.0	10.0	
*	20 Phenanthrene-d10	188	13.616	13.605	0.011	100	318026	1.00	1.00	
	21 Phenanthrene	178	13.638	13.638	0.000	99	2517037	10.0	10.1	
	22 Anthracene	178	13.706	13.706	0.000	99	2529959	10.0	7.60	
	23 Di-n-butyl phthalate	149	14.262	14.262	0.000	100	2407118	10.0	8.56	
$	24 Fluoranthene-d10 (Surr)	212	15.116	15.104	0.012	100	3015239	10.0	7.40	
	25 Fluoranthene	202	15.141	15.128	0.013	99	3249054	10.0	7.32	
	26 Pyrene	202	15.421	15.421	0.000	99	3390362	10.0	10.1	
	27 Butyl benzyl phthalate	149	16.140	16.140	0.000	100	1070561	10.0	10.4	
	28 Bis(2-ethylhexyl) phthalate	149	16.829	16.828	0.001	96	1521672	10.0	9.52	
	29 Benzo[a]anthracene	228	16.915	16.907	0.008	99	3253672	10.0	8.26	
*	30 Chrysene-d12	240	16.930	16.922	0.008	88	315116	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Chrysene	228	16.961	16.954	0.007	99	3326500	10.0	10.0	
32 Di-n-octyl phthalate	149	17.697	17.689	0.008	100	2548667	10.0	9.70	
33 Benzo[b]fluoranthene	252	18.471	18.463	0.008	99	3233507	10.0	7.71	
34 Benzo[k]fluoranthene	252	18.510	18.502	0.008	99	3212380	10.0	7.14	
35 Benzo[e]pyrene	252	18.932	18.924	0.008	99	3095578	10.0	7.30	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.979	18.971	0.008	100	2494628	10.0	8.37	
37 Benzo[a]pyrene	252	19.026	19.010	0.016	99	2999416	10.0	7.66	
* 36 Perylene-d12	264	19.112	19.112	0.000	99	316817	1.00	1.00	
39 Perylene	252	19.159	19.151	0.008	98	3013630	10.0	10.3	
40 Indeno[1,2,3-cd]pyrene	276	21.112	21.098	0.014	98	3296619	10.0	7.76	
41 Dibenz(a,h)anthracene	278	21.120	21.105	0.015	95	2902901	10.0	7.91	
42 Benzo[g,h,i]perylene	276	21.699	21.677	0.022	100	2997076	10.0	7.41	
S 43 Total PAH	1				0			171.7	

QC Flag Legend

Processing Flags

Reagents:

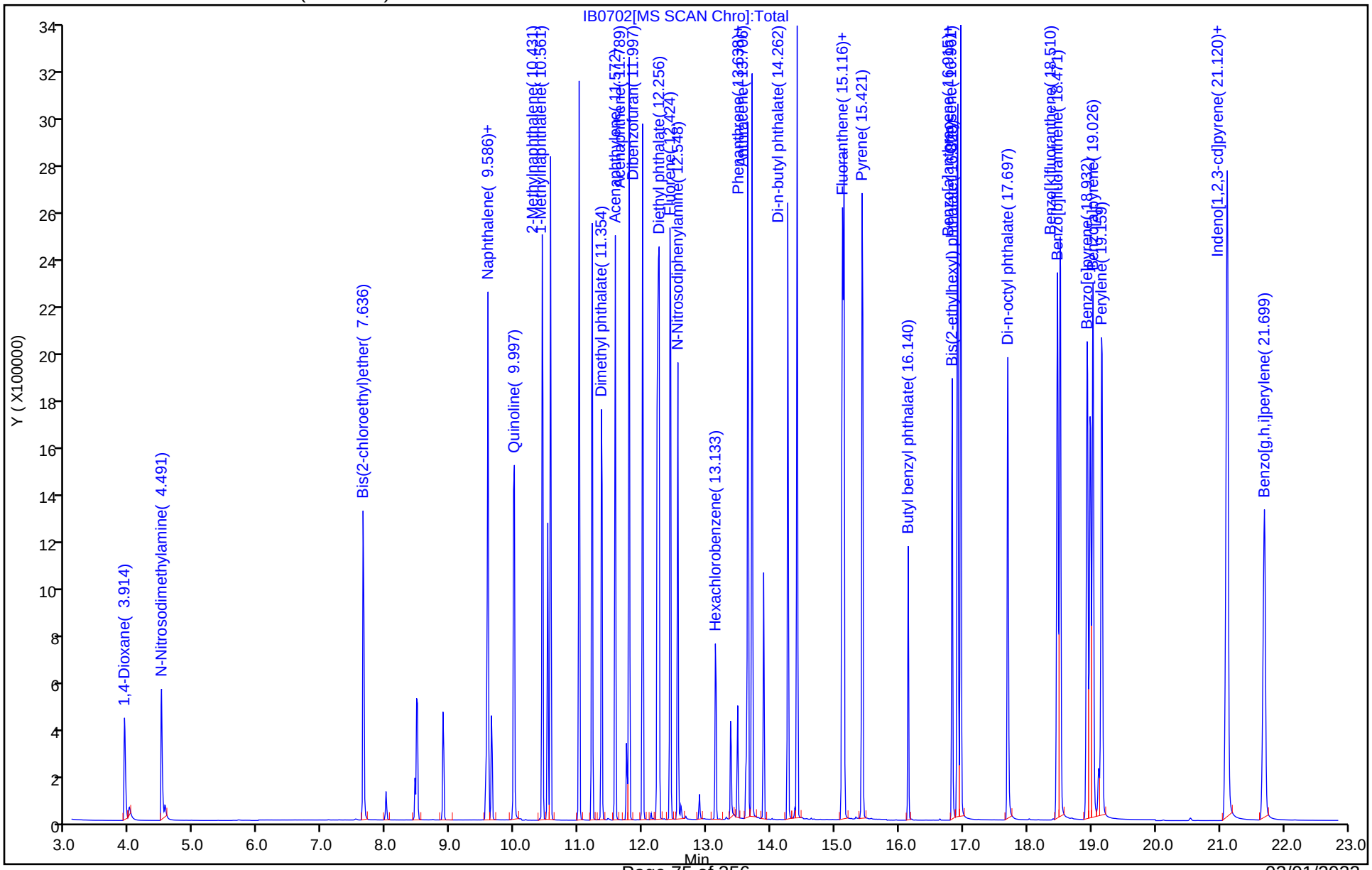
MSS_FVSIM_7_00009 Amount Added: 1.00 Units: mL

Report Date: 21-Feb-2022 09:33:41 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0702.D				
Injection Date:	21-Feb-2022 06:08:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	IC L7			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0703.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 21-Feb-2022 06:39:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L6
Misc. Info.: 410-0050767-004
Operator ID: jmg00346 Instrument ID: HP10976
Sublist: chrom-8270_SIM_HP10976*sub3

Method: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\8270_SIM_HP10976.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 21-Feb-2022 09:33:43 Calib Date: 21-Feb-2022 08:48:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D

Column 1 : Rxi-.5SilMS 30m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1679

First Level Reviewer: gamblerj Date: 21-Feb-2022 07:25:29

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 1,4-Dioxane	88	3.921	3.933	-0.012	89	247810	5.00	5.07	
	2 N-Nitrosodimethylamine	74	4.498	4.510	-0.012	93	312043	5.00	5.41	
	3 Bis(2-chloroethyl)ether	93	7.636	7.636	0.000	70	644700	5.00	5.08	
*	4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	98	88383	1.00	1.00	
*	5 Naphthalene-d8	136	9.559	9.559	0.000	97	257949	1.00	1.00	
	6 Naphthalene	128	9.586	9.585	0.001	99	1272204	5.00	5.00	
	7 Quinoline	129	9.997	9.997	0.000	0	920258	5.00	4.80	
	8 2-Methylnaphthalene	142	10.431	10.431	0.000	94	863306	5.00	5.01	
$	9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	99	667730	5.00	5.09	
	10 1-Methylnaphthalene	142	10.562	10.561	0.001	95	839110	5.00	5.06	
	11 Dimethyl phthalate	163	11.355	11.354	0.001	100	1025594	5.00	4.62	
	12 Acenaphthylene	152	11.572	11.572	0.000	99	1278348	5.00	4.72	
*	13 Acenaphthene-d10	164	11.746	11.745	0.001	99	174063	1.00	1.00	
	14 Acenaphthene	154	11.789	11.789	0.000	97	805423	5.00	5.01	
	15 Dibenzofuran	168	11.997	11.997	0.000	99	1371804	5.00	4.90	
	16 Diethyl phthalate	149	12.222	12.222	0.000	99	920792	5.00	4.80	
	17 Fluorene	166	12.425	12.424	0.001	98	1013778	5.00	4.38	
	18 N-Nitrosodiphenylamine	169	12.548	12.548	0.000	100	625231	5.00	4.20	
	19 Hexachlorobenzene	284	13.133	13.132	0.001	100	417626	5.00	5.03	
*	20 Phenanthrene-d10	188	13.616	13.605	0.011	100	328383	1.00	1.00	
	21 Phenanthrene	178	13.639	13.638	0.001	99	1554392	5.00	4.94	
	22 Anthracene	178	13.706	13.706	0.000	100	1544554	5.00	4.50	
	23 Di-n-butyl phthalate	149	14.262	14.262	0.000	100	1446292	5.00	4.98	
$	24 Fluoranthene-d10 (Surr)	212	15.116	15.104	0.012	99	1821537	5.00	4.33	
	25 Fluoranthene	202	15.129	15.128	0.001	99	1995399	5.00	4.35	
	26 Pyrene	202	15.422	15.421	0.001	100	2050052	5.00	4.85	
	27 Butyl benzyl phthalate	149	16.140	16.140	0.000	100	625591	5.00	5.92	
	28 Bis(2-ethylhexyl) phthalate	149	16.829	16.828	0.001	95	896300	5.00	5.44	
	29 Benzo[a]anthracene	228	16.907	16.907	0.000	99	1913683	5.00	4.70	
*	30 Chrysene-d12	240	16.923	16.922	0.000	53	325280	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Chrysene	228	16.962	16.954	0.008	99	2042920	5.00	4.95	
32 Di-n-octyl phthalate	149	17.697	17.689	0.008	100	1477662	5.00	5.25	
33 Benzo[b]fluoranthene	252	18.463	18.463	0.000	100	1813439	5.00	4.04	
34 Benzo[k]fluoranthene	252	18.510	18.502	0.008	99	2041610	5.00	4.24	
35 Benzo[e]pyrene	252	18.932	18.924	0.008	99	1849681	5.00	4.07	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.979	18.971	0.008	100	1476880	5.00	4.62	
37 Benzo[a]pyrene	252	19.018	19.010	0.008	100	1815912	5.00	4.33	
* 36 Perylene-d12	264	19.112	19.112	0.000	99	339477	1.00	1.00	
39 Perylene	252	19.159	19.151	0.008	98	1843363	5.00	4.69	
40 Indeno[1,2,3-cd]pyrene	276	21.106	21.098	0.008	98	1929084	5.00	4.24	
41 Dibenz(a,h)anthracene	278	21.120	21.105	0.015	88	1691287	5.00	4.30	
42 Benzo[g,h,i]perylene	276	21.692	21.677	0.015	100	1779548	5.00	4.10	
S 43 Total PAH	1				0			91.5	

QC Flag Legend

Processing Flags

Reagents:

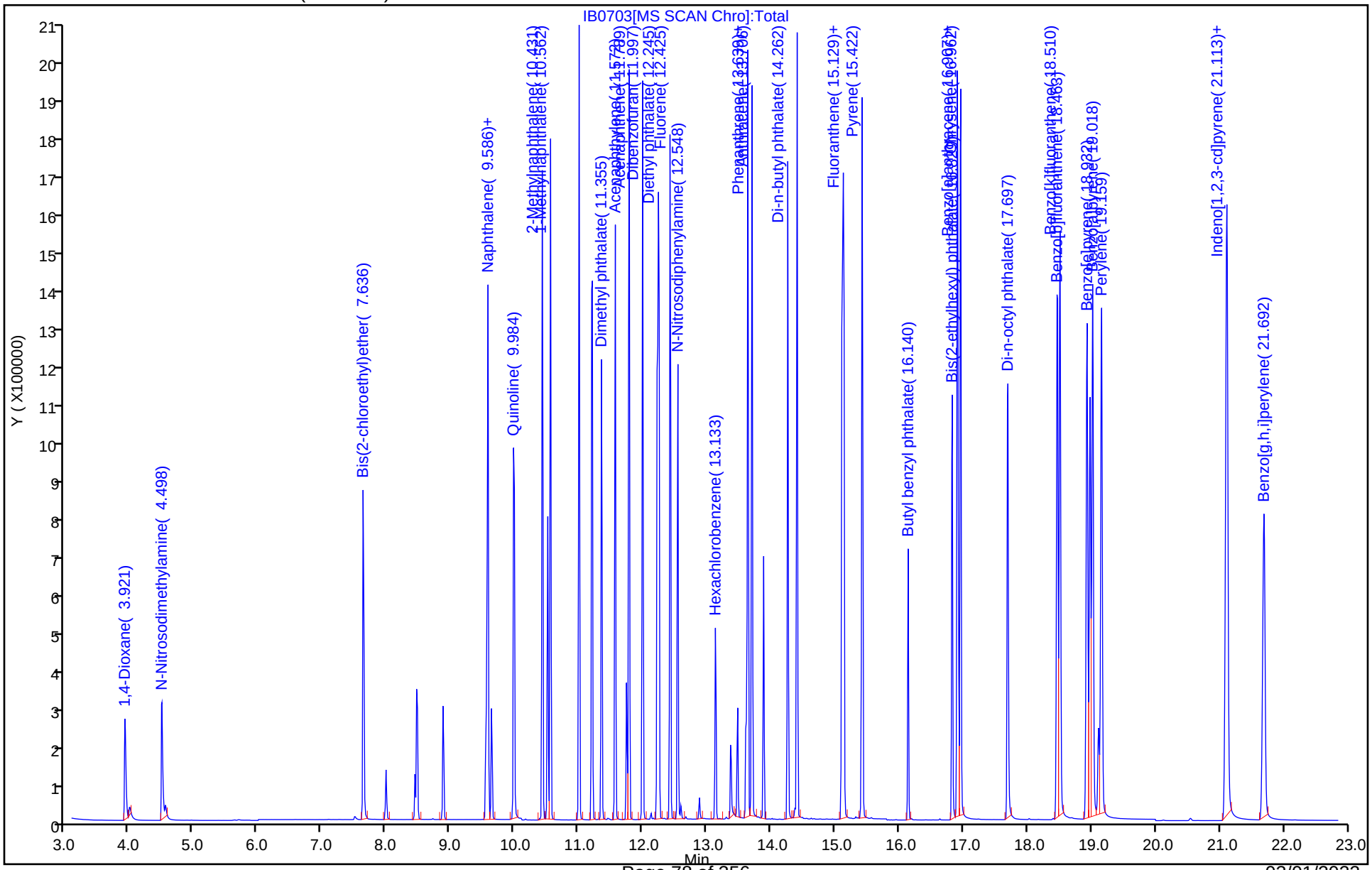
MSS_FVSIM_6_00011 Amount Added: 1.00 Units: mL

Report Date: 21-Feb-2022 09:33:43 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0703.D				
Injection Date:	21-Feb-2022 06:39:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	IC L6			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0704.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 21-Feb-2022 07:15:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L4
Misc. Info.: 410-0050767-005
Operator ID: jmg00346 Instrument ID: HP10976
Sublist: chrom-8270_SIM_HP10976*sub3

Method: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\8270_SIM_HP10976.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 21-Feb-2022 09:33:46 Calib Date: 21-Feb-2022 08:48:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D

Column 1 : Rxi-.5SilMS 30m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1679

First Level Reviewer: gamblerj Date: 21-Feb-2022 08:33:07

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 1,4-Dioxane	88	3.933	3.933	0.000	92	29948	0.5000	0.5081	
	2 N-Nitrosodimethylamine	74	4.517	4.510	0.007	93	33844	0.5000	0.5379	
	3 Bis(2-chloroethyl)ether	93	7.649	7.636	0.013	95	76978	0.5000	0.4991	
*	4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	98	94539	1.00	1.00	
*	5 Naphthalene-d8	136	9.559	9.559	0.000	98	273489	1.00	1.00	
	6 Naphthalene	128	9.586	9.585	0.001	99	161921	0.5000	0.5033	
	7 Quinoline	129	9.997	9.997	0.000	0	106886	0.5000	0.5253	
	8 2-Methylnaphthalene	142	10.431	10.431	0.000	91	106389	0.5000	0.5066	
$	9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	99	81219	0.5000	0.5070	
	10 1-Methylnaphthalene	142	10.562	10.561	0.001	95	103798	0.5000	0.5107	
	11 Dimethyl phthalate	163	11.355	11.354	0.001	99	116929	0.5000	0.5055	
	12 Acenaphthylene	152	11.572	11.572	0.000	99	140616	0.5000	0.4988	
*	13 Acenaphthene-d10	164	11.746	11.745	0.001	99	181221	1.00	1.00	
	14 Acenaphthene	154	11.789	11.789	0.000	99	97690	0.5000	0.4993	
	15 Dibenzofuran	168	11.997	11.997	0.000	98	172110	0.5000	0.5027	
	16 Diethyl phthalate	149	12.222	12.222	0.000	98	99920	0.5000	0.5003	
	17 Fluorene	166	12.425	12.424	0.001	100	119882	0.5000	0.4978	
	18 N-Nitrosodiphenylamine	169	12.548	12.548	0.000	100	82936	0.5000	0.5375	
	19 Hexachlorobenzene	284	13.133	13.132	0.001	100	51898	0.5000	0.5327	
*	20 Phenanthrene-d10	188	13.616	13.605	0.011	100	340548	1.00	1.00	
	21 Phenanthrene	178	13.639	13.638	0.001	100	195745	0.5000	0.5129	
	22 Anthracene	178	13.706	13.706	0.000	99	180572	0.5000	0.5068	
	23 Di-n-butyl phthalate	149	14.262	14.262	0.000	100	153664	0.5000	0.5105	
$	24 Fluoranthene-d10 (Surr)	212	15.116	15.104	0.012	99	217376	0.5000	0.4983	
	25 Fluoranthene	202	15.129	15.128	0.001	99	239081	0.5000	0.5029	
	26 Pyrene	202	15.422	15.421	0.001	99	248854	0.5000	0.5120	
	27 Butyl benzyl phthalate	149	16.140	16.140	0.000	100	53433	0.5000	0.5092	
	28 Bis(2-ethylhexyl) phthalate	149	16.829	16.828	0.001	96	74420	0.5000	0.4603	
	29 Benzo[a]anthracene	228	16.907	16.907	0.000	99	215282	0.5000	0.5269	
*	30 Chrysene-d12	240	16.923	16.922	0.000	96	322772	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Chrysene	228	16.954	16.954	0.000	100	240470	0.5000	0.5051	
32 Di-n-octyl phthalate	149	17.697	17.689	0.008	100	109169	0.5000	0.4321	
33 Benzo[b]fluoranthene	252	18.463	18.463	0.000	100	202465	0.5000	0.4928	
34 Benzo[k]fluoranthene	252	18.510	18.502	0.008	99	223799	0.5000	0.5080	
35 Benzo[e]pyrene	252	18.924	18.924	0.000	100	204928	0.5000	0.4934	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.971	18.971	0.000	99	150680	0.5000	0.5161	
37 Benzo[a]pyrene	252	19.010	19.010	0.000	100	199793	0.5000	0.5208	
* 36 Perylene-d12	264	19.112	19.112	0.000	99	310359	1.00	1.00	
39 Perylene	252	19.151	19.151	0.000	99	223903	0.5000	0.5371	
40 Indeno[1,2,3-cd]pyrene	276	21.099	21.098	0.000	92	211572	0.5000	0.5083	
41 Dibenz(a,h)anthracene	278	21.113	21.105	0.008	94	183353	0.5000	0.5101	
42 Benzo[g,h,i]perylene	276	21.685	21.677	0.008	100	202903	0.5000	0.5119	
S 43 Total PAH	1				0			10.2	

QC Flag Legend

Processing Flags

Reagents:

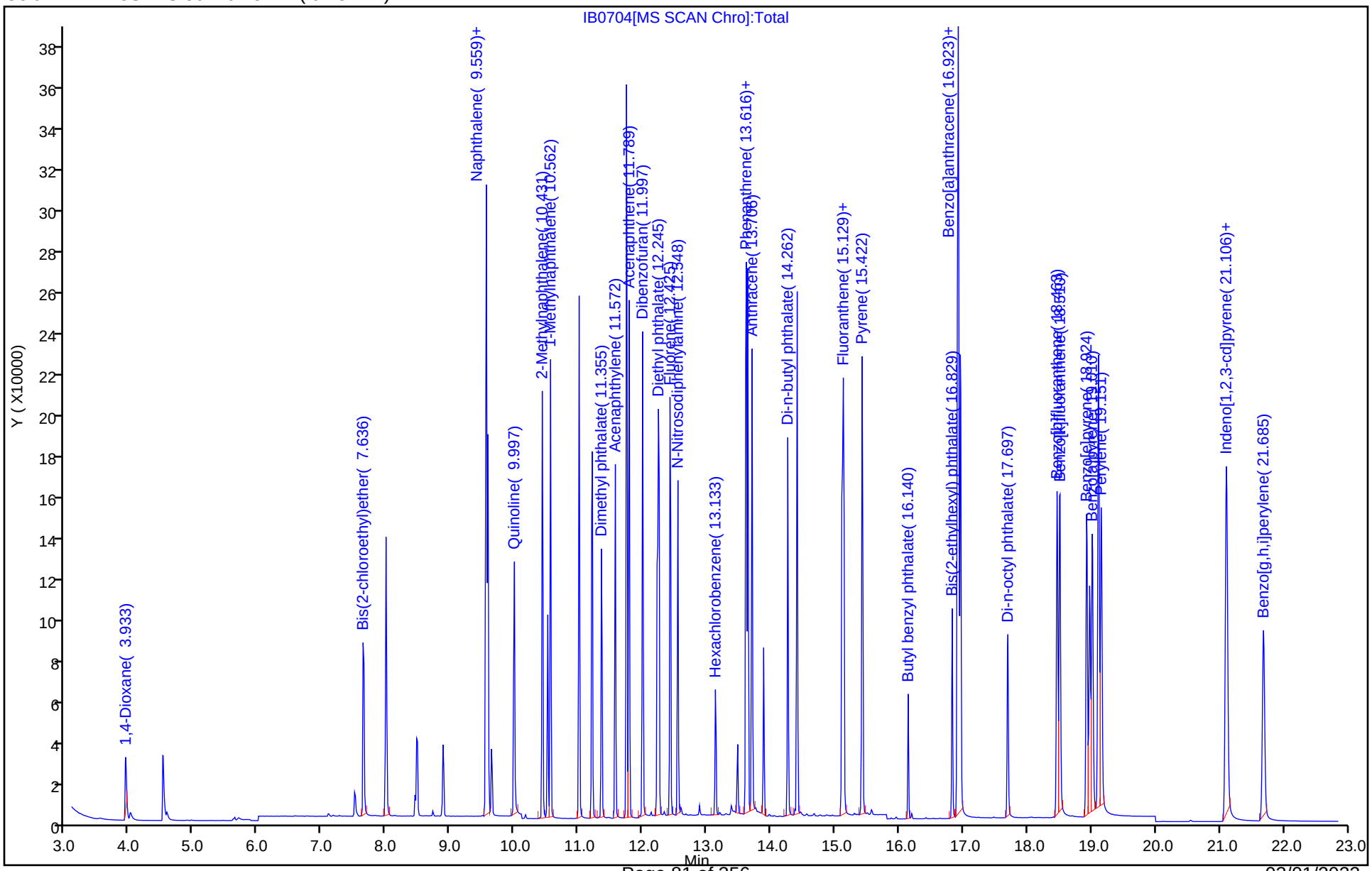
MSS_FVSIM_4_00013 Amount Added: 1.00 Units: mL

Report Date: 21-Feb-2022 09:33:46 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0704.D				
Injection Date:	21-Feb-2022 07:15:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	IC L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0705.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 21-Feb-2022 07:46:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L3
Misc. Info.: 410-0050767-006
Operator ID: jmg00346 Instrument ID: HP10976
Sublist: chrom-8270_SIM_HP10976*sub3

Method: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\8270_SIM_HP10976.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 21-Feb-2022 10:02:14 Calib Date: 21-Feb-2022 08:48:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D

Column 1 : Rxi-.5SilMS 30m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1679

First Level Reviewer: gamblerj Date: 21-Feb-2022 10:02:14

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 1,4-Dioxane	88	3.946	3.959	-0.013	92	11716	0.2000	0.2156	
	2 N-Nitrosodimethylamine	74	4.530	4.555	-0.025	92	12803	0.2000	0.2188	
	3 Bis(2-chloroethyl)ether	93	7.649	7.649	0.000	93	30098	0.2000	0.2131	
*	4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	99	85323	1.00	1.00	
*	5 Naphthalene-d8	136	9.559	9.559	0.000	98	245145	1.00	1.00	
	6 Naphthalene	128	9.586	9.586	0.000	99	62833	0.2000	0.2100	
	7 Quinoline	129	9.997	9.997	0.000	0	38972	0.2000	0.2137	
	8 2-Methylnaphthalene	142	10.431	10.431	0.000	94	39499	0.2000	0.2081	
$	9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	99	30219	0.2000	0.2062	
	10 1-Methylnaphthalene	142	10.561	10.561	0.000	95	38224	0.2000	0.2053	
	11 Dimethyl phthalate	163	11.354	11.354	0.000	99	40474	0.2000	0.2004	
	12 Acenaphthylene	152	11.572	11.572	0.000	98	48294	0.2000	0.1962	
*	13 Acenaphthene-d10	164	11.746	11.745	0.001	99	158216	1.00	1.00	
	14 Acenaphthene	154	11.789	11.789	0.000	97	37795	0.2000	0.2152	
	15 Dibenzofuran	168	11.997	11.997	0.000	100	63913	0.2000	0.2086	
	16 Diethyl phthalate	149	12.222	12.222	0.000	99	33253	0.2000	0.1907	
	17 Fluorene	166	12.424	12.424	0.000	99	43127	0.2000	0.2051	
	18 N-Nitrosodiphenylamine	169	12.548	12.548	0.000	99	28013	0.2000	0.2118	
	19 Hexachlorobenzene	284	13.133	13.133	0.001	99	18615	0.2000	0.2205	
*	20 Phenanthrene-d10	188	13.616	13.616	0.000	100	291971	1.00	1.00	
	21 Phenanthrene	178	13.638	13.638	0.000	100	72398	0.2000	0.2146	
	22 Anthracene	178	13.706	13.706	0.000	100	64624	0.2000	0.2116	
	23 Di-n-butyl phthalate	149	14.262	14.262	0.000	100	46243	0.2000	0.1792	
$	24 Fluoranthene-d10 (Surr)	212	15.116	15.116	0.000	100	76979	0.2000	0.2058	
	25 Fluoranthene	202	15.128	15.128	0.000	99	84814	0.2000	0.2081	
	26 Pyrene	202	15.421	15.421	0.000	99	89046	0.2000	0.2119	
	27 Butyl benzyl phthalate	149	16.140	16.140	0.000	100	14768	0.2000	0.1665	
	28 Bis(2-ethylhexyl) phthalate	149	16.829	16.828	0.000	96	19917	0.2000	0.1497	
	29 Benzo[a]anthracene	228	16.907	16.907	0.000	100	74726	0.2000	0.2121	
*	30 Chrysene-d12	240	16.922	16.922	0.000	92	272804	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Chrysene	228	16.954	16.961	-0.007	100	88497	0.2000	0.2147	
32 Di-n-octyl phthalate	149	17.689	17.689	0.000	100	29484	0.2000	0.1443	
33 Benzo[b]fluoranthene	252	18.463	18.463	0.000	100	70909	0.2000	0.2050	
34 Benzo[k]fluoranthene	252	18.502	18.510	-0.008	100	77402	0.2000	0.2087	
35 Benzo[e]pyrene	252	18.924	18.924	0.000	100	72493	0.2000	0.2073	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.971	18.971	0.000	99	51093	0.2000	0.2079	
37 Benzo[a]pyrene	252	19.010	19.018	-0.008	100	68938	0.2000	0.2134	
* 36 Perylene-d12	264	19.112	19.112	0.000	99	261292	1.00	1.00	
39 Perylene	252	19.151	19.151	0.000	98	77838	0.2000	0.2160	
40 Indeno[1,2,3-cd]pyrene	276	21.098	21.105	-0.007	94	74281	0.2000	0.2120	
41 Dibenz(a,h)anthracene	278	21.112	21.112	0.000	93	65167	0.2000	0.2154	
42 Benzo[g,h,i]perylene	276	21.685	21.685	0.000	100	70193	0.2000	0.2103	
S 43 Total PAH	1				0			4.20	

QC Flag Legend

Processing Flags

Reagents:

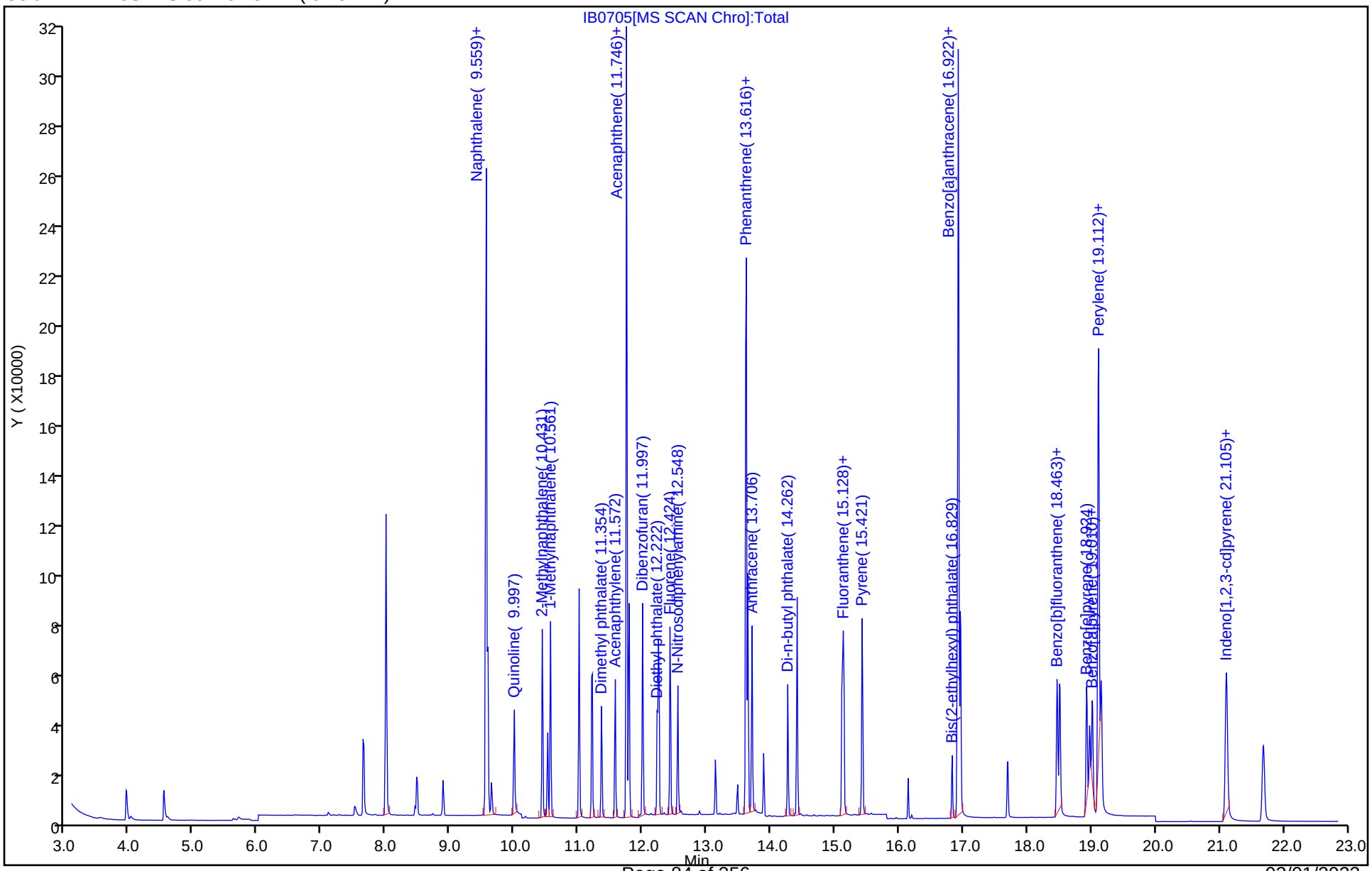
MSS_FVSIM_3_00010 Amount Added: 1.00 Units: mL

Report Date: 21-Feb-2022 10:02:14 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0705.D				
Injection Date:	21-Feb-2022 07:46:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	IC L3			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0706.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Feb-2022 08:17:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L2
Misc. Info.: 410-0050767-007
Operator ID: jmg00346 Instrument ID: HP10976
Sublist: chrom-8270_SIM_HP10976*sub3

Method: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\8270_SIM_HP10976.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 21-Feb-2022 09:33:48 Calib Date: 21-Feb-2022 08:48:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D

Column 1 : Rxi-.5SilMS 30m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1679

First Level Reviewer: gamblerj Date: 21-Feb-2022 09:26:01

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 1,4-Dioxane	88	3.952	3.933	0.019	90	2955	0.0500	0.0530	
	2 N-Nitrosodimethylamine	74	4.542	4.510	0.032	92	3420	0.0500	0.0534	
	3 Bis(2-chloroethyl)ether	93	7.649	7.636	0.013	90	7763	0.0500	0.0545	
*	4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	98	80814	1.00	1.00	
*	5 Naphthalene-d8	136	9.559	9.559	0.000	98	229722	1.00	1.00	
	6 Naphthalene	128	9.585	9.585	0.000	98	16531	0.0500	0.0513	
	7 Quinoline	129	9.996	9.997	-0.001	0	8693	0.0500	0.0509	M
	8 2-Methylnaphthalene	142	10.431	10.431	0.000	93	9981	0.0500	0.0559	
$	9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	99	7694	0.0500	0.0526	
	10 1-Methylnaphthalene	142	10.561	10.561	0.000	95	9847	0.0500	0.0529	
	11 Dimethyl phthalate	163	11.354	11.354	0.000	99	9597	0.0500	0.0518	
	12 Acenaphthylene	152	11.571	11.572	-0.001	99	11517	0.0500	0.0510	
*	13 Acenaphthene-d10	164	11.745	11.745	0.000	99	145134	1.00	1.00	
	14 Acenaphthene	154	11.789	11.789	0.000	84	9290	0.0500	0.0518	
	15 Dibenzofuran	168	11.997	11.997	0.000	100	16627	0.0500	0.0548	
	16 Diethyl phthalate	149	12.222	12.222	0.000	98	7413	0.0500	0.0464	
	17 Fluorene	166	12.424	12.424	0.000	100	10531	0.0500	0.0546	
	18 N-Nitrosodiphenylamine	169	12.548	12.548	0.000	99	6566	0.0500	0.0536	
	19 Hexachlorobenzene	284	13.132	13.132	0.000	99	4700	0.0500	0.0591	
*	20 Phenanthrene-d10	188	13.616	13.605	0.011	100	270625	1.00	1.00	
	21 Phenanthrene	178	13.638	13.638	0.000	100	18873	0.0500	0.0541	
	22 Anthracene	178	13.706	13.706	0.000	100	14691	0.0500	0.0519	M
	23 Di-n-butyl phthalate	149	14.262	14.262	0.000	100	9920	0.0500	0.0415	
$	24 Fluoranthene-d10 (Surr)	212	15.116	15.104	0.012	99	18297	0.0500	0.0528	
	25 Fluoranthene	202	15.128	15.128	0.000	99	20533	0.0500	0.0543	
	26 Pyrene	202	15.421	15.421	0.000	99	20944	0.0500	0.0511	
	27 Butyl benzyl phthalate	149	16.140	16.140	0.000	100	2968	0.0500	0.0370	
	28 Bis(2-ethylhexyl) phthalate	149	16.828	16.828	0.000	96	3819	0.0500	0.0363	
	29 Benzo[a]anthracene	228	16.906	16.907	-0.001	100	18394	0.0500	0.0525	
*	30 Chrysene-d12	240	16.922	16.922	0.000	91	246810	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Chrysene	228	16.953	16.954	-0.001	100	20925	0.0500	0.0515	
32 Di-n-octyl phthalate	149	17.688	17.689	-0.001	100	5622	0.0500	0.0371	
33 Benzo[b]fluoranthene	252	18.463	18.463	0.000	100	16449	0.0500	0.0526	
34 Benzo[k]fluoranthene	252	18.510	18.502	0.008	100	18237	0.0500	0.0544	
35 Benzo[e]pyrene	252	18.924	18.924	0.000	100	17346	0.0500	0.0549	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.971	18.971	0.000	100	10933	0.0500	0.0492	
37 Benzo[a]pyrene	252	19.010	19.010	0.000	100	14926	0.0500	0.0511	
* 36 Perylene-d12	264	19.112	19.112	0.000	99	236213	1.00	1.00	
39 Perylene	252	19.151	19.151	0.000	98	18370	0.0500	0.0516	
40 Indeno[1,2,3-cd]pyrene	276	21.105	21.098	0.007	99	17199	0.0500	0.0543	
41 Dibenz(a,h)anthracene	278	21.112	21.105	0.007	97	14568	0.0500	0.0533	
42 Benzo[g,h,i]perylene	276	21.684	21.677	0.007	100	16428	0.0500	0.0545	
S 43 Total PAH	1				0			1.06	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

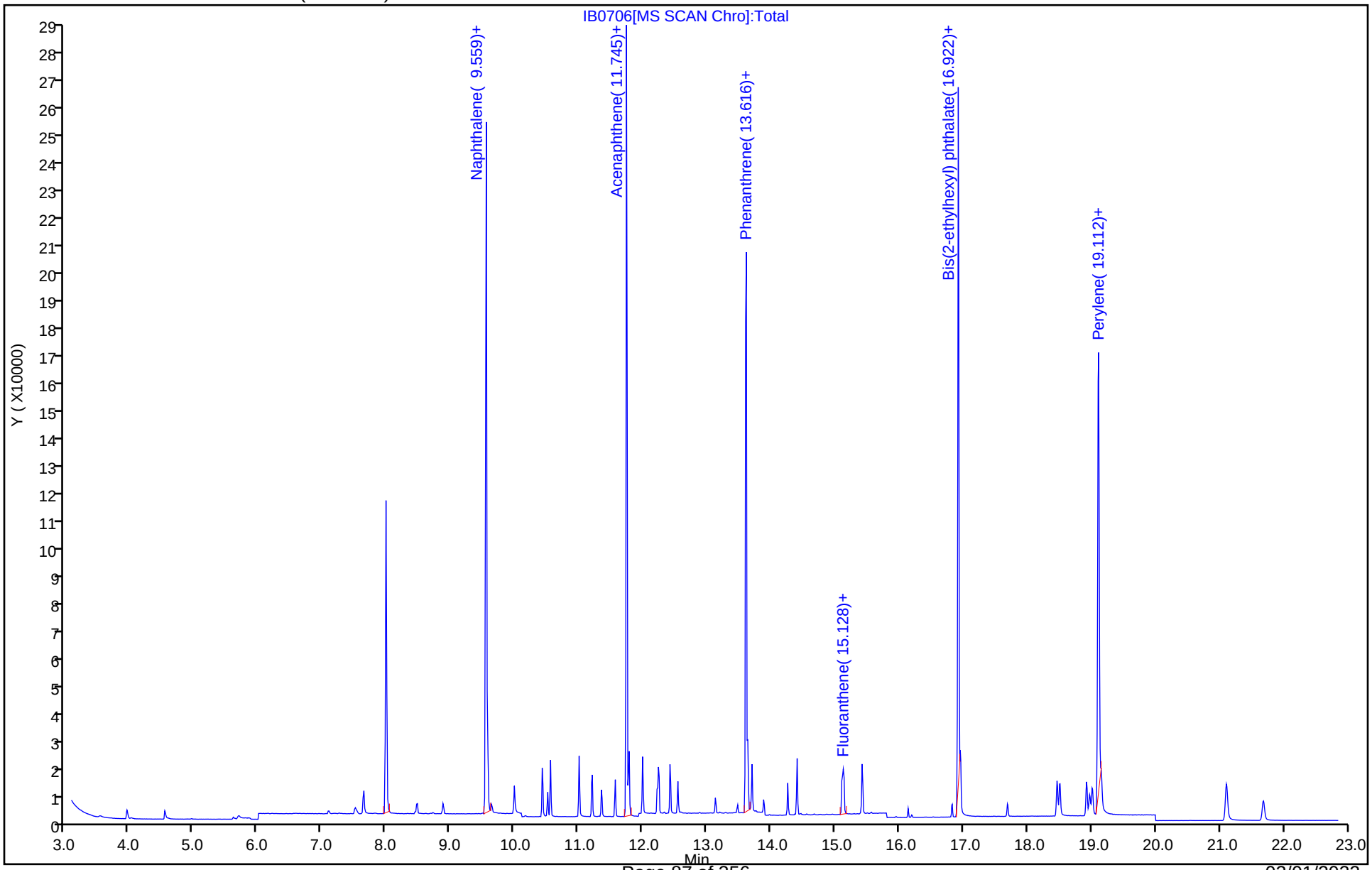
MSS_FVSIM_2_00011 Amount Added: 1.00 Units: mL

Report Date: 21-Feb-2022 09:33:48 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0706.D				
Injection Date:	21-Feb-2022 08:17:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	IC L2			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

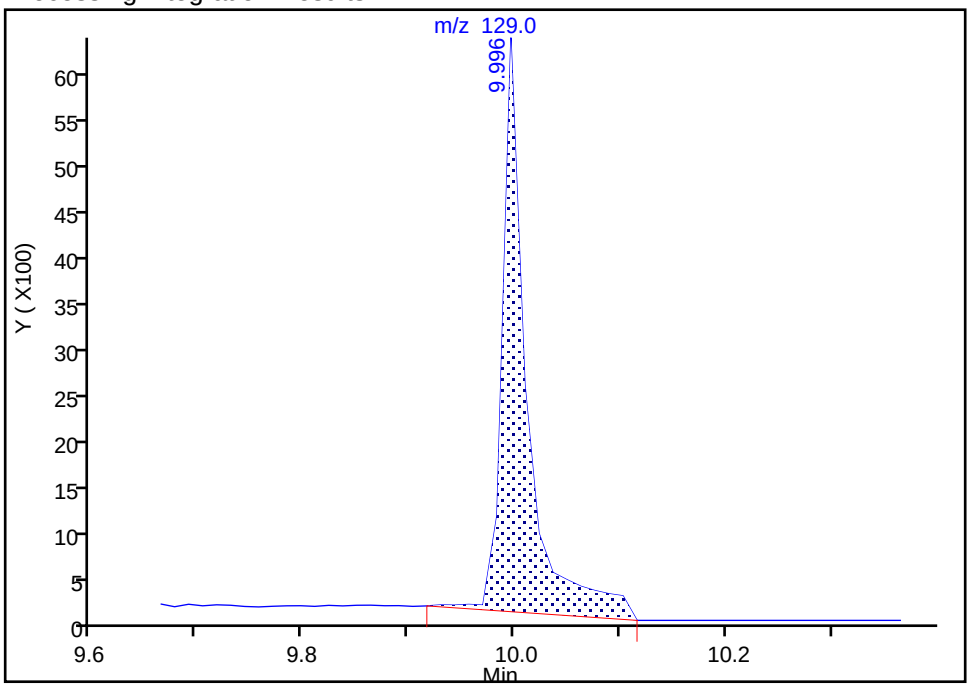
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0706.D				
Injection Date:	21-Feb-2022 08:17:30	Instrument ID:	HP10976		
Lims ID:	IC L2				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

7 Quinoline, CAS: 91-22-5

Signal: 1

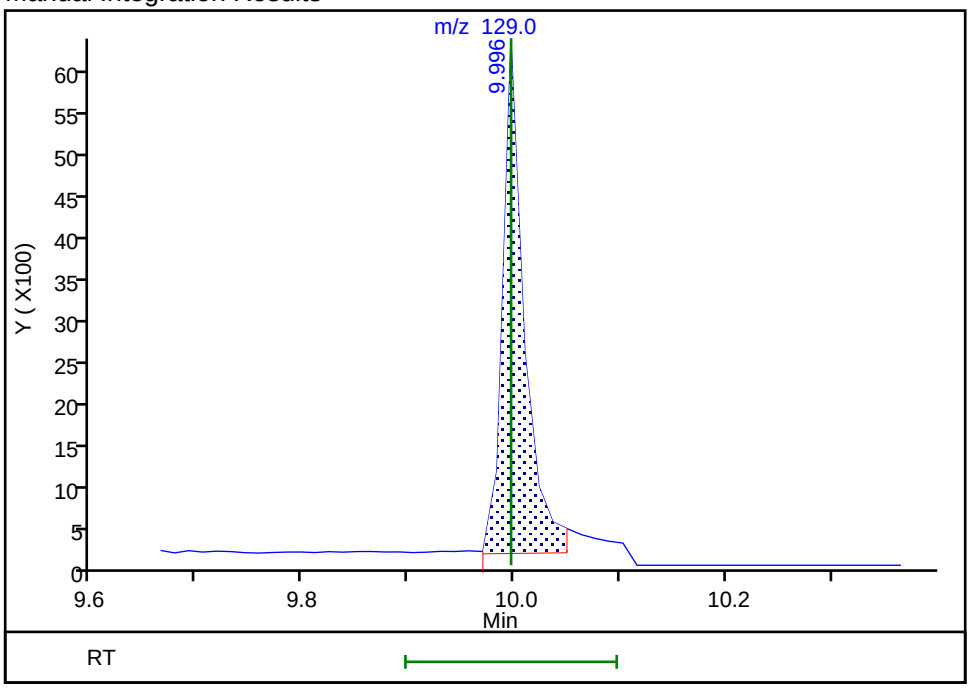
Processing Integration Results

RT: 10.00
Area: 10138
Amount: 0.052593
Amount Units: ug/ml



Manual Integration Results

RT: 10.00
Area: 8693
Amount: 0.050863
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 09:25:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

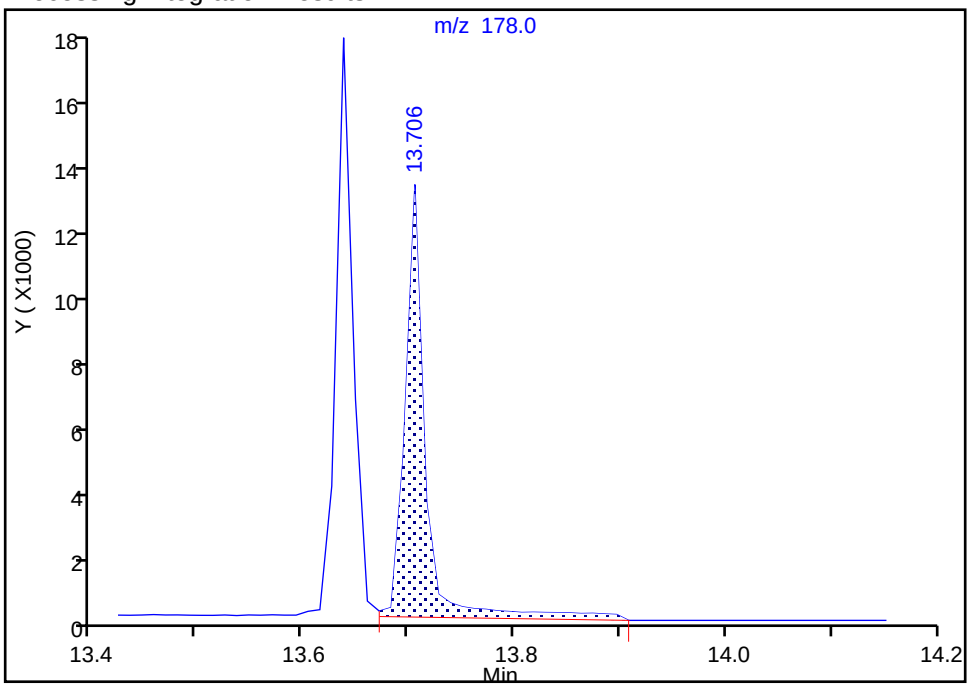
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0706.D				
Injection Date:	21-Feb-2022 08:17:30	Instrument ID:	HP10976		
Lims ID:	IC L2				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

22 Anthracene, CAS: 120-12-7

Signal: 1

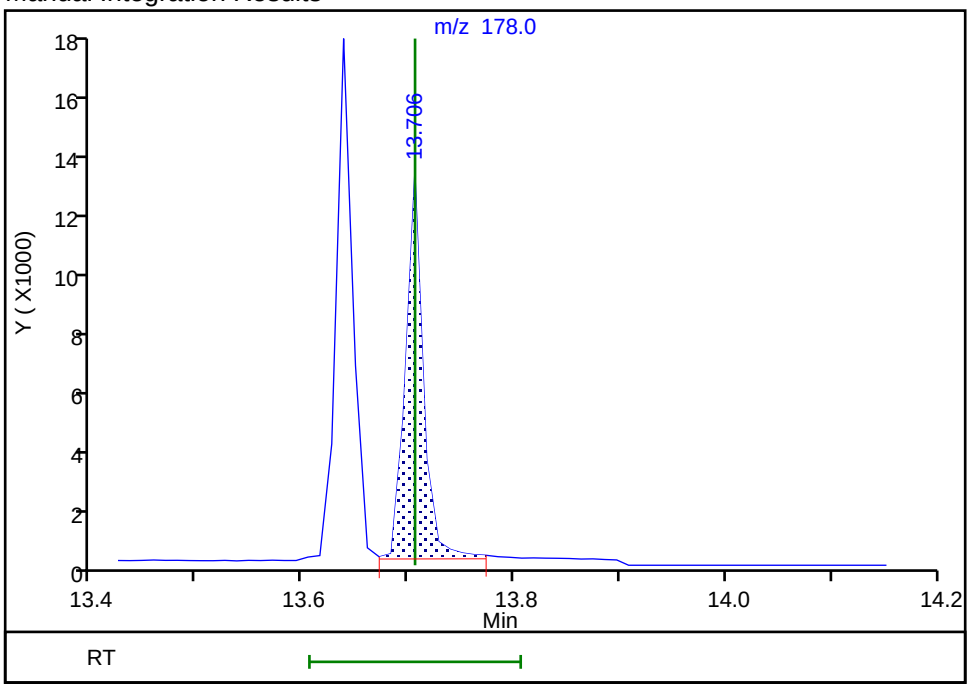
Processing Integration Results

RT: 13.71
Area: 16896
Amount: 0.052280
Amount Units: ug/ml



Manual Integration Results

RT: 13.71
Area: 14691
Amount: 0.051890
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 09:25:38

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 21-Feb-2022 08:48:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L1
Misc. Info.: 410-0050767-008
Operator ID: jmg00346 Instrument ID: HP10976
Sublist: chrom-8270_SIM_HP10976*sub3

Method: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\8270_SIM_HP10976.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 21-Feb-2022 09:33:50 Calib Date: 21-Feb-2022 08:48:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D

Column 1 : Rxi-.5SilMS 30m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1679

First Level Reviewer: gamblerj Date: 21-Feb-2022 09:29:28

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 1,4-Dioxane	88	3.959	3.959	0.000	89	856	0.0100	0.008944	
	2 N-Nitrosodimethylamine	74	4.555	4.555	0.000	91	1099	0.0100	0.006398	
	3 Bis(2-chloroethyl)ether	93	7.649	7.649	0.000	93	2184	0.0100	0.008870	
*	4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	98	93823	1.00	1.00	
*	5 Naphthalene-d8	136	9.559	9.559	0.000	98	271553	1.00	1.00	
	6 Naphthalene	128	9.586	9.586	0.000	95	5073	0.0100	0.005772	
	7 Quinoline	129	9.997	9.997	0.000	0	2263	0.0100	0.0112	M
	8 2-Methylnaphthalene	142	10.431	10.431	0.000	95	2915	0.0100	0.0139	
$	9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	99	2217	0.0100	0.009463	
	10 1-Methylnaphthalene	142	10.561	10.561	0.000	93	2812	0.0100	0.009311	
	11 Dimethyl phthalate	163	11.354	11.354	0.000	99	2602	0.0100	0.0119	
	12 Acenaphthylene	152	11.572	11.572	0.000	99	3141	0.0100	0.0118	
*	13 Acenaphthene-d10	164	11.745	11.745	0.000	99	170767	1.00	1.00	
	14 Acenaphthene	154	11.789	11.789	0.000	83	2608	0.0100	0.006537	
	15 Dibenzofuran	168	11.997	11.997	0.000	99	4558	0.0100	0.008445	M
	16 Diethyl phthalate	149	12.222	12.222	0.000	98	2218	0.0100	0.0118	
	17 Fluorene	166	12.424	12.424	0.000	98	2892	0.0100	0.0127	
	18 N-Nitrosodiphenylamine	169	12.548	12.548	0.000	99	1785	0.0100	0.0127	M
	19 Hexachlorobenzene	284	13.133	13.133	0.000	97	1308	0.0100	0.0136	M
*	20 Phenanthrene-d10	188	13.616	13.616	0.000	100	309397	1.00	1.00	
	21 Phenanthrene	178	13.638	13.638	0.000	100	5742	0.0100	0.008353	
	22 Anthracene	178	13.706	13.706	0.000	99	3969	0.0100	0.0123	M
	23 Di-n-butyl phthalate	149	14.262	14.262	0.000	100	3262	0.0100	0.0119	
$	24 Fluoranthene-d10 (Surr)	212	15.116	15.116	0.000	99	5277	0.0100	0.0133	
	25 Fluoranthene	202	15.128	15.128	0.000	98	5554	0.0100	0.0129	
	26 Pyrene	202	15.421	15.421	0.000	100	6093	0.0100	0.008778	
	27 Butyl benzyl phthalate	149	16.140	16.140	0.000	100	922	0.0100	0.009703	
	28 Bis(2-ethylhexyl) phthalate	149	16.828	16.828	0.000	96	1251	0.0100	0.0143	
	29 Benzo[a]anthracene	228	16.907	16.907	0.000	44	6231	0.0100	0.009855	M
*	30 Chrysene-d12	240	16.922	16.922	0.000	90	292241	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Chrysene	228	16.961	16.961	0.000	98	6394	0.0100	0.008929	M
32 Di-n-octyl phthalate	149	17.689	17.689	0.000	100	1466	0.0100	0.0147	
33 Benzo[b]fluoranthene	252	18.463	18.463	0.000	100	4815	0.0100	0.0130	
34 Benzo[k]fluoranthene	252	18.510	18.510	0.000	100	5163	0.0100	0.0130	
35 Benzo[e]pyrene	252	18.924	18.924	0.000	100	4960	0.0100	0.0133	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.971	18.971	0.000	100	3022	0.0100	0.0115	
37 Benzo[a]pyrene	252	19.018	19.018	0.000	100	4059	0.0100	0.0117	
* 36 Perylene-d12	264	19.112	19.112	0.000	99	279705	1.00	1.00	
39 Perylene	252	19.151	19.151	0.000	99	5260	0.0100	0.007839	
40 Indeno[1,2,3-cd]pyrene	276	21.105	21.105	0.000	97	4636	0.0100	0.0124	
41 Dibenz(a,h)anthracene	278	21.112	21.112	0.000	99	3956	0.0100	0.0122	
42 Benzo[g,h,i]perylene	276	21.685	21.685	0.000	100	4794	0.0100	0.0134	
S 43 Total PAH	1				0			0.2179	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

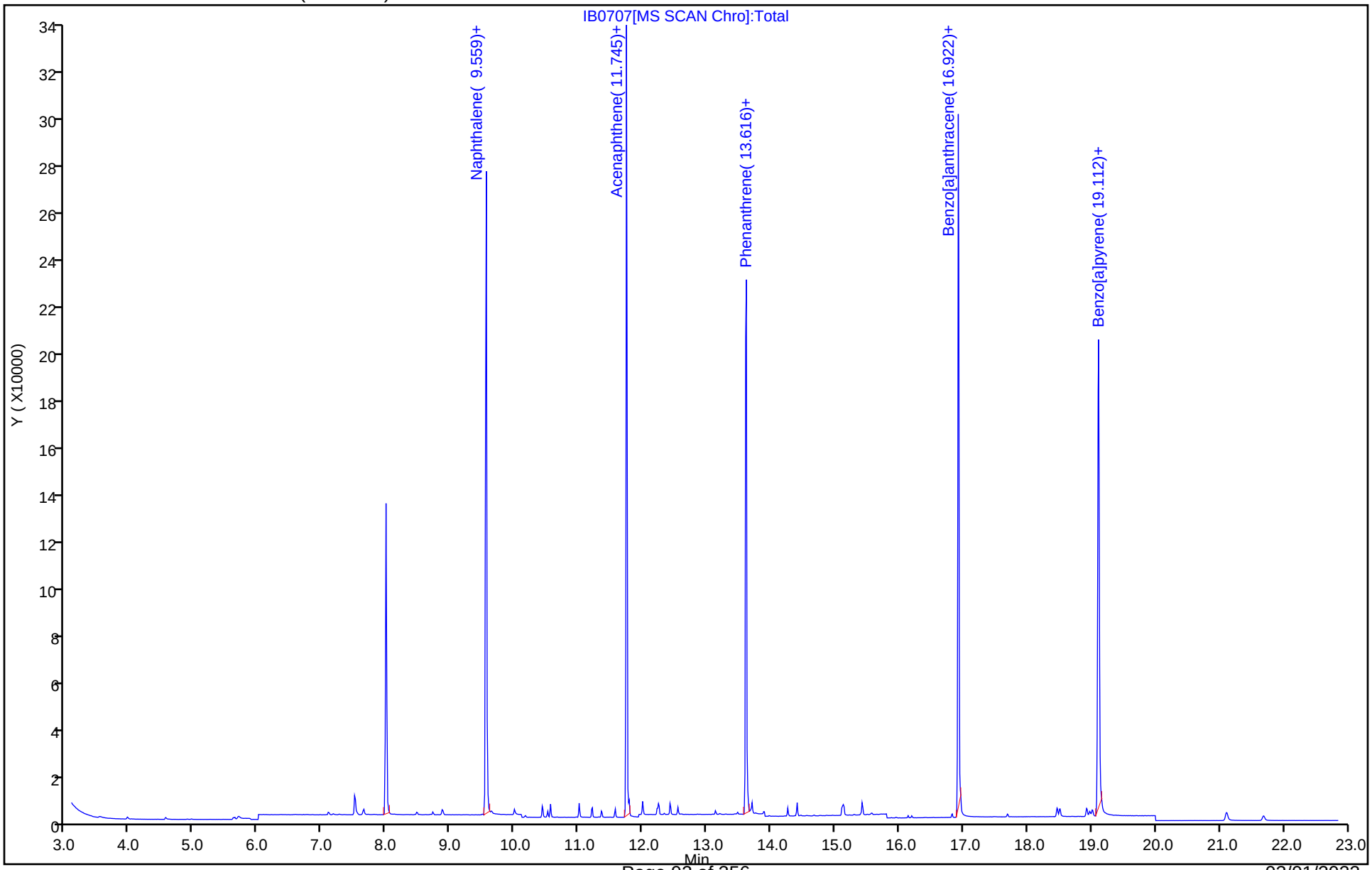
MSS_FVSIM_1_00010 Amount Added: 1.00 Units: mL

Report Date: 21-Feb-2022 09:33:50 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Injection Date:	21-Feb-2022 08:48:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	IC L1			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

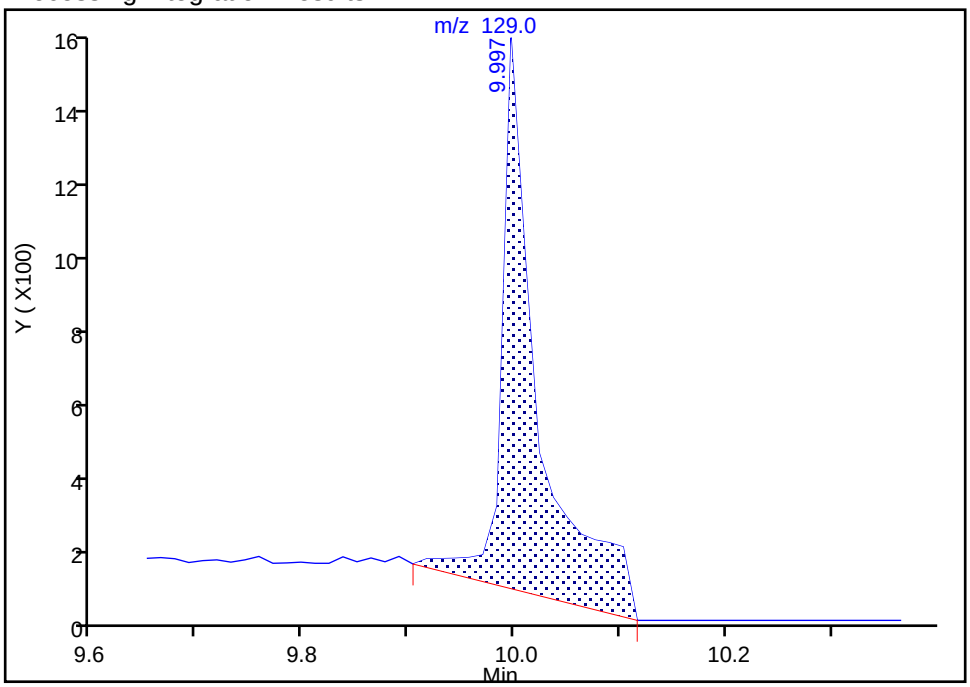
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Injection Date:	21-Feb-2022 08:48:30	Instrument ID:	HP10976		
Lims ID:	IC L1				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

7 Quinoline, CAS: 91-22-5

Signal: 1

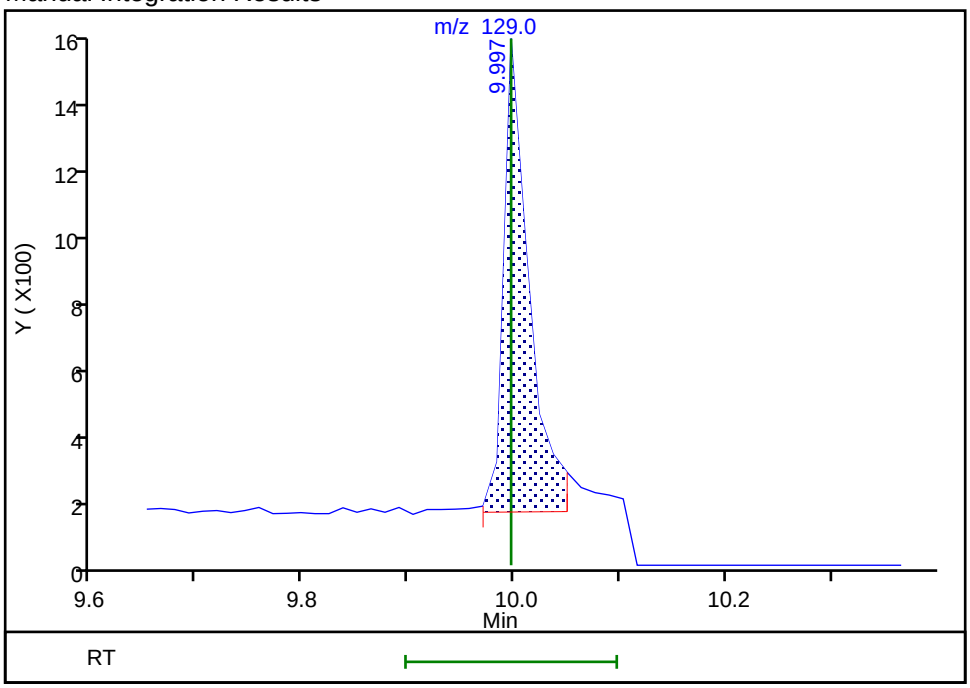
Processing Integration Results

RT: 10.00
Area: 3478
Amount: 0.012092
Amount Units: ug/ml



Manual Integration Results

RT: 10.00
Area: 2263
Amount: 0.011201
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 09:27:47

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

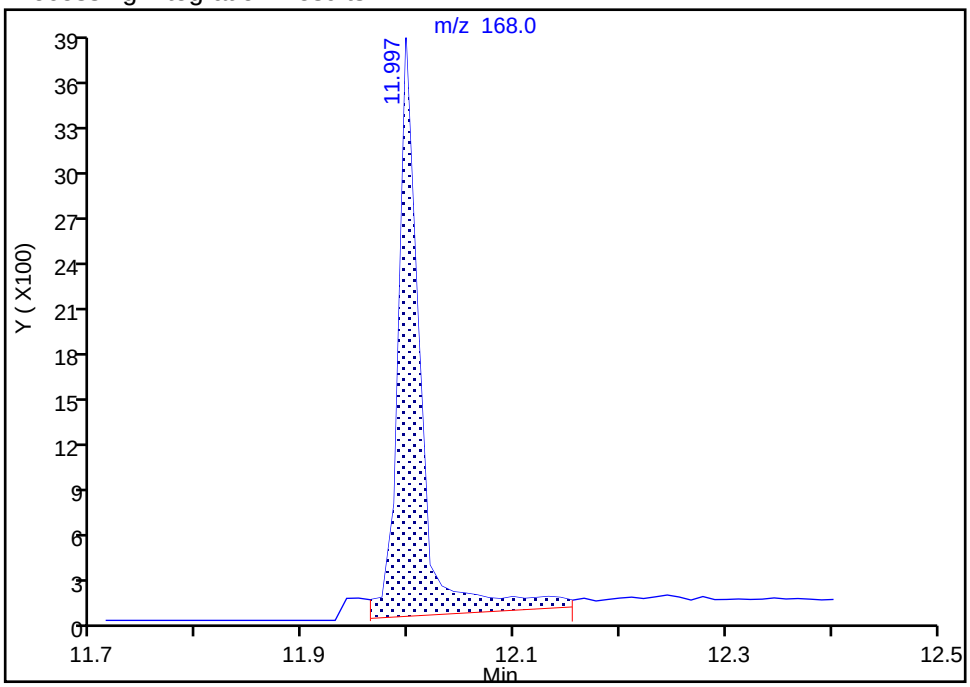
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Injection Date:	21-Feb-2022 08:48:30	Instrument ID:	HP10976		
Lims ID:	IC L1				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

15 Dibenzofuran, CAS: 132-64-9

Signal: 1

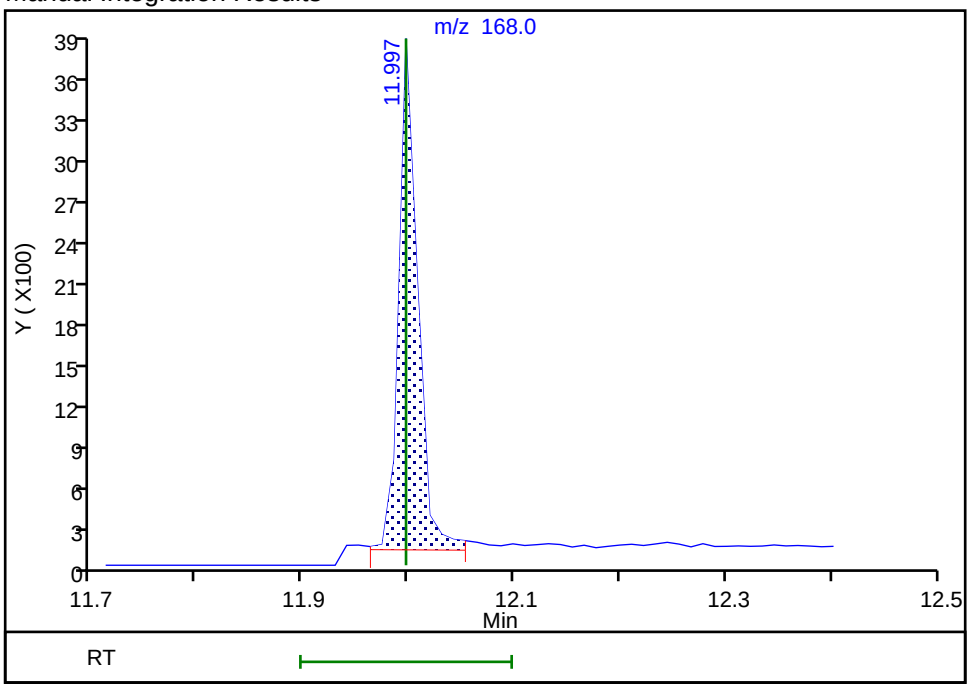
Processing Integration Results

RT: 12.00
Area: 5497
Amount: 0.008925
Amount Units: ug/ml



Manual Integration Results

RT: 12.00
Area: 4558
Amount: 0.008445
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 09:27:59

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

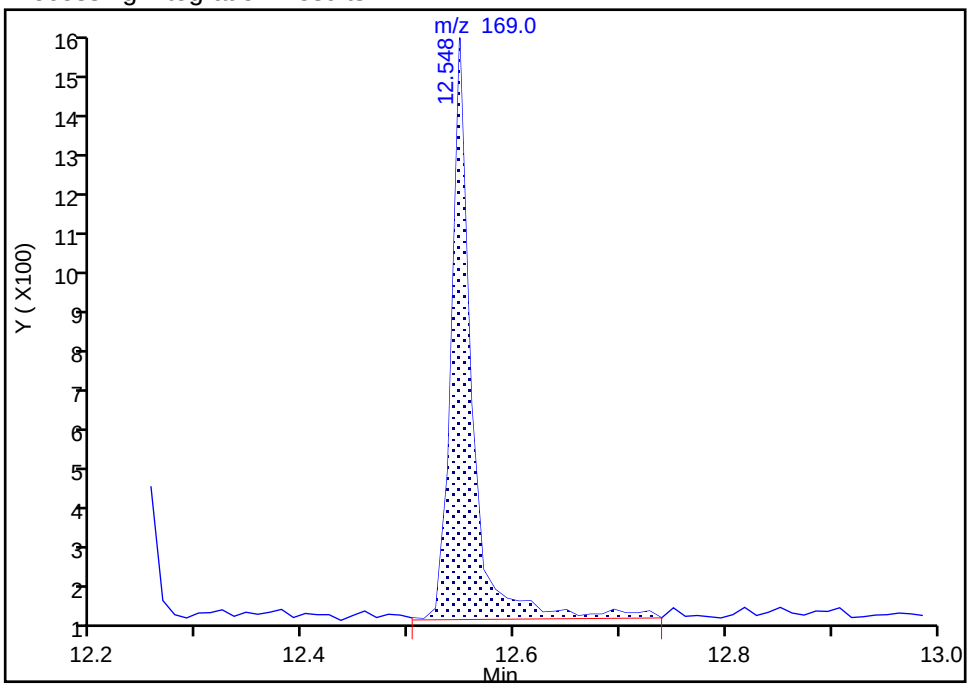
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Injection Date:	21-Feb-2022 08:48:30	Instrument ID:	HP10976		
Lims ID:	IC L1				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

18 N-Nitrosodiphenylamine, CAS: 86-30-6

Signal: 1

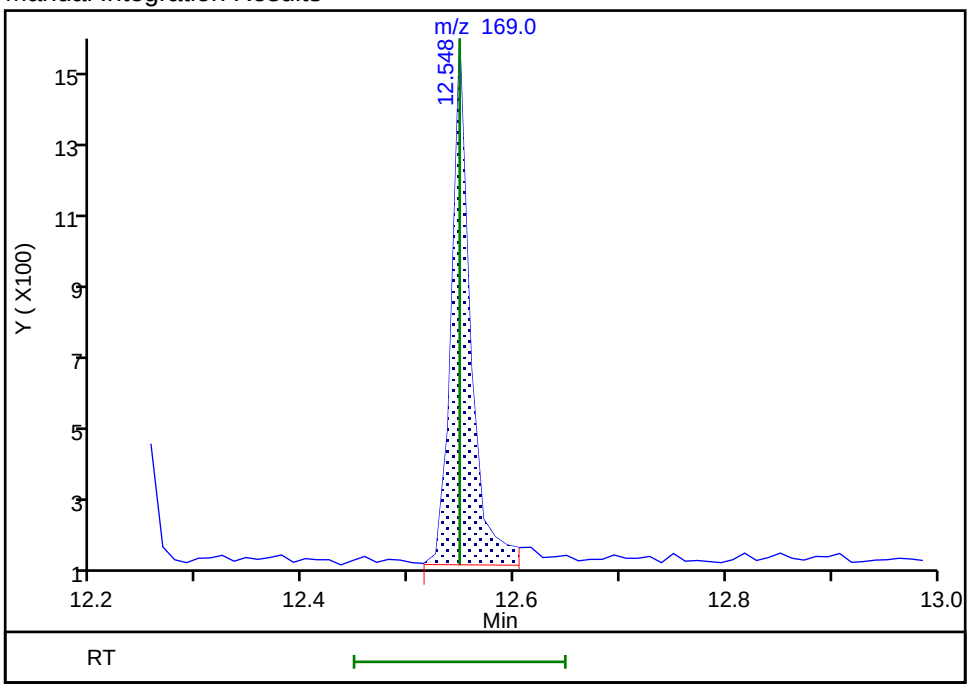
Processing Integration Results

RT: 12.55
Area: 1920
Amount: 0.013342
Amount Units: ug/ml



Manual Integration Results

RT: 12.55
Area: 1785
Amount: 0.012734
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 09:28:07

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

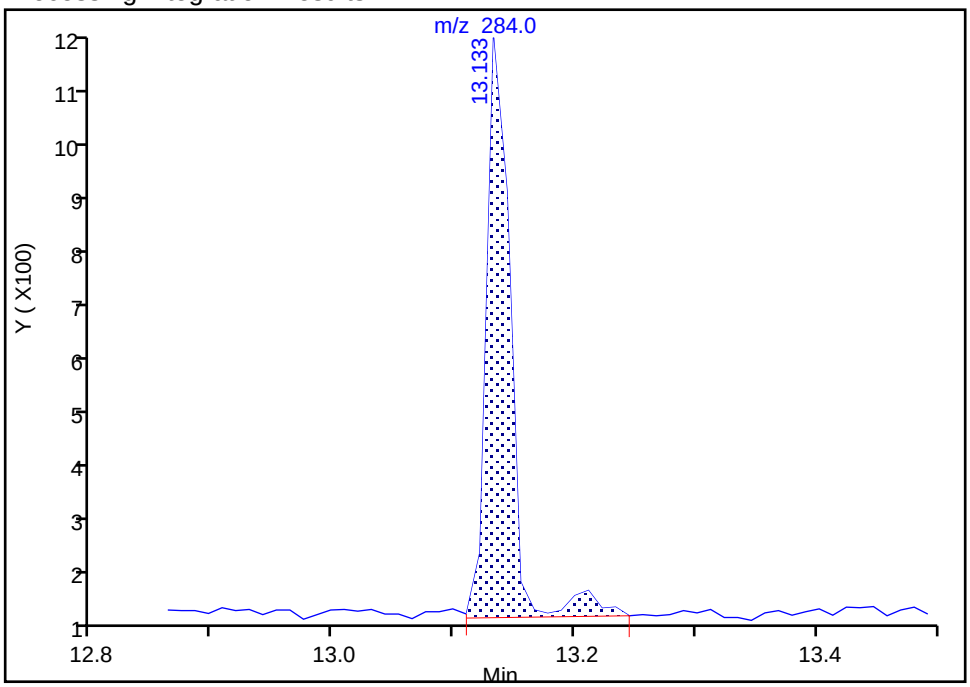
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Injection Date:	21-Feb-2022 08:48:30	Instrument ID:	HP10976		
Lims ID:	IC L1				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

19 Hexachlorobenzene, CAS: 118-74-1

Signal: 1

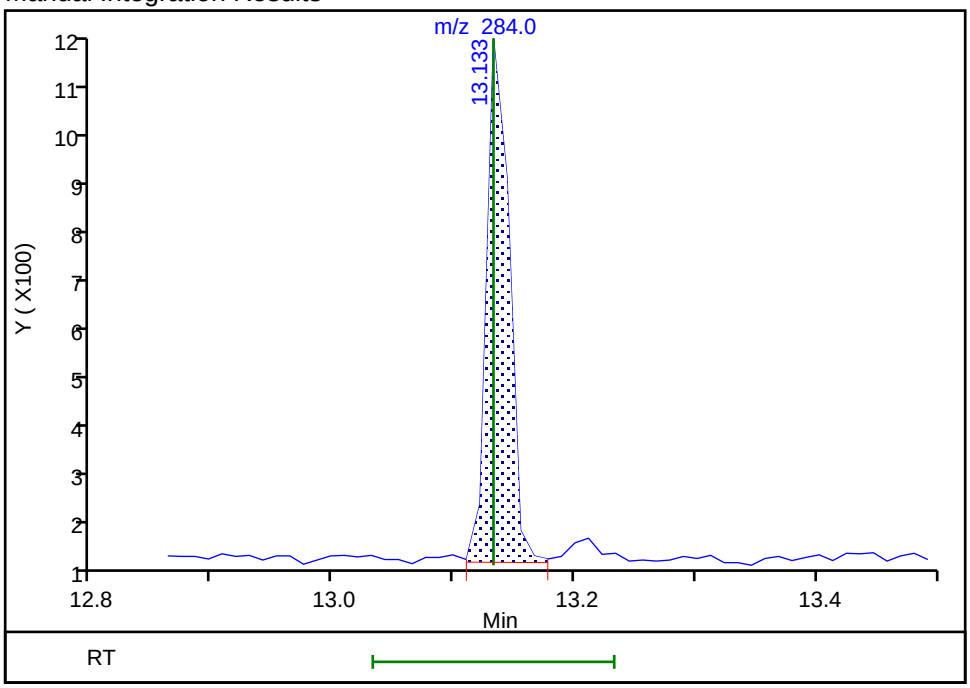
Processing Integration Results

RT: 13.13
Area: 1393
Amount: 0.009360
Amount Units: ug/ml



Manual Integration Results

RT: 13.13
Area: 1308
Amount: 0.013572
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 09:28:14

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

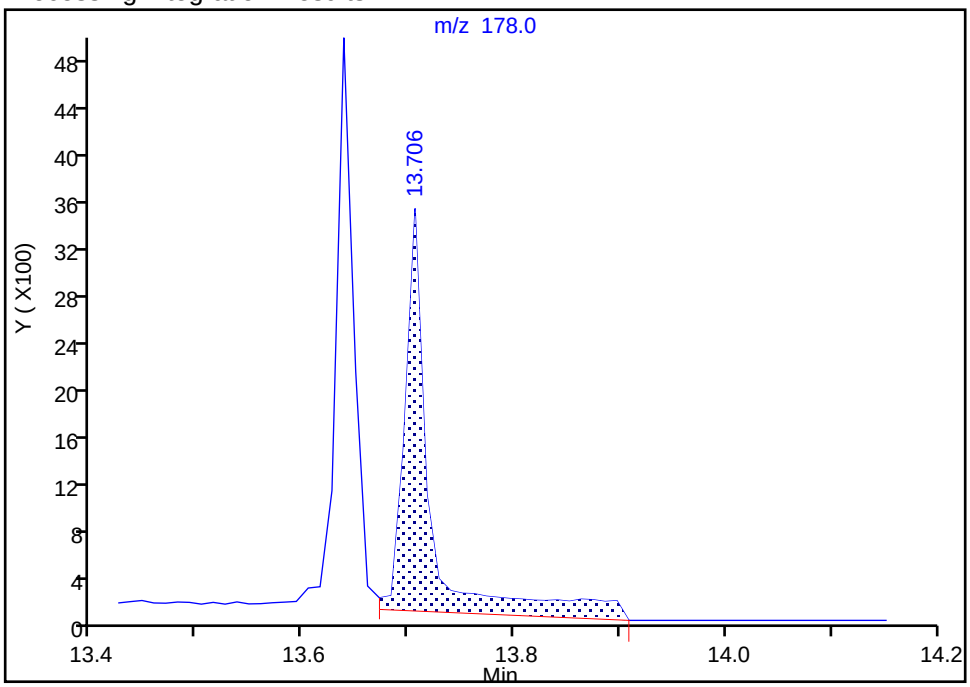
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Injection Date:	21-Feb-2022 08:48:30	Instrument ID:	HP10976		
Lims ID:	IC L1				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

22 Anthracene, CAS: 120-12-7

Signal: 1

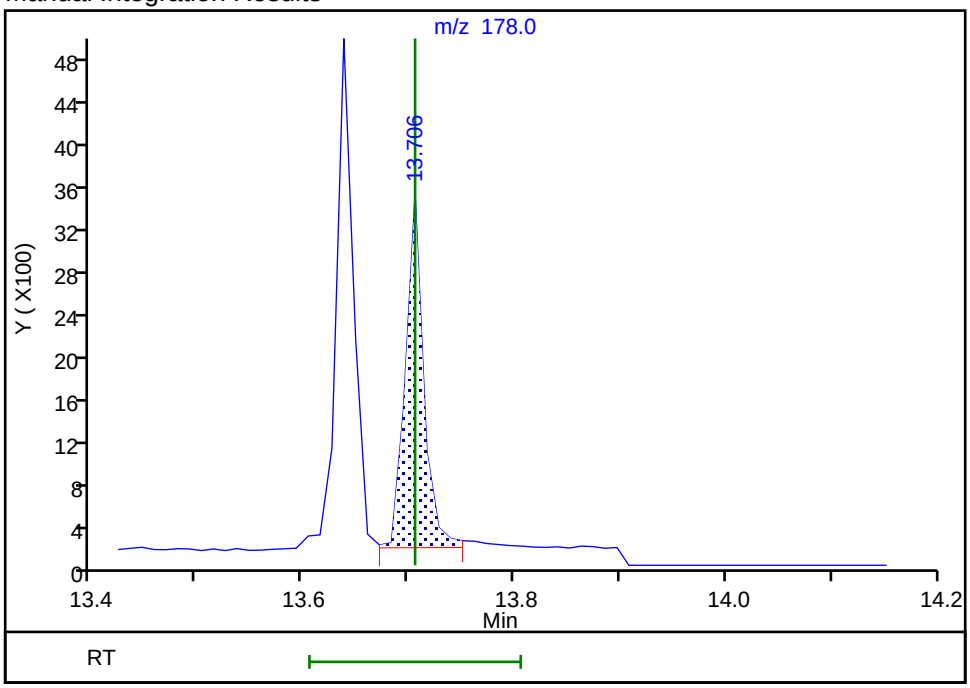
Processing Integration Results

RT: 13.71
Area: 5750
Amount: 0.013662
Amount Units: ug/ml



Manual Integration Results

RT: 13.71
Area: 3969
Amount: 0.012262
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 09:28:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

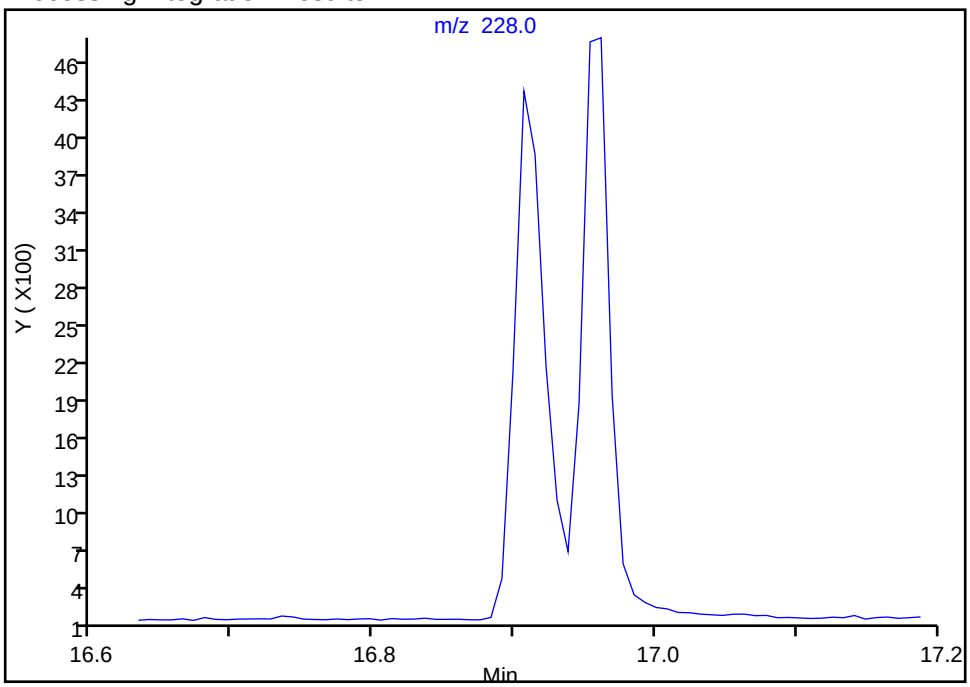
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Injection Date:	21-Feb-2022 08:48:30	Instrument ID:	HP10976		
Lims ID:	IC L1				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

29 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

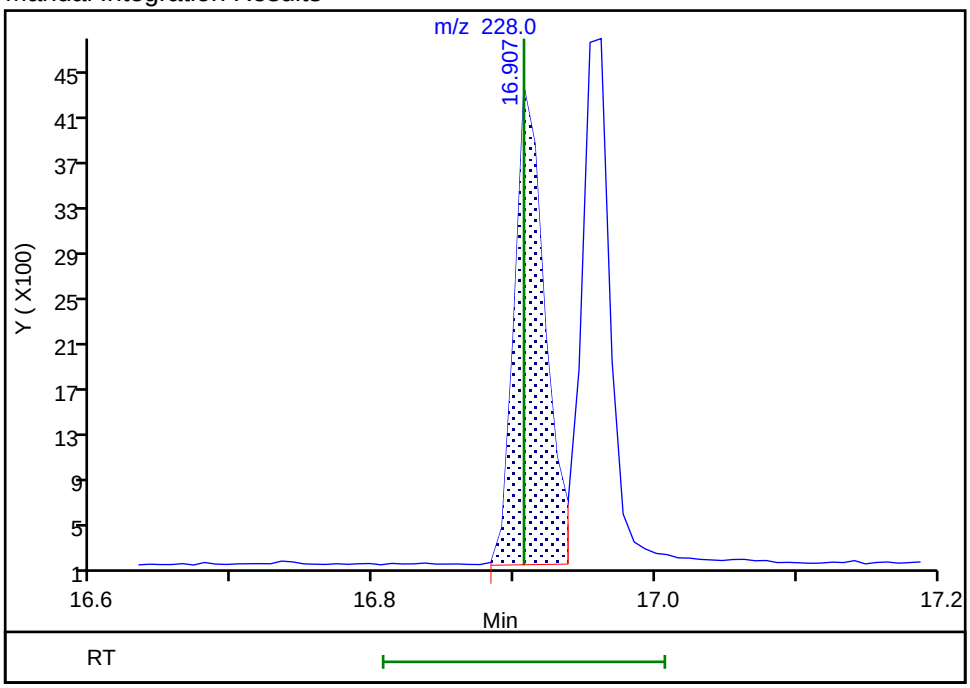
Processing Integration Results

Not Detected
Expected RT: 16.91



Manual Integration Results

RT: 16.91
Area: 6231
Amount: 0.009855
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 09:28:32
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

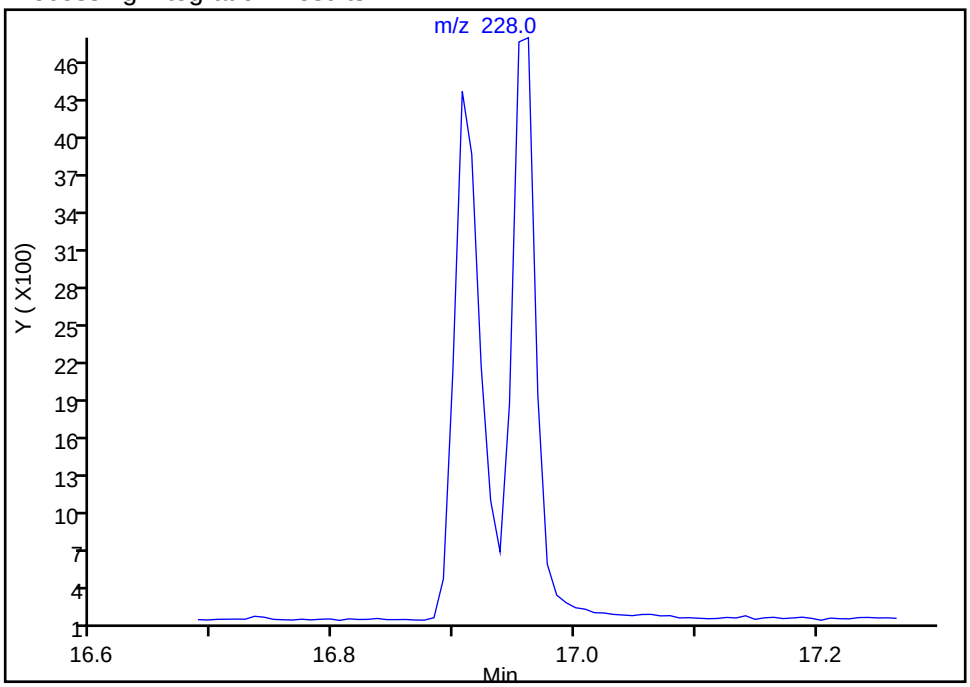
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Injection Date:	21-Feb-2022 08:48:30	Instrument ID:	HP10976		
Lims ID:	IC L1				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

31 Chrysene, CAS: 218-01-9

Signal: 1

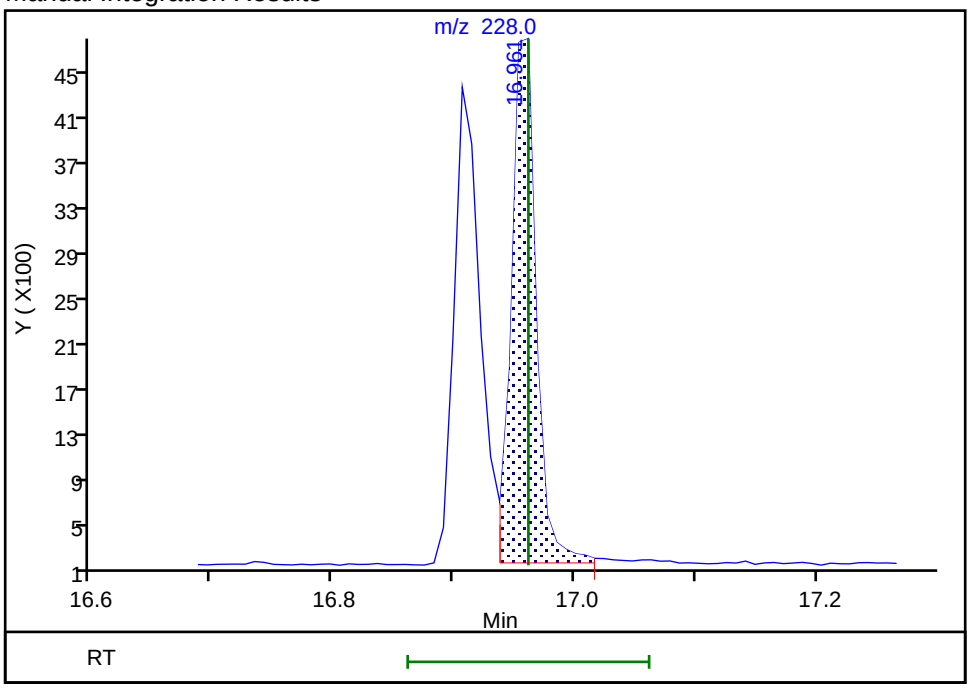
Processing Integration Results

Not Detected
Expected RT: 16.96



Manual Integration Results

RT: 16.96
Area: 6394
Amount: 0.008929
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 09:28:42
Audit Action: Manually Integrated Audit Reason: Baseline

Calibration / 1,4-Dioxane

Curve Type:	Quadratic
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

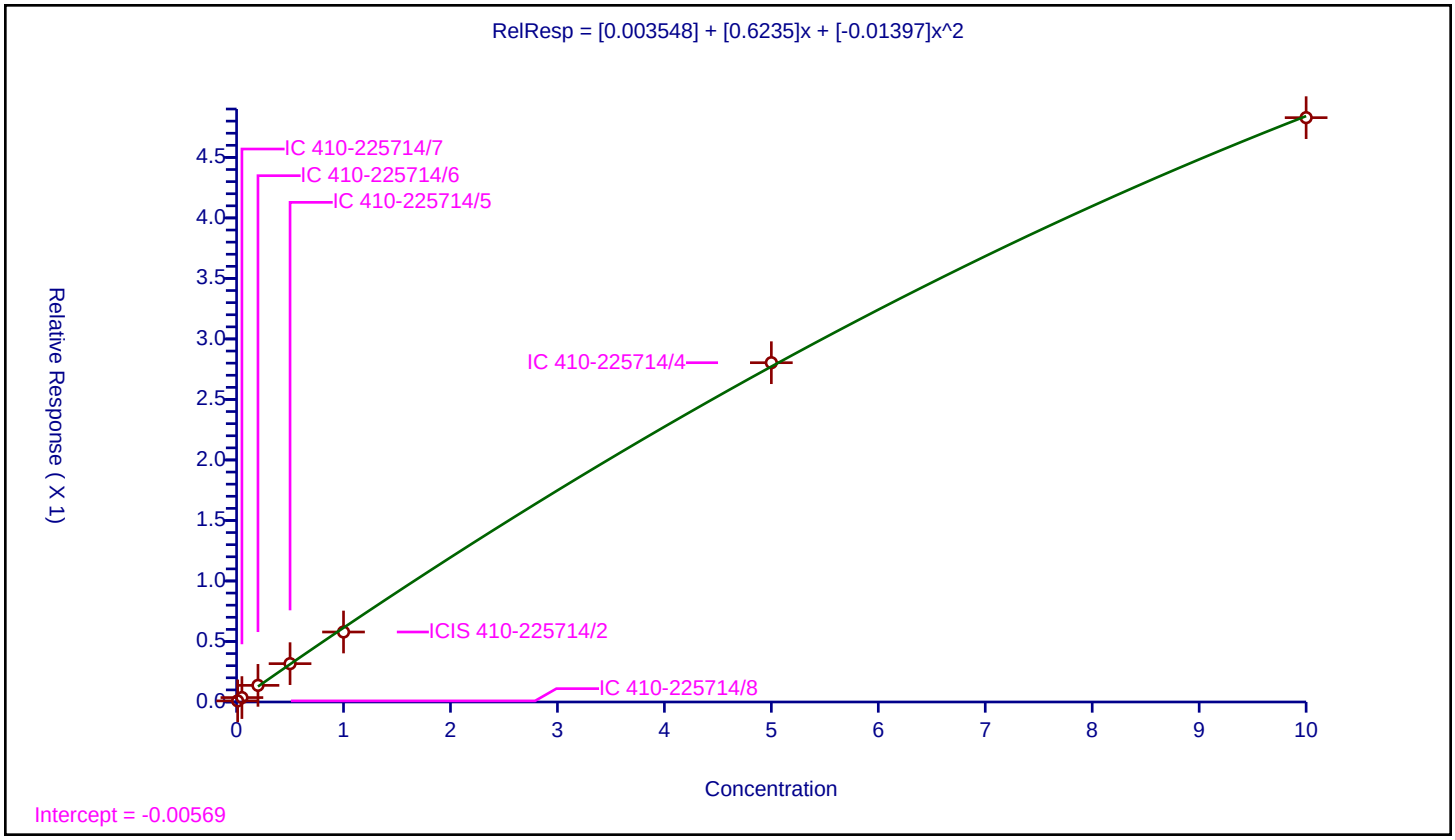
Curve Coefficients

Intercept:	0.003548
Slope:	0.6235
Second Order:	-0.01397

Error Coefficients

Standard Error:	243000
Relative Standard Error:	7.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.009124	1.0	93823.0	0.912356	Y
2	IC 410-225714/7	0.05	0.036565	1.0	80814.0	0.731309	Y
3	IC 410-225714/6	0.2	0.137314	1.0	85323.0	0.686568	Y
4	IC 410-225714/5	0.5	0.316779	1.0	94539.0	0.633559	Y
5	ICIS 410-225714/2	1.0	0.578311	1.0	119588.0	0.578311	Y
6	IC 410-225714/4	5.0	2.80382	1.0	88383.0	0.560764	Y
7	IC 410-225714/3	10.0	4.82866	1.0	84948.0	0.482866	Y



Calibration / N-Nitrosodimethylamine

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

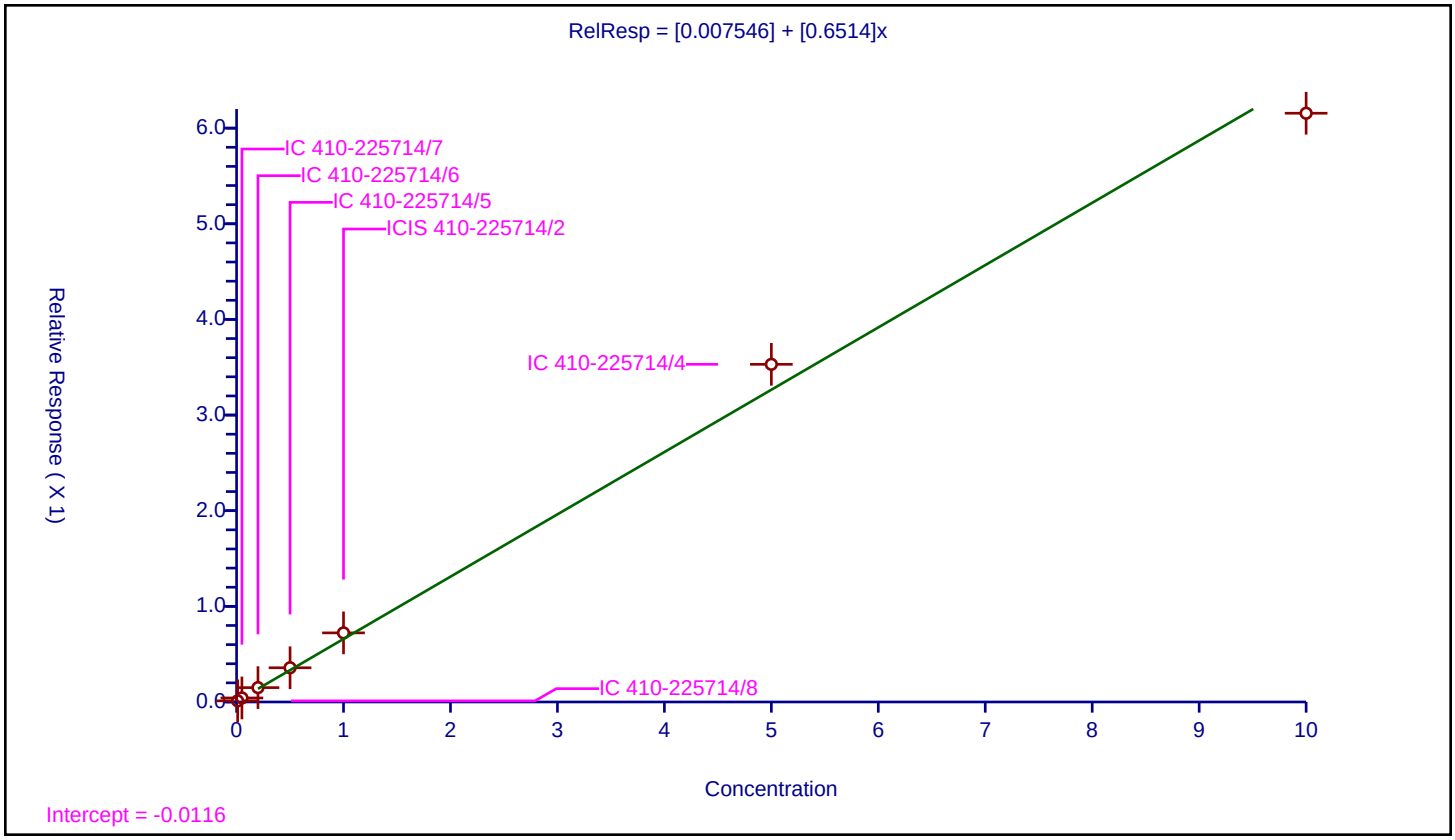
Curve Coefficients

Intercept:	0.007546
Slope:	0.6514

Error Coefficients

Standard Error:	276000
Relative Standard Error:	18.3
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.011714	1.0	93823.0	1.171355	Y
2	IC 410-225714/7	0.05	0.042319	1.0	80814.0	0.846388	Y
3	IC 410-225714/6	0.2	0.150053	1.0	85323.0	0.750267	Y
4	IC 410-225714/5	0.5	0.35799	1.0	94539.0	0.71598	Y
5	ICIS 410-225714/2	1.0	0.722556	1.0	119588.0	0.722556	Y
6	IC 410-225714/4	5.0	3.530577	1.0	88383.0	0.706115	Y
7	IC 410-225714/3	10.0	6.155895	1.0	84948.0	0.61559	Y



Calibration / Bis(2-chloroethyl)ether

Curve Type:	Quadratic
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

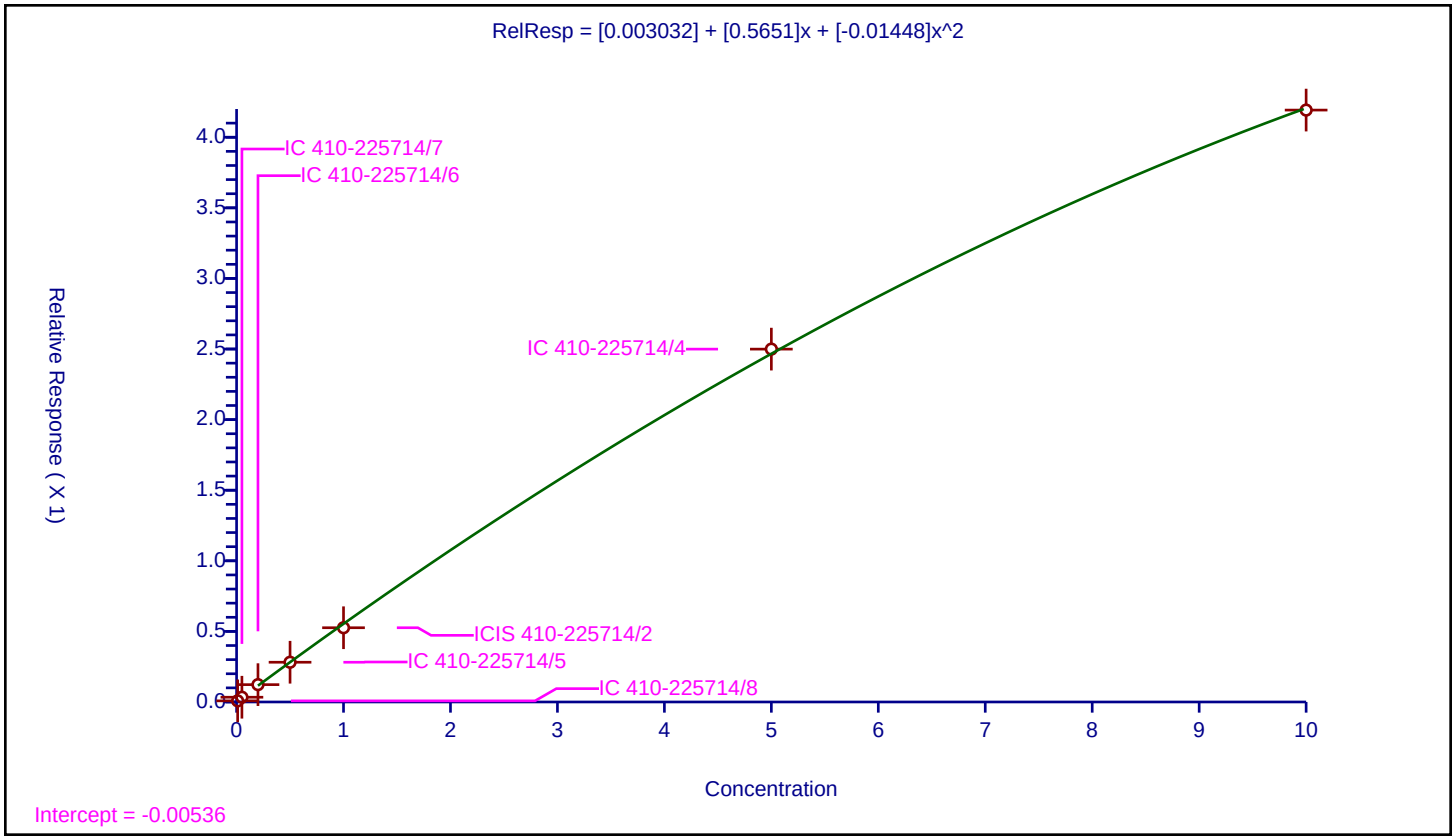
Curve Coefficients

Intercept:	0.003032
Slope:	0.5651
Second Order:	-0.01448

Error Coefficients

Standard Error:	626000
Relative Standard Error:	8.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.008043	1.0	271553.0	0.804263	Y
2	IC 410-225714/7	0.05	0.033793	1.0	229722.0	0.67586	Y
3	IC 410-225714/6	0.2	0.122776	1.0	245145.0	0.613882	Y
4	IC 410-225714/5	0.5	0.281467	1.0	273489.0	0.562933	Y
5	ICIS 410-225714/2	1.0	0.52588	1.0	378792.0	0.52588	Y
6	IC 410-225714/4	5.0	2.499331	1.0	257949.0	0.499866	Y
7	IC 410-225714/3	10.0	4.192386	1.0	250840.0	0.419239	Y



Calibration / Naphthalene

Curve Type:	Quadratic
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

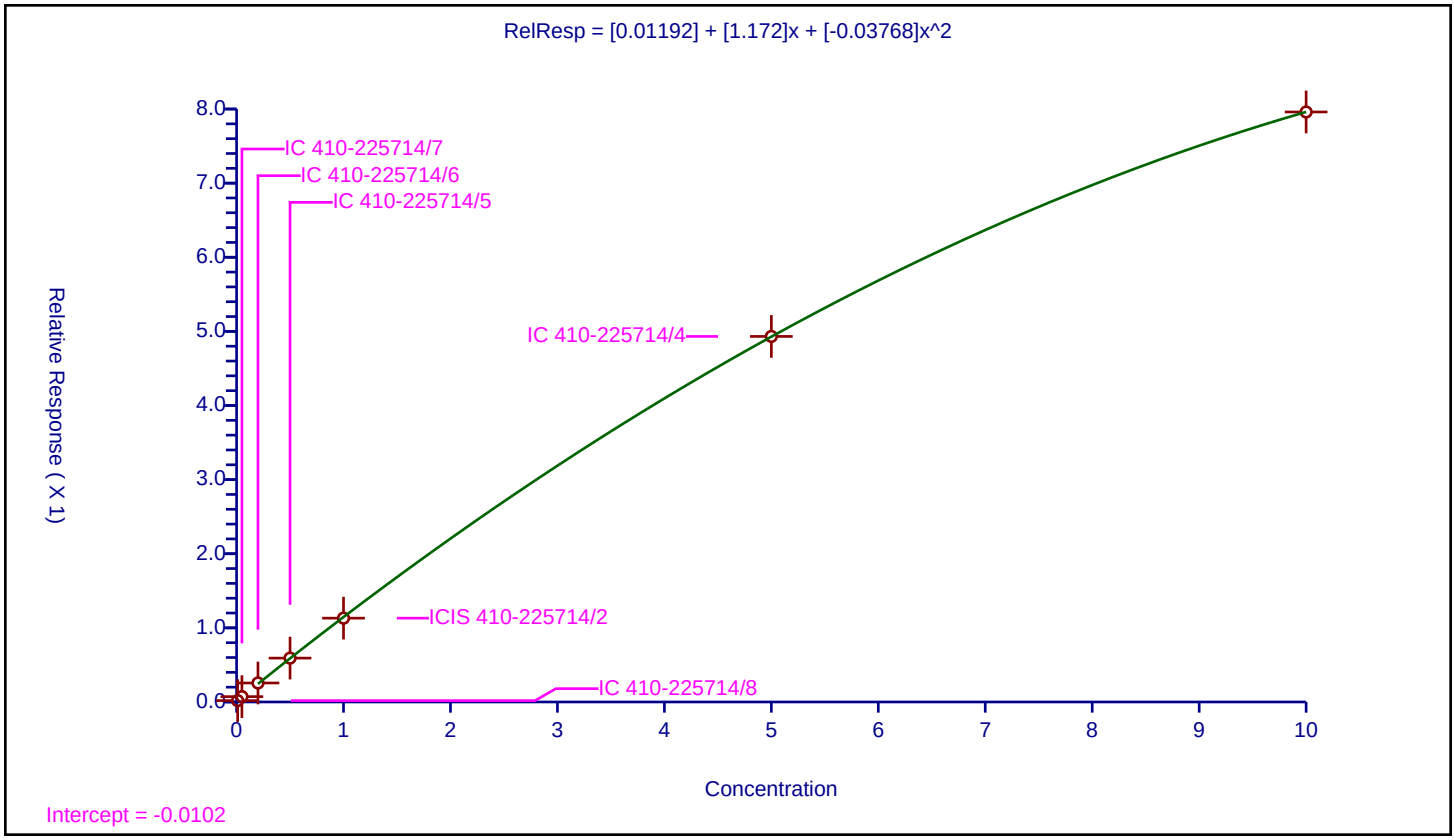
Curve Coefficients

Intercept:	0.01192
Slope:	1.172
Second Order:	-0.03768

Error Coefficients

Standard Error:	1210000
Relative Standard Error:	21.3
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.018681	1.0	271553.0	1.868144	Y
2	IC 410-225714/7	0.05	0.071961	1.0	229722.0	1.439218	Y
3	IC 410-225714/6	0.2	0.25631	1.0	245145.0	1.281548	Y
4	IC 410-225714/5	0.5	0.592057	1.0	273489.0	1.184113	Y
5	ICIS 410-225714/2	1.0	1.131109	1.0	378792.0	1.131109	Y
6	IC 410-225714/4	5.0	4.931998	1.0	257949.0	0.9864	Y
7	IC 410-225714/3	10.0	7.959986	1.0	250840.0	0.795999	Y



Calibration / Quinoline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

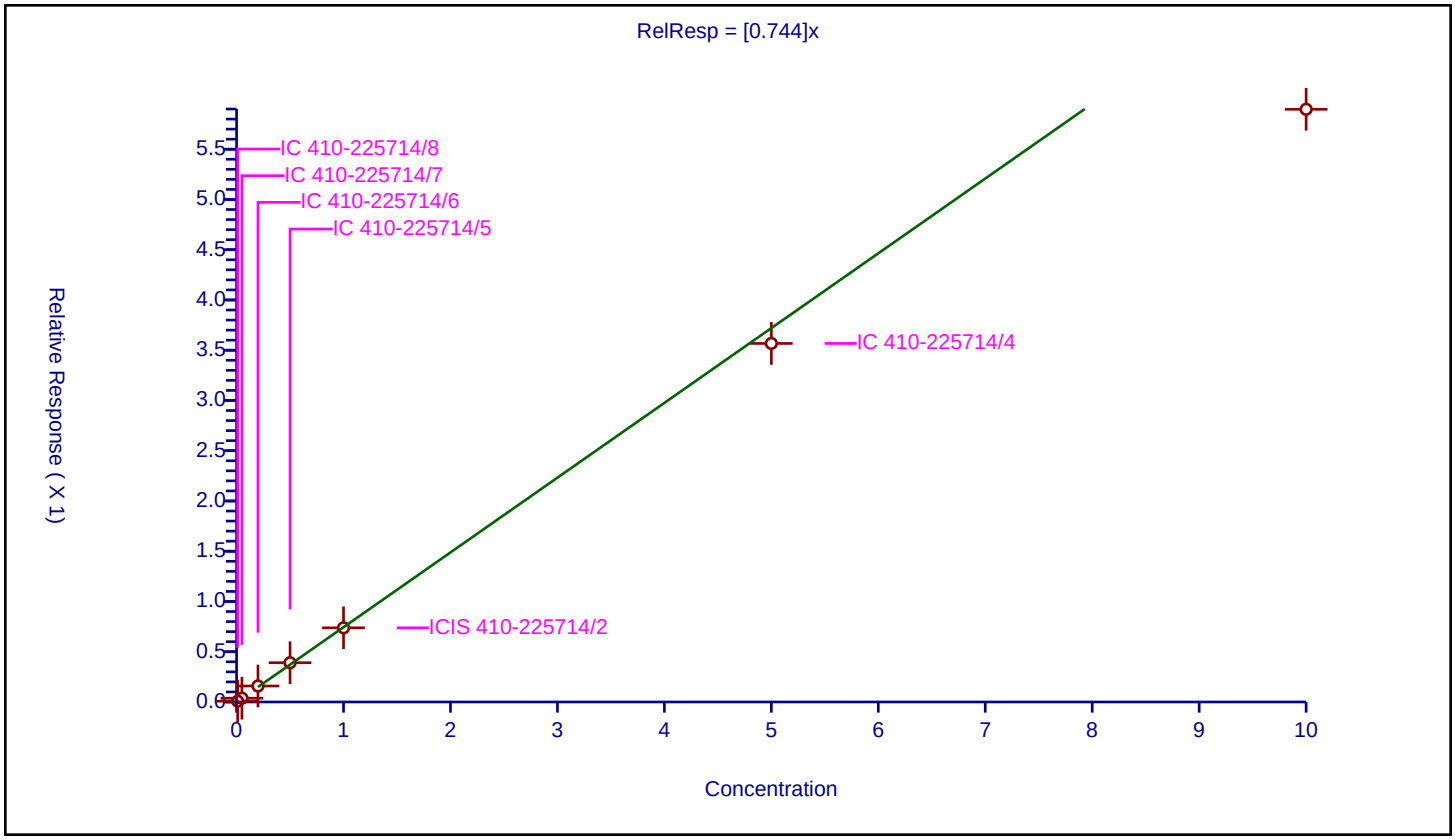
Curve Coefficients

Intercept:	0
Slope:	0.744

Error Coefficients

Standard Error:	722000
Relative Standard Error:	10.5
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.008334	1.0	271553.0	0.833355	Y
2	IC 410-225714/7	0.05	0.037841	1.0	229722.0	0.756828	Y
3	IC 410-225714/6	0.2	0.158975	1.0	245145.0	0.794877	Y
4	IC 410-225714/5	0.5	0.390824	1.0	273489.0	0.781648	Y
5	ICIS 410-225714/2	1.0	0.737978	1.0	378792.0	0.737978	Y
6	IC 410-225714/4	5.0	3.567597	1.0	257949.0	0.713519	Y
7	IC 410-225714/3	10.0	5.897241	1.0	250840.0	0.589724	Y



Calibration / 2-Methylnaphthalene

Curve Type:	Quadratic
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

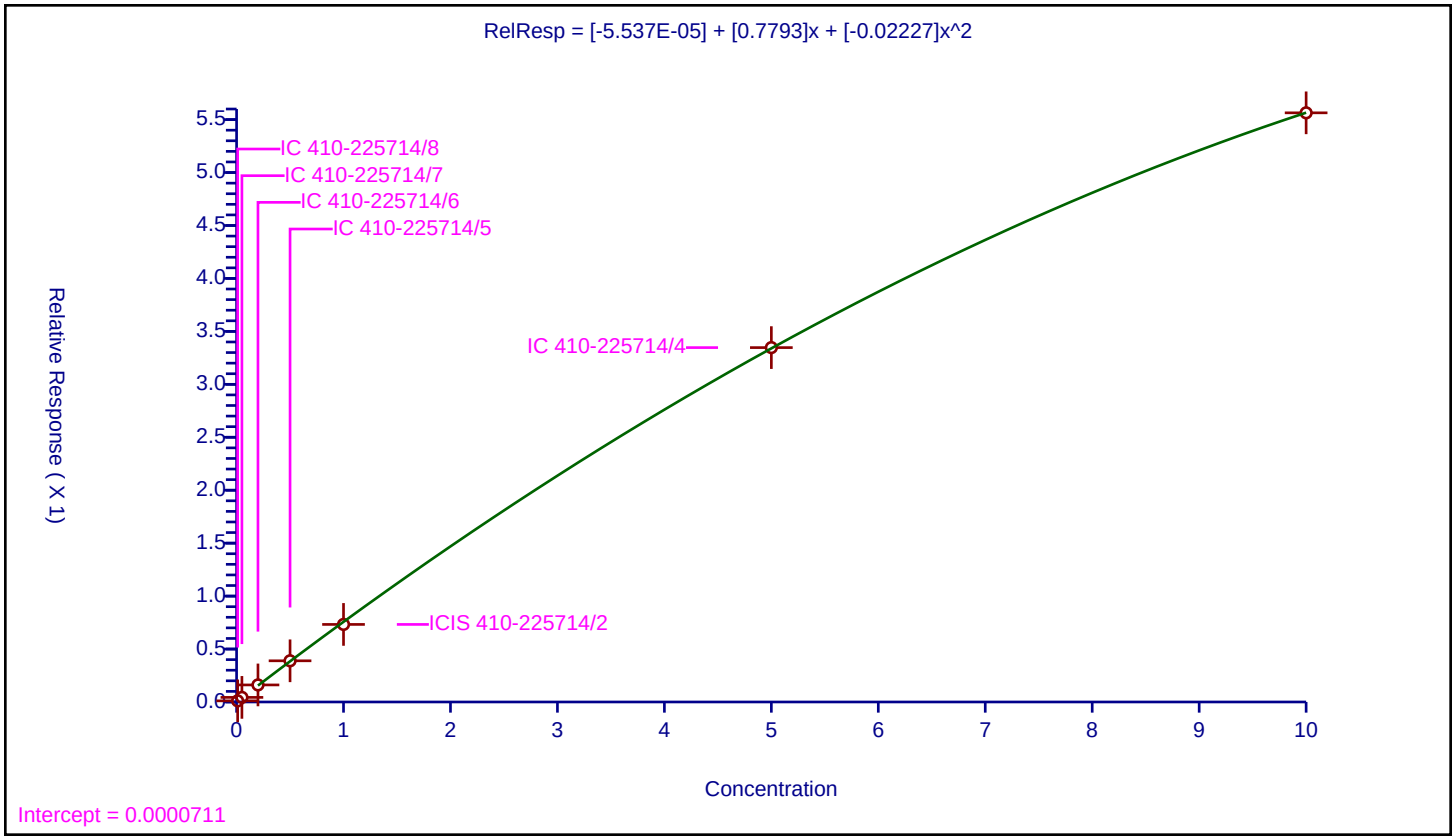
Curve Coefficients

Intercept:	-5.537E-05
Slope:	0.7793
Second Order:	-0.02227

Error Coefficients

Standard Error:	834000
Relative Standard Error:	20.3
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.010735	1.0	271553.0	1.073455	Y
2	IC 410-225714/7	0.05	0.043448	1.0	229722.0	0.868963	Y
3	IC 410-225714/6	0.2	0.161125	1.0	245145.0	0.805625	Y
4	IC 410-225714/5	0.5	0.389007	1.0	273489.0	0.778013	Y
5	ICIS 410-225714/2	1.0	0.73246	1.0	378792.0	0.73246	Y
6	IC 410-225714/4	5.0	3.346809	1.0	257949.0	0.669362	Y
7	IC 410-225714/3	10.0	5.563933	1.0	250840.0	0.556393	Y



Calibration / 1-Methylnaphthalene-d10

Curve Type:	Quadratic
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

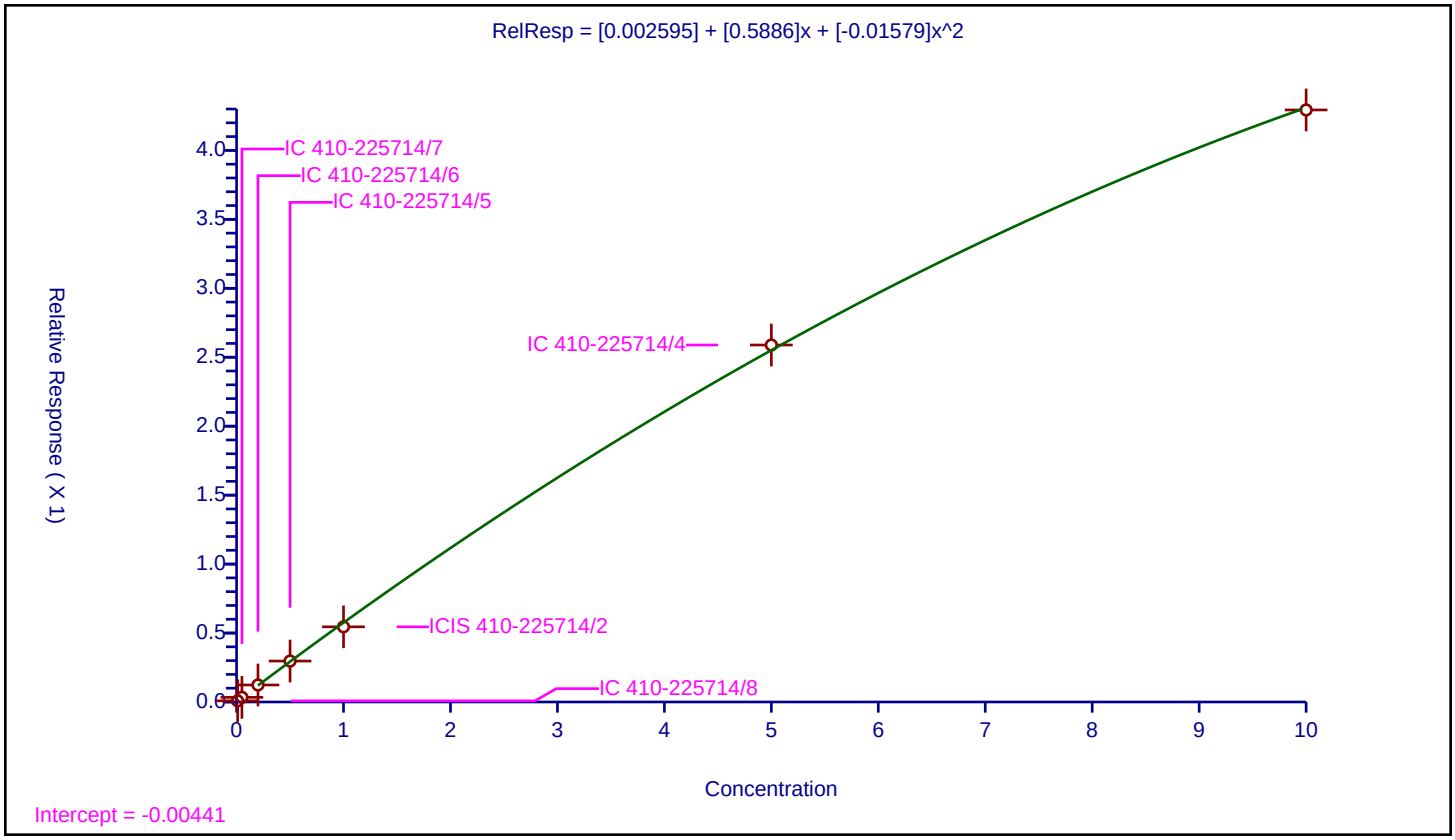
Curve Coefficients

Intercept:	0.002595
Slope:	0.5886
Second Order:	-0.01579

Error Coefficients

Standard Error:	643000
Relative Standard Error:	5.0
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.008164	1.0	271553.0	0.816415	Y
2	IC 410-225714/7	0.05	0.033493	1.0	229722.0	0.669853	Y
3	IC 410-225714/6	0.2	0.12327	1.0	245145.0	0.61635	Y
4	IC 410-225714/5	0.5	0.296974	1.0	273489.0	0.593947	Y
5	ICIS 410-225714/2	1.0	0.54498	1.0	378792.0	0.54498	Y
6	IC 410-225714/4	5.0	2.588612	1.0	257949.0	0.517722	Y
7	IC 410-225714/3	10.0	4.293283	1.0	250840.0	0.429328	Y



Calibration / 1-Methylnaphthalene

Curve Type:	Quadratic
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

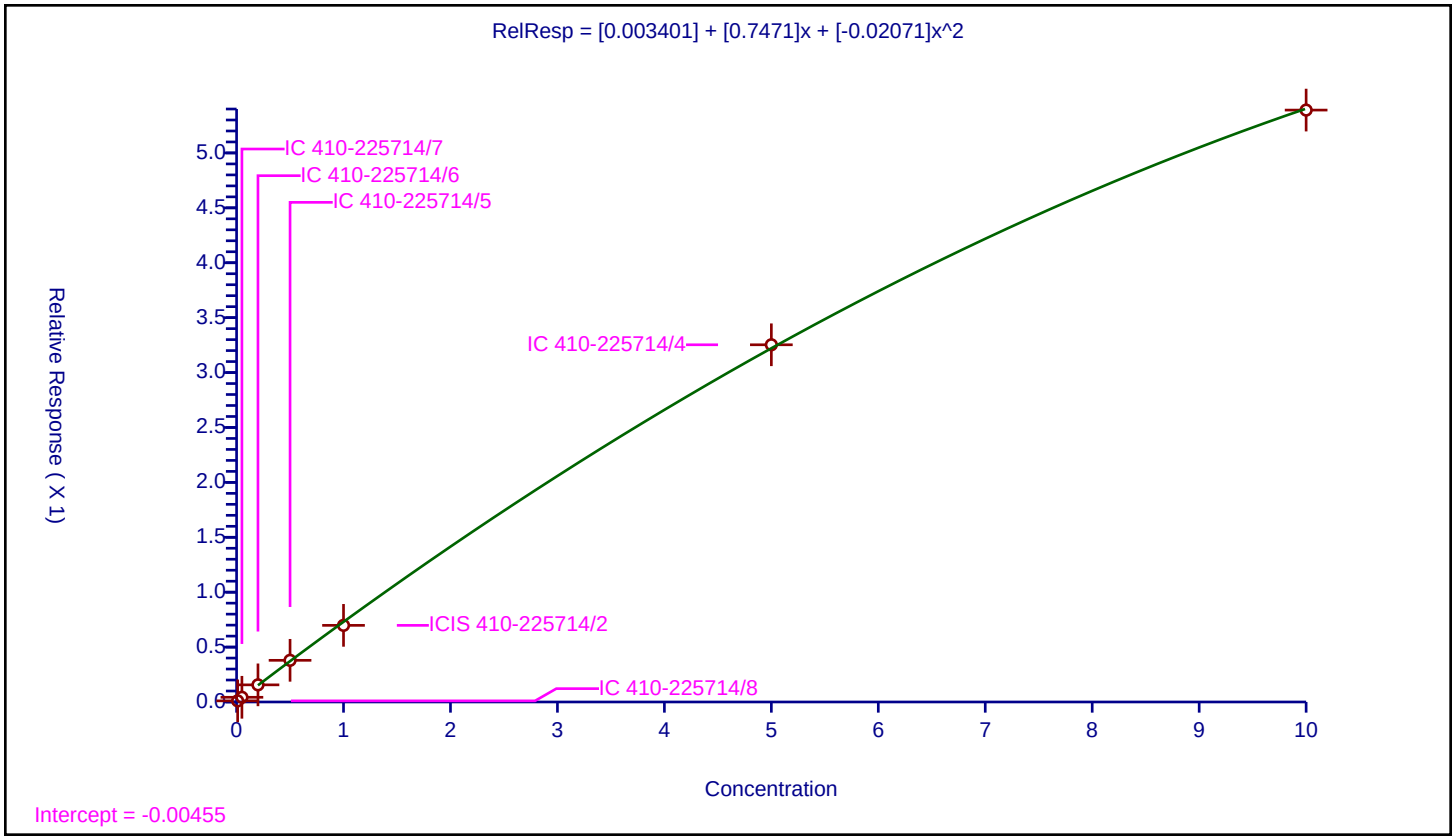
Curve Coefficients

Intercept:	0.003401
Slope:	0.7471
Second Order:	-0.02071

Error Coefficients

Standard Error:	808000
Relative Standard Error:	5.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.010355	1.0	271553.0	1.035525	Y
2	IC 410-225714/7	0.05	0.042865	1.0	229722.0	0.857297	Y
3	IC 410-225714/6	0.2	0.155924	1.0	245145.0	0.77962	Y
4	IC 410-225714/5	0.5	0.379533	1.0	273489.0	0.759065	Y
5	ICIS 410-225714/2	1.0	0.697821	1.0	378792.0	0.697821	Y
6	IC 410-225714/4	5.0	3.253007	1.0	257949.0	0.650601	Y
7	IC 410-225714/3	10.0	5.390241	1.0	250840.0	0.539024	Y



Calibration / Dimethyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

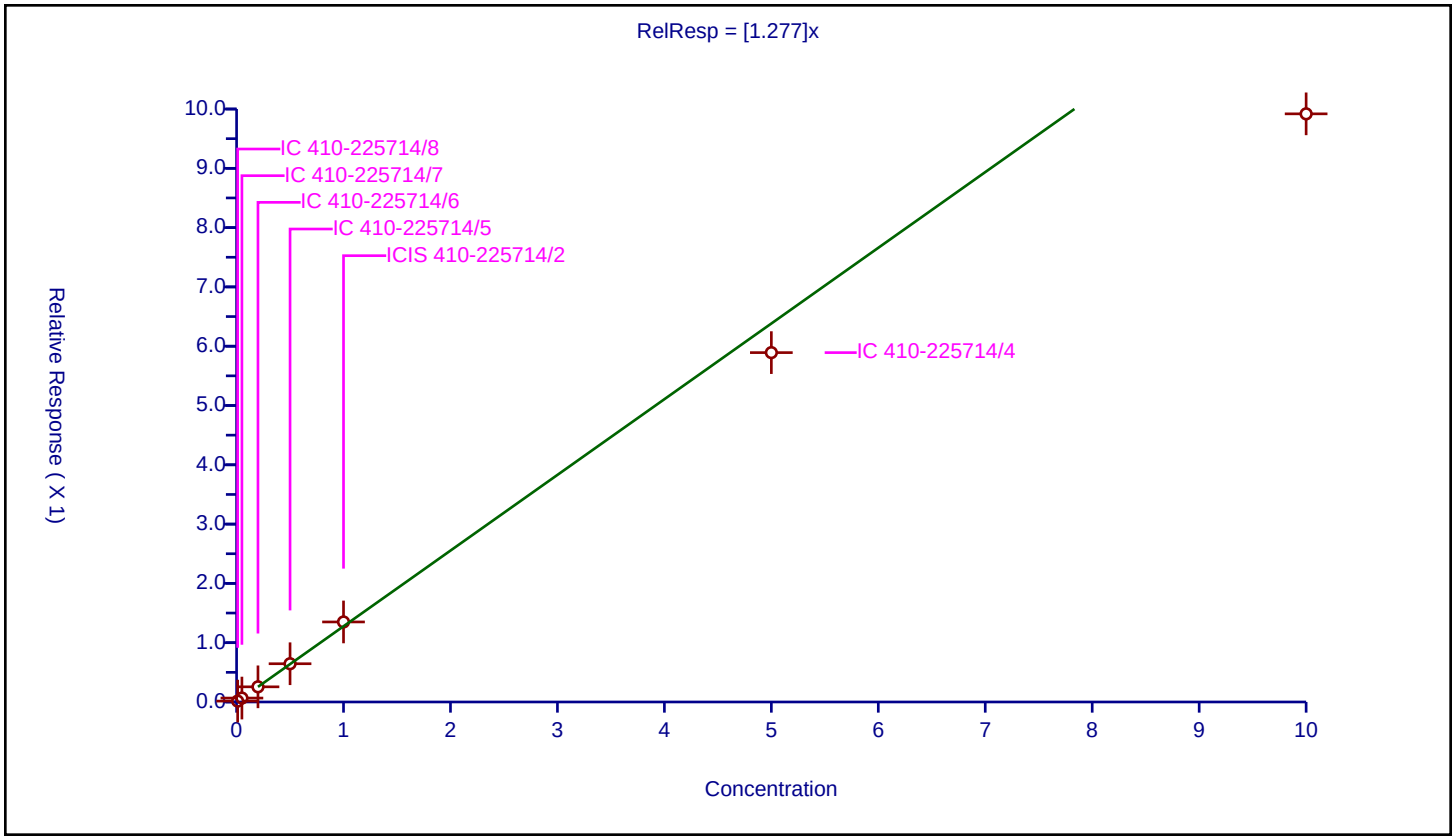
Curve Coefficients

Intercept:	0
Slope:	1.277

Error Coefficients

Standard Error:	818000
Relative Standard Error:	12.8
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.015237	1.0	170767.0	1.523714	Y
2	IC 410-225714/7	0.05	0.066125	1.0	145134.0	1.322502	Y
3	IC 410-225714/6	0.2	0.255815	1.0	158216.0	1.279074	Y
4	IC 410-225714/5	0.5	0.645229	1.0	181221.0	1.290458	Y
5	ICIS 410-225714/2	1.0	1.349766	1.0	243663.0	1.349766	Y
6	IC 410-225714/4	5.0	5.892085	1.0	174063.0	1.178417	Y
7	IC 410-225714/3	10.0	9.918529	1.0	169852.0	0.991853	Y



Calibration / Acenaphthylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

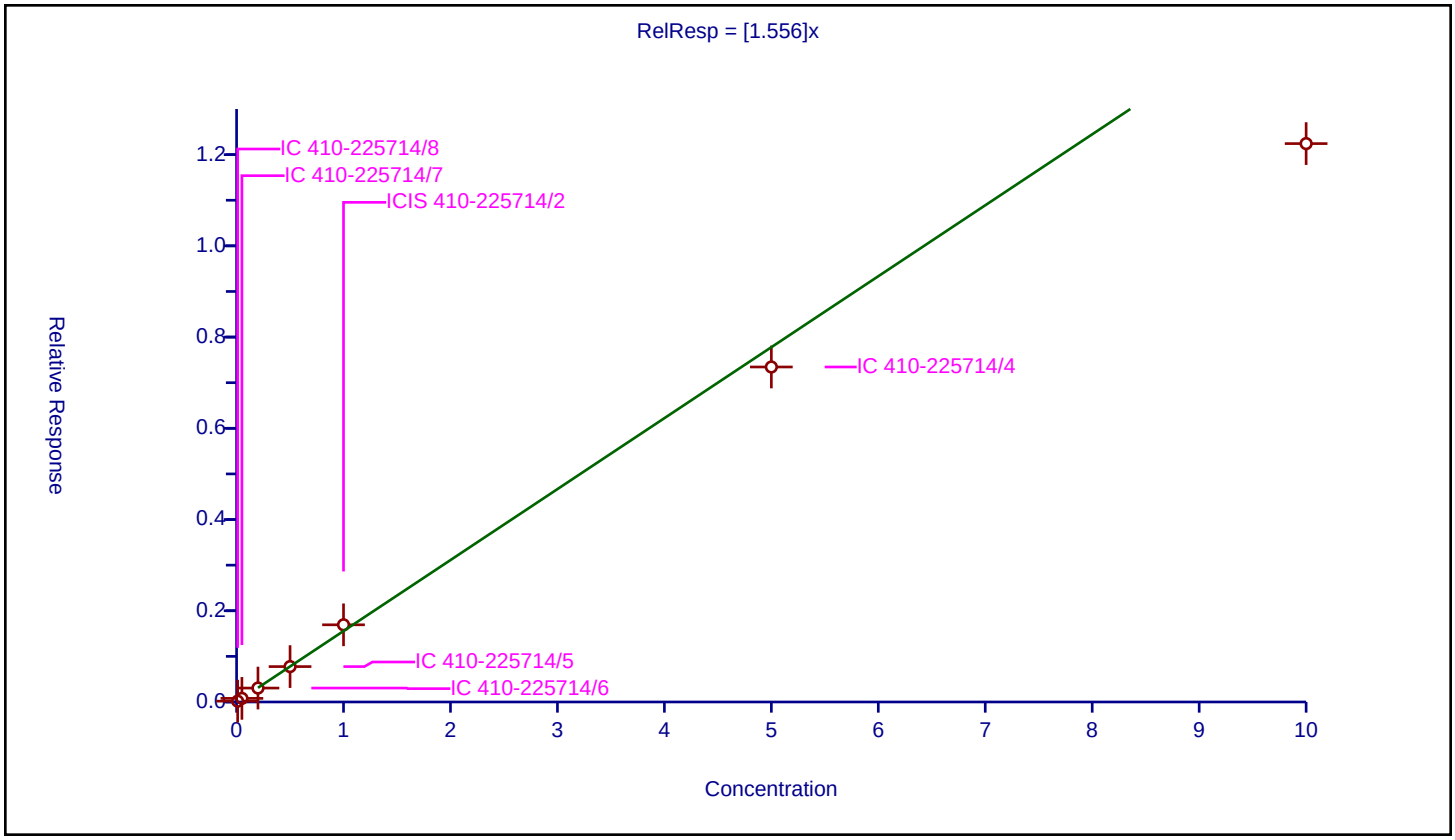
Curve Coefficients

Intercept:	0
Slope:	1.556

Error Coefficients

Standard Error:	1010000
Relative Standard Error:	12.3
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.018393	1.0	170767.0	1.839348	Y
2	IC 410-225714/7	0.05	0.079354	1.0	145134.0	1.587085	Y
3	IC 410-225714/6	0.2	0.305241	1.0	158216.0	1.526205	Y
4	IC 410-225714/5	0.5	0.775937	1.0	181221.0	1.551873	Y
5	ICIS 410-225714/2	1.0	1.691993	1.0	243663.0	1.691993	Y
6	IC 410-225714/4	5.0	7.344168	1.0	174063.0	1.468834	Y
7	IC 410-225714/3	10.0	12.241981	1.0	169852.0	1.224198	Y



Calibration / Acenaphthene

Curve Type:	Quadratic
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

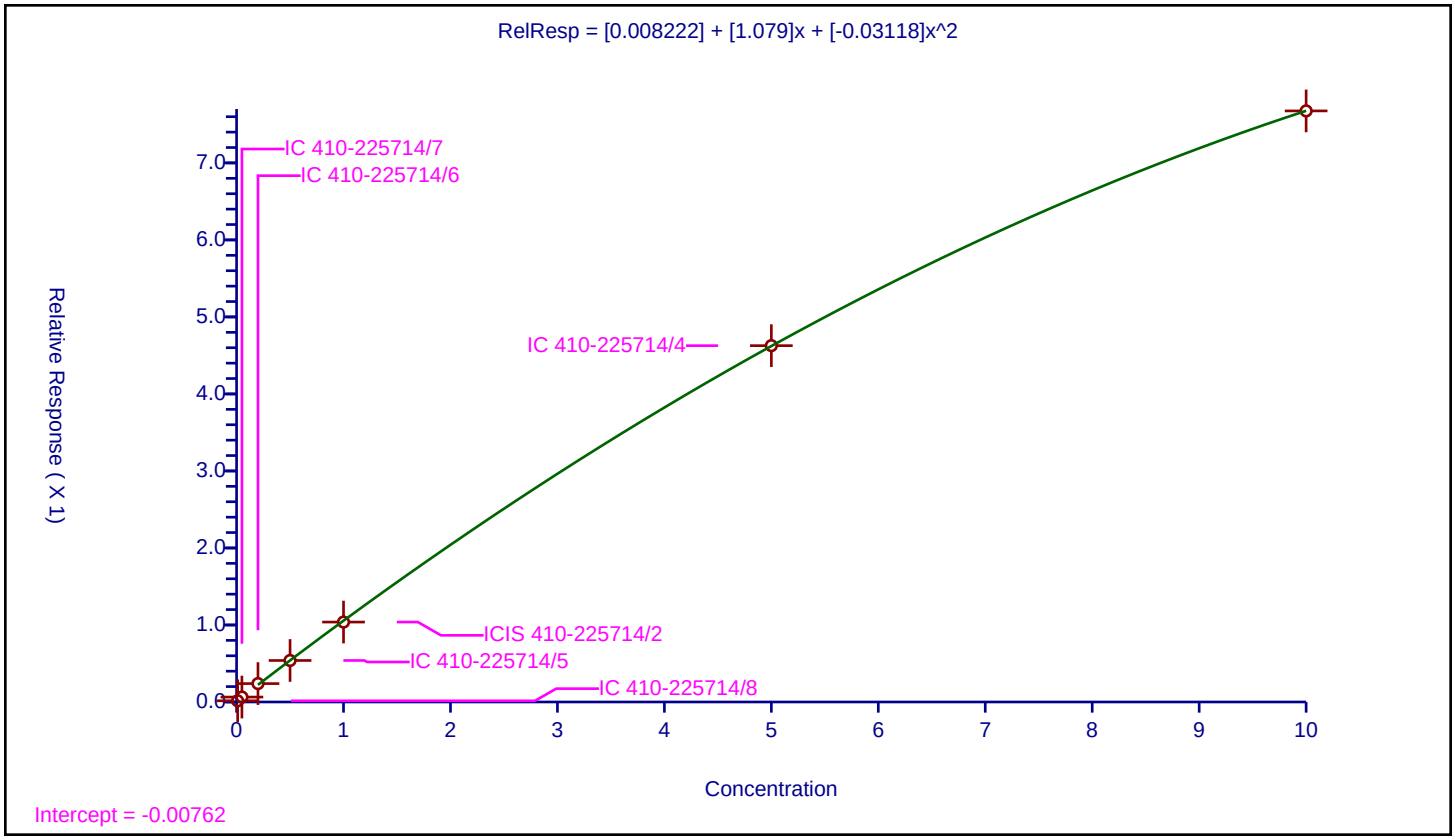
Curve Coefficients

Intercept:	0.008222
Slope:	1.079
Second Order:	-0.03118

Error Coefficients

Standard Error:	778000
Relative Standard Error:	17.8
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.015272	1.0	170767.0	1.527227	Y
2	IC 410-225714/7	0.05	0.06401	1.0	145134.0	1.280196	Y
3	IC 410-225714/6	0.2	0.238882	1.0	158216.0	1.194411	Y
4	IC 410-225714/5	0.5	0.539066	1.0	181221.0	1.078131	Y
5	ICIS 410-225714/2	1.0	1.037884	1.0	243663.0	1.037884	Y
6	IC 410-225714/4	5.0	4.627192	1.0	174063.0	0.925438	Y
7	IC 410-225714/3	10.0	7.675529	1.0	169852.0	0.767553	Y



Calibration / Dibenzofuran

Curve Type:	Quadratic
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

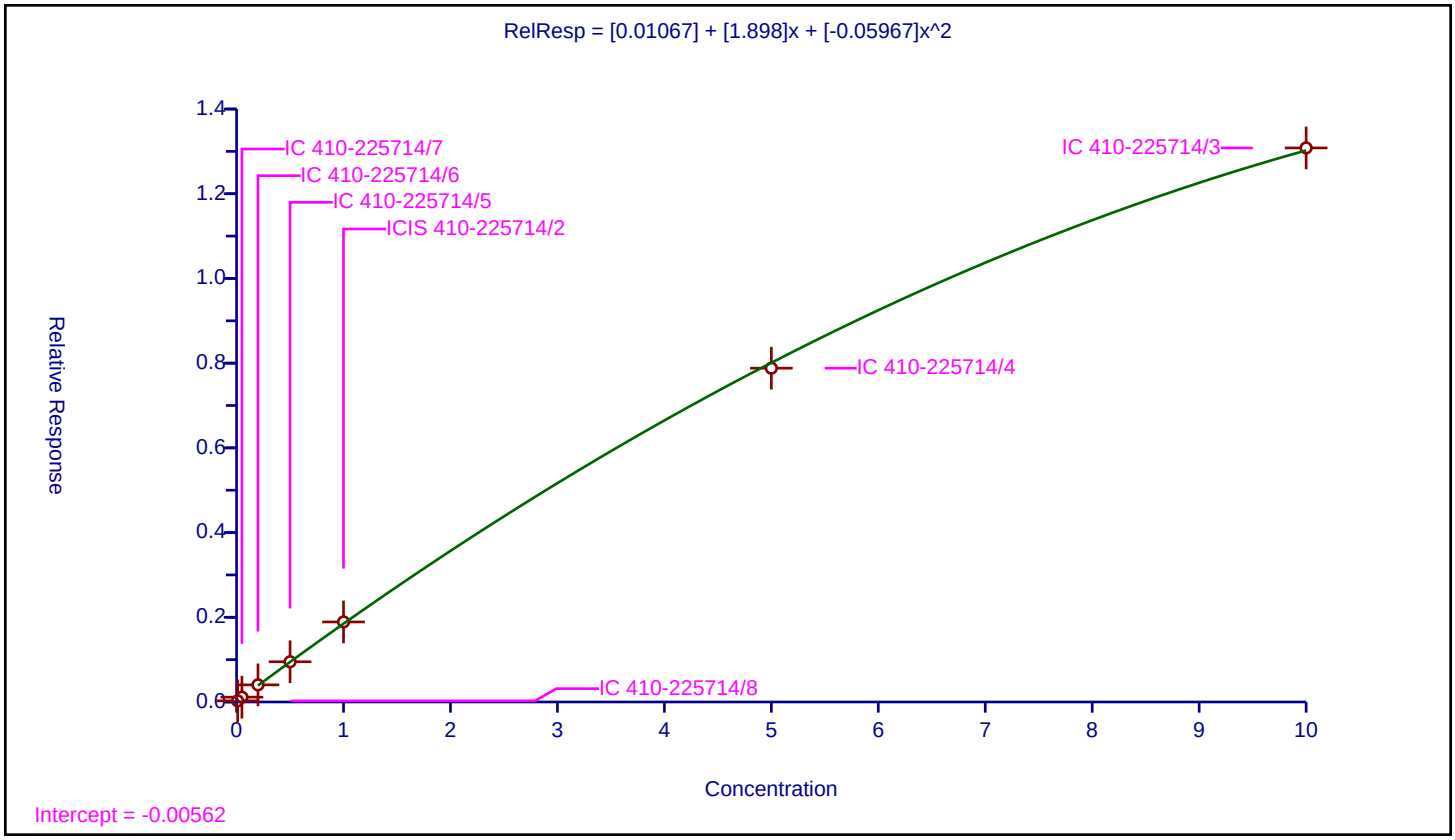
Curve Coefficients

Intercept:	0.01067
Slope:	1.898
Second Order:	-0.05967

Error Coefficients

Standard Error:	1330000
Relative Standard Error:	9.5
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.026691	1.0	170767.0	2.669134	Y
2	IC 410-225714/7	0.05	0.114563	1.0	145134.0	2.291262	Y
3	IC 410-225714/6	0.2	0.40396	1.0	158216.0	2.019802	Y
4	IC 410-225714/5	0.5	0.949724	1.0	181221.0	1.899449	Y
5	ICIS 410-225714/2	1.0	1.889979	1.0	243663.0	1.889979	Y
6	IC 410-225714/4	5.0	7.881078	1.0	174063.0	1.576216	Y
7	IC 410-225714/3	10.0	13.081365	1.0	169852.0	1.308136	Y



Calibration / Diethyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

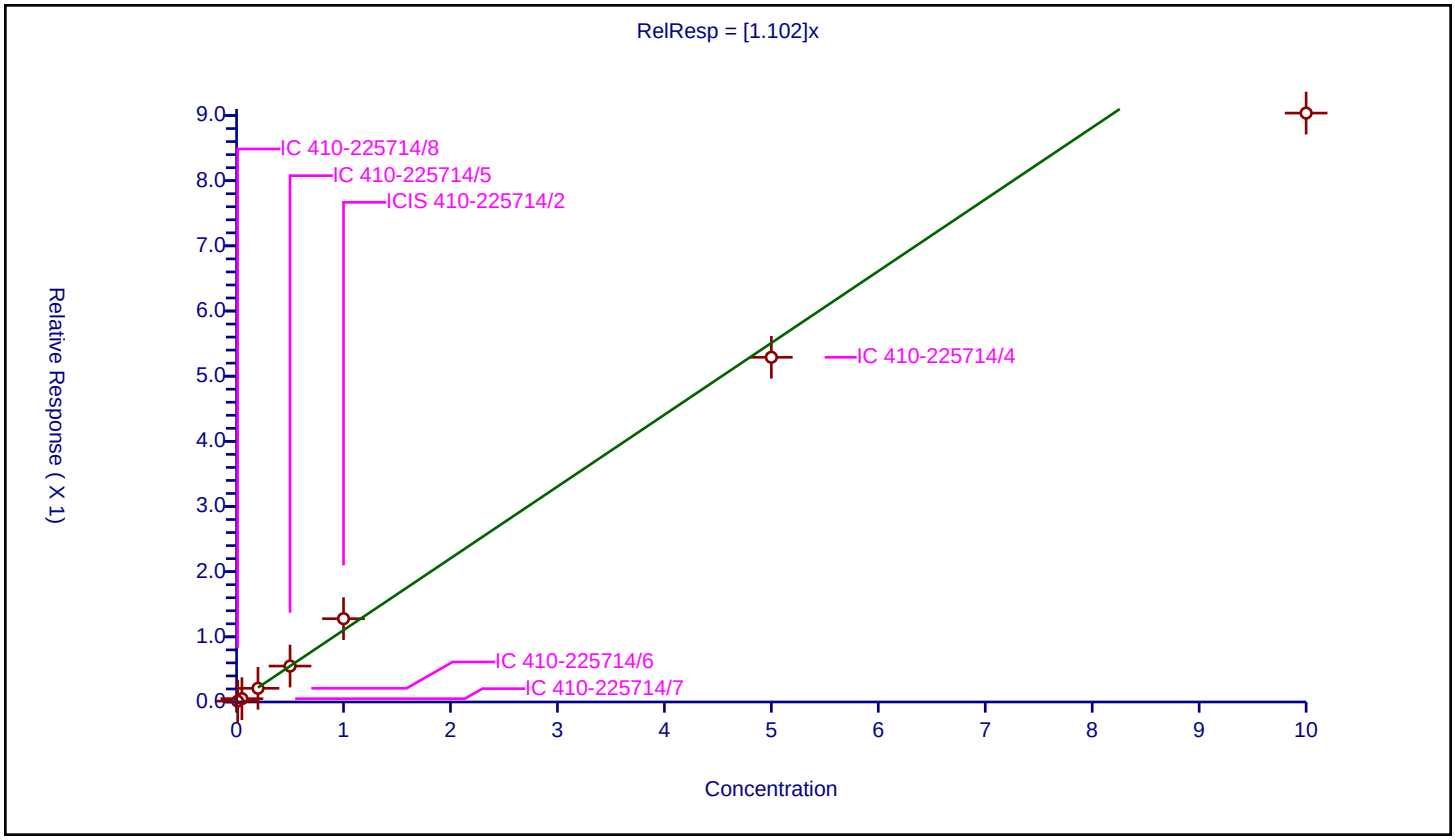
Curve Coefficients

Intercept:	0
Slope:	1.102

Error Coefficients

Standard Error:	743000
Relative Standard Error:	12.8
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.012988	1.0	170767.0	1.298846	Y
2	IC 410-225714/7	0.05	0.051077	1.0	145134.0	1.021539	Y
3	IC 410-225714/6	0.2	0.210175	1.0	158216.0	1.050873	Y
4	IC 410-225714/5	0.5	0.551371	1.0	181221.0	1.102742	Y
5	ICIS 410-225714/2	1.0	1.278122	1.0	243663.0	1.278122	Y
6	IC 410-225714/4	5.0	5.289993	1.0	174063.0	1.057999	Y
7	IC 410-225714/3	10.0	9.037444	1.0	169852.0	0.903744	Y



Calibration / Fluorene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

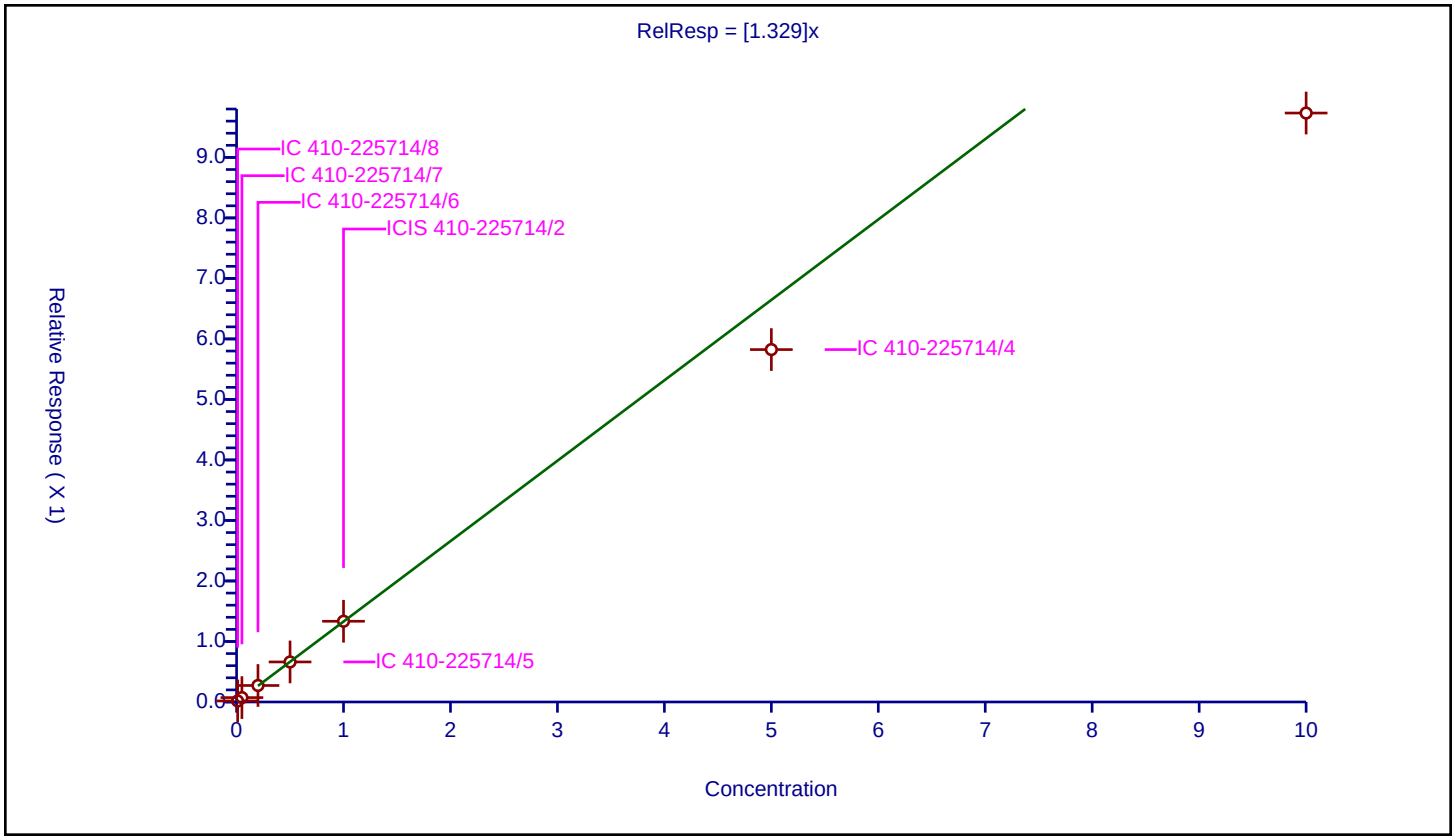
Curve Coefficients

Intercept:	0
Slope:	1.329

Error Coefficients

Standard Error:	804000
Relative Standard Error:	16.9
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.964

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.016935	1.0	170767.0	1.693536	Y
2	IC 410-225714/7	0.05	0.072561	1.0	145134.0	1.451211	Y
3	IC 410-225714/6	0.2	0.272583	1.0	158216.0	1.362915	Y
4	IC 410-225714/5	0.5	0.661524	1.0	181221.0	1.323048	Y
5	ICIS 410-225714/2	1.0	1.334183	1.0	243663.0	1.334183	Y
6	IC 410-225714/4	5.0	5.824202	1.0	174063.0	1.16484	Y
7	IC 410-225714/3	10.0	9.733274	1.0	169852.0	0.973327	Y



Calibration / N-Nitrosodiphenylamine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

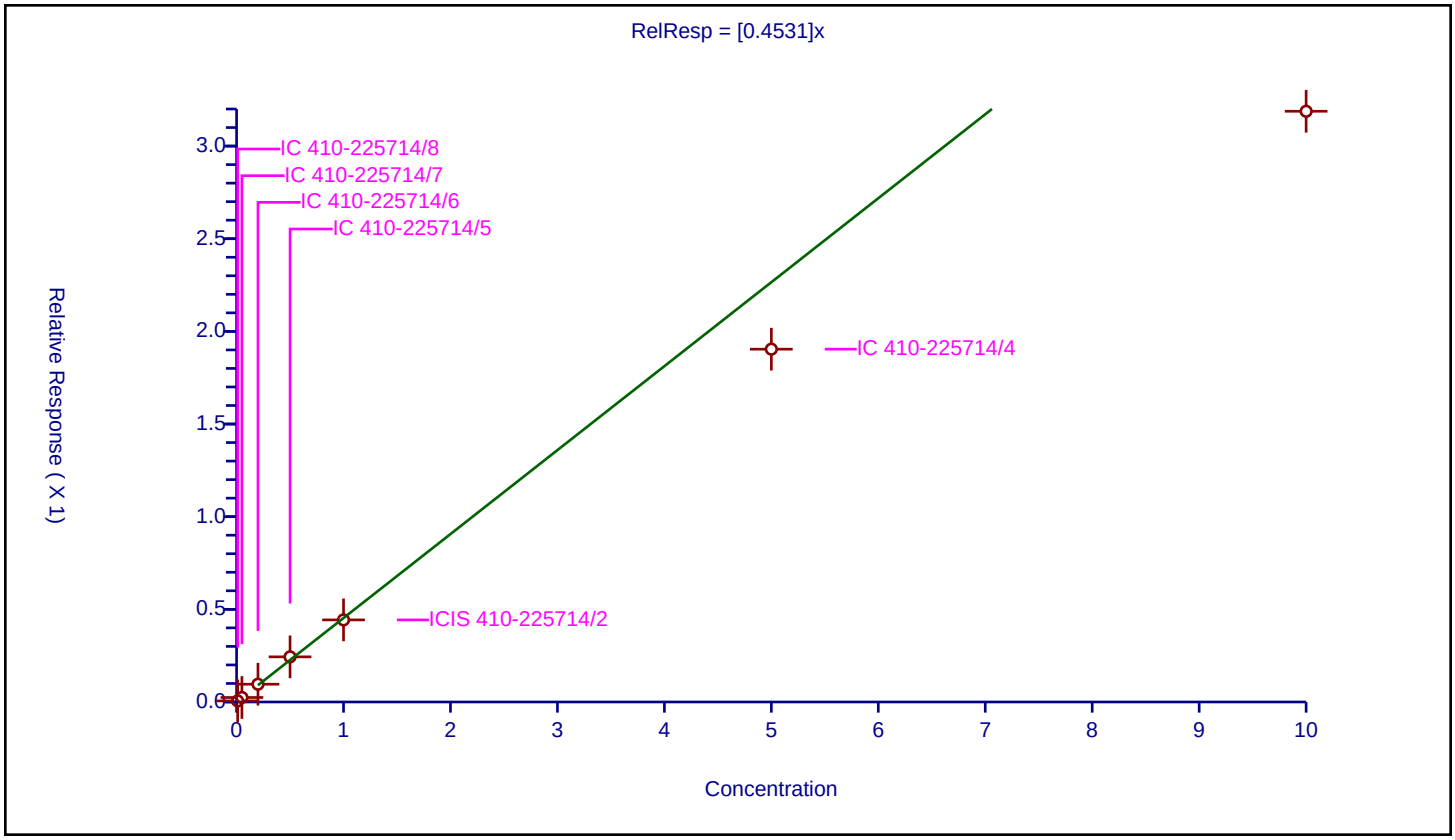
Curve Coefficients

Intercept:	0
Slope:	0.4531

Error Coefficients

Standard Error:	496000
Relative Standard Error:	18.4
Correlation Coefficient:	0.981
Coefficient of Determination (Adjusted):	0.958

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.005769	1.0	309397.0	0.576929	Y
2	IC 410-225714/7	0.05	0.024262	1.0	270625.0	0.485247	Y
3	IC 410-225714/6	0.2	0.095944	1.0	291971.0	0.479722	Y
4	IC 410-225714/5	0.5	0.243537	1.0	340548.0	0.487074	Y
5	ICIS 410-225714/2	1.0	0.442968	1.0	488638.0	0.442968	Y
6	IC 410-225714/4	5.0	1.903969	1.0	328383.0	0.380794	Y
7	IC 410-225714/3	10.0	3.187884	1.0	318026.0	0.318788	Y



Calibration / Hexachlorobenzene

Curve Type:	Quadratic
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

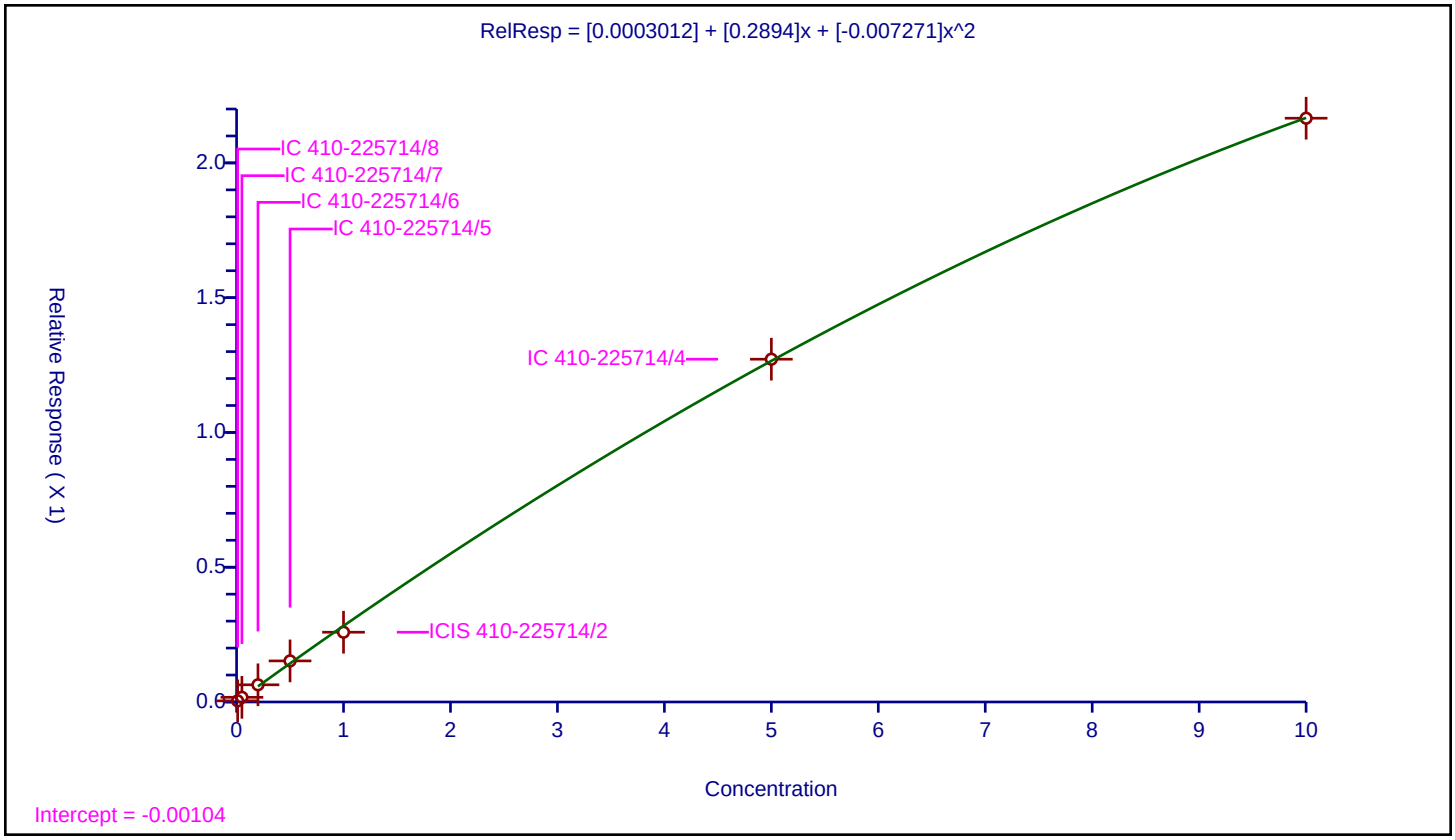
Curve Coefficients

Intercept:	0.0003012
Slope:	0.2894
Second Order:	-0.007271

Error Coefficients

Standard Error:	409000
Relative Standard Error:	21.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.004228	1.0	309397.0	0.422758	Y
2	IC 410-225714/7	0.05	0.017367	1.0	270625.0	0.347344	Y
3	IC 410-225714/6	0.2	0.063756	1.0	291971.0	0.318782	Y
4	IC 410-225714/5	0.5	0.152396	1.0	340548.0	0.304791	Y
5	ICIS 410-225714/2	1.0	0.258819	1.0	488638.0	0.258819	Y
6	IC 410-225714/4	5.0	1.271765	1.0	328383.0	0.254353	Y
7	IC 410-225714/3	10.0	2.165873	1.0	318026.0	0.216587	Y



Calibration / Phenanthrene

Curve Type:	Quadratic
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

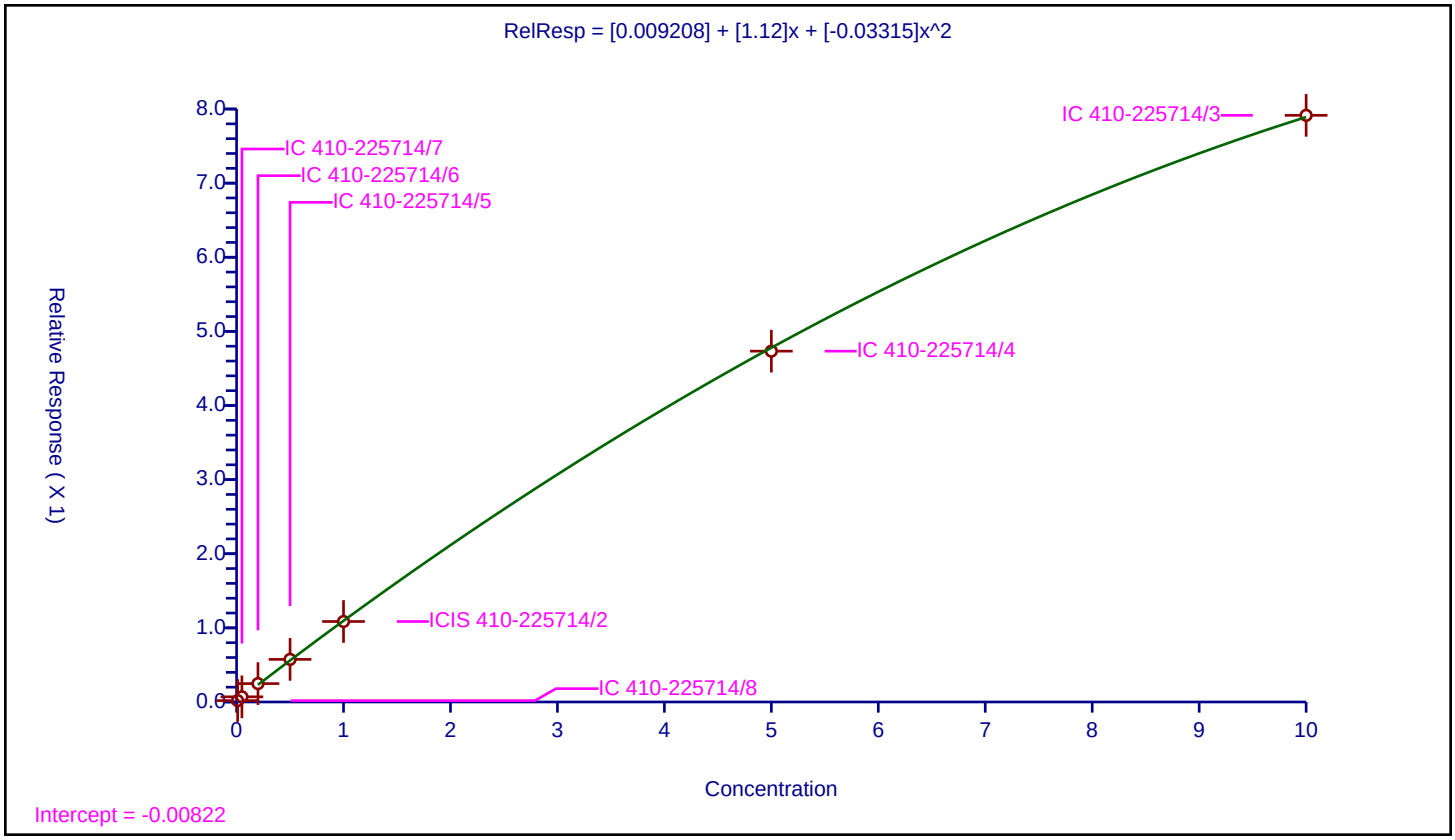
Curve Coefficients

Intercept:	0.009208
Slope:	1.12
Second Order:	-0.03315

Error Coefficients

Standard Error:	1510000
Relative Standard Error:	10.0
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.018559	1.0	309397.0	1.855868	Y
2	IC 410-225714/7	0.05	0.069739	1.0	270625.0	1.394771	Y
3	IC 410-225714/6	0.2	0.247963	1.0	291971.0	1.239815	Y
4	IC 410-225714/5	0.5	0.574794	1.0	340548.0	1.149588	Y
5	ICIS 410-225714/2	1.0	1.085796	1.0	488638.0	1.085796	Y
6	IC 410-225714/4	5.0	4.733473	1.0	328383.0	0.946695	Y
7	IC 410-225714/3	10.0	7.914564	1.0	318026.0	0.791456	Y



Calibration / Anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

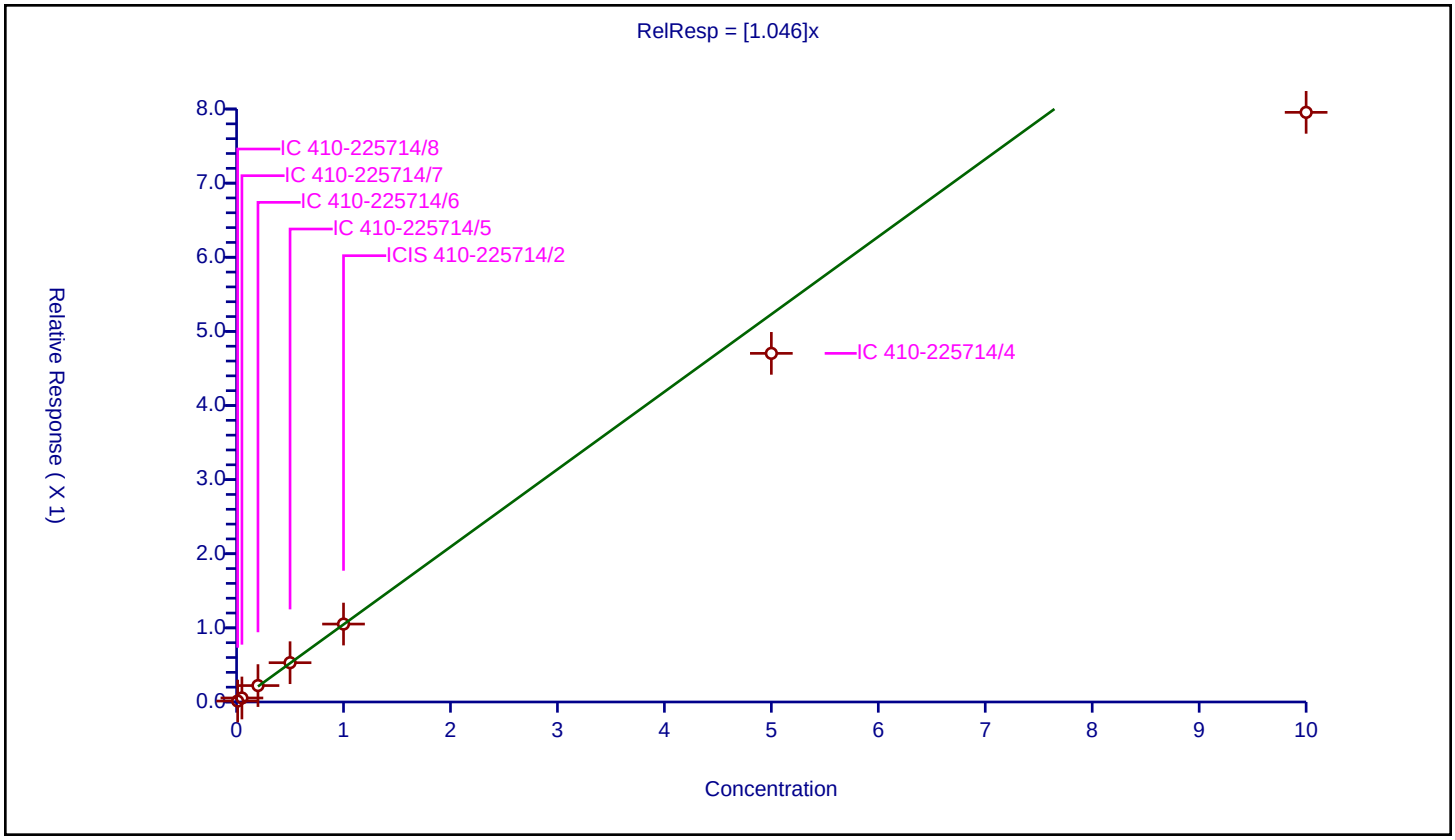
Curve Coefficients

Intercept:	0
Slope:	1.046

Error Coefficients

Standard Error:	1230000
Relative Standard Error:	14.4
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.975

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.012828	1.0	309397.0	1.282818	Y
2	IC 410-225714/7	0.05	0.054285	1.0	270625.0	1.085709	Y
3	IC 410-225714/6	0.2	0.221337	1.0	291971.0	1.106685	Y
4	IC 410-225714/5	0.5	0.530239	1.0	340548.0	1.060479	Y
5	ICIS 410-225714/2	1.0	1.051247	1.0	488638.0	1.051247	Y
6	IC 410-225714/4	5.0	4.703514	1.0	328383.0	0.940703	Y
7	IC 410-225714/3	10.0	7.955195	1.0	318026.0	0.79552	Y



Calibration / Di-n-butyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

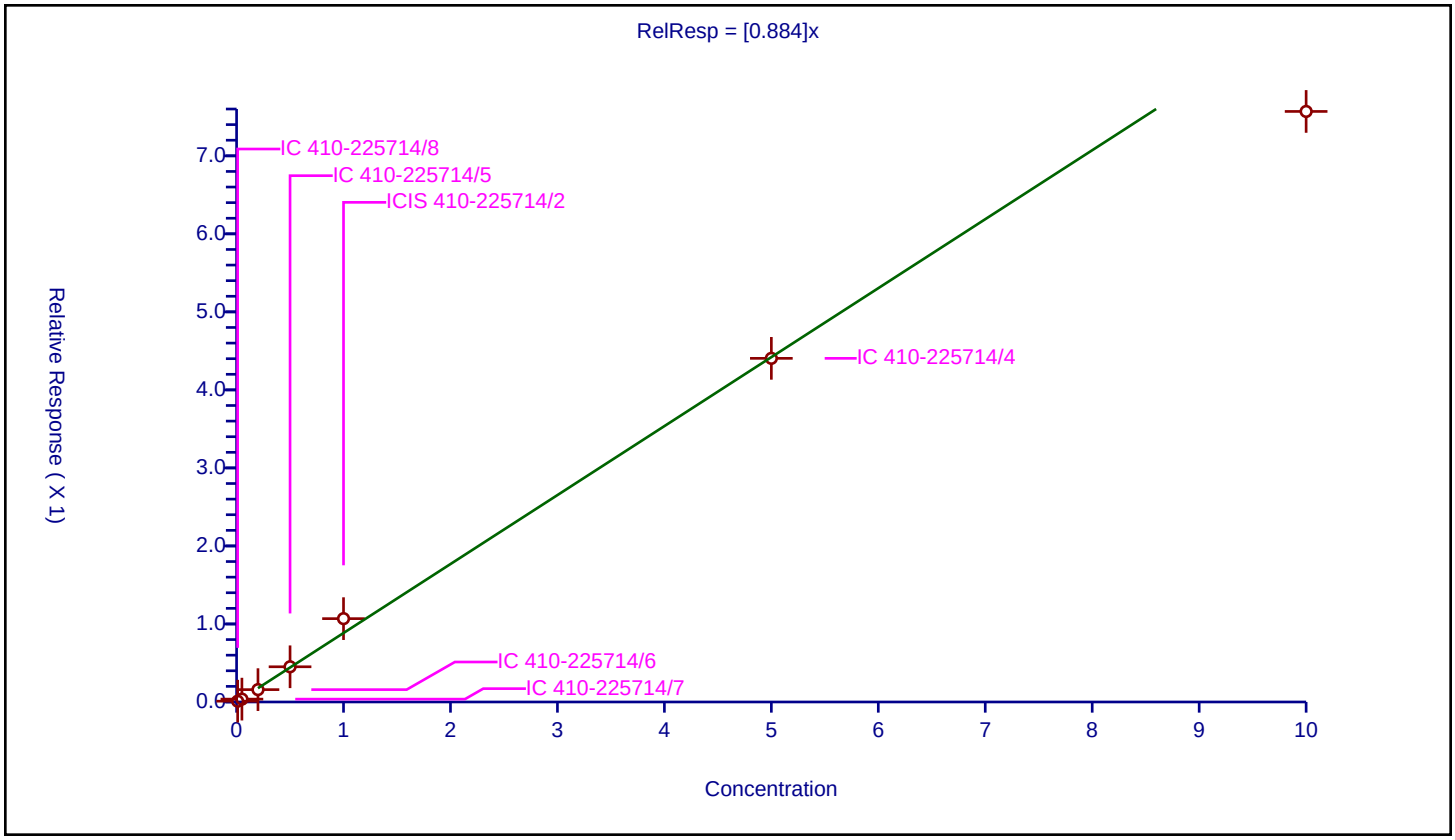
Curve Coefficients

Intercept:	0
Slope:	0.884

Error Coefficients

Standard Error:	1170000
Relative Standard Error:	15.4
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.010543	1.0	309397.0	1.054309	Y
2	IC 410-225714/7	0.05	0.036656	1.0	270625.0	0.733118	Y
3	IC 410-225714/6	0.2	0.158382	1.0	291971.0	0.791911	Y
4	IC 410-225714/5	0.5	0.451226	1.0	340548.0	0.902451	Y
5	ICIS 410-225714/2	1.0	1.068128	1.0	488638.0	1.068128	Y
6	IC 410-225714/4	5.0	4.404284	1.0	328383.0	0.880857	Y
7	IC 410-225714/3	10.0	7.568935	1.0	318026.0	0.756893	Y



Calibration / Fluoranthene-d10 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

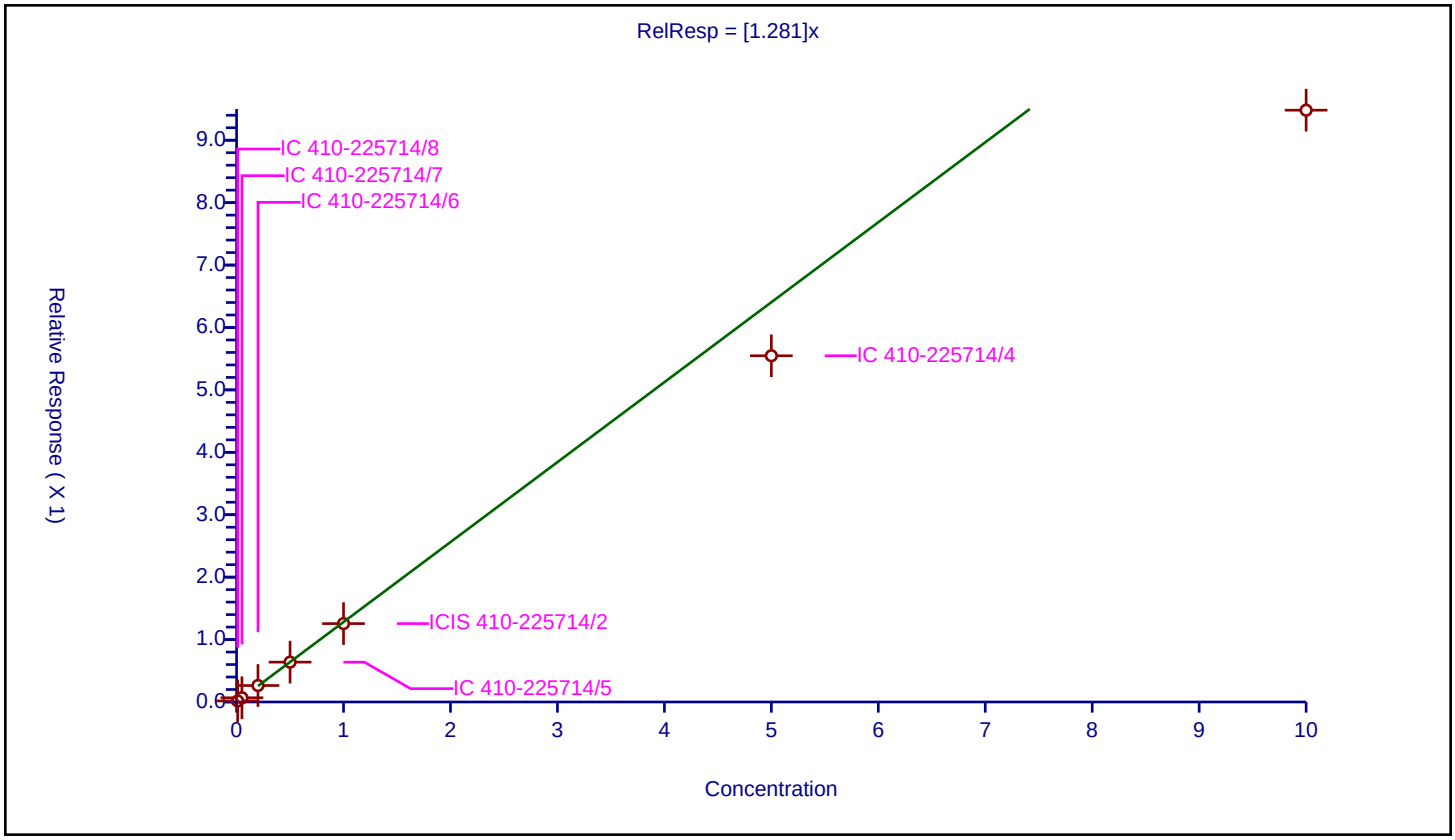
Curve Coefficients

Intercept:	0
Slope:	1.281

Error Coefficients

Standard Error:	1460000
Relative Standard Error:	18.2
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.957

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.017056	1.0	309397.0	1.705576	Y
2	IC 410-225714/7	0.05	0.06761	1.0	270625.0	1.352203	Y
3	IC 410-225714/6	0.2	0.263653	1.0	291971.0	1.318264	Y
4	IC 410-225714/5	0.5	0.638312	1.0	340548.0	1.276625	Y
5	ICIS 410-225714/2	1.0	1.256012	1.0	488638.0	1.256012	Y
6	IC 410-225714/4	5.0	5.546989	1.0	328383.0	1.109398	Y
7	IC 410-225714/3	10.0	9.481108	1.0	318026.0	0.948111	Y



Calibration / Fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

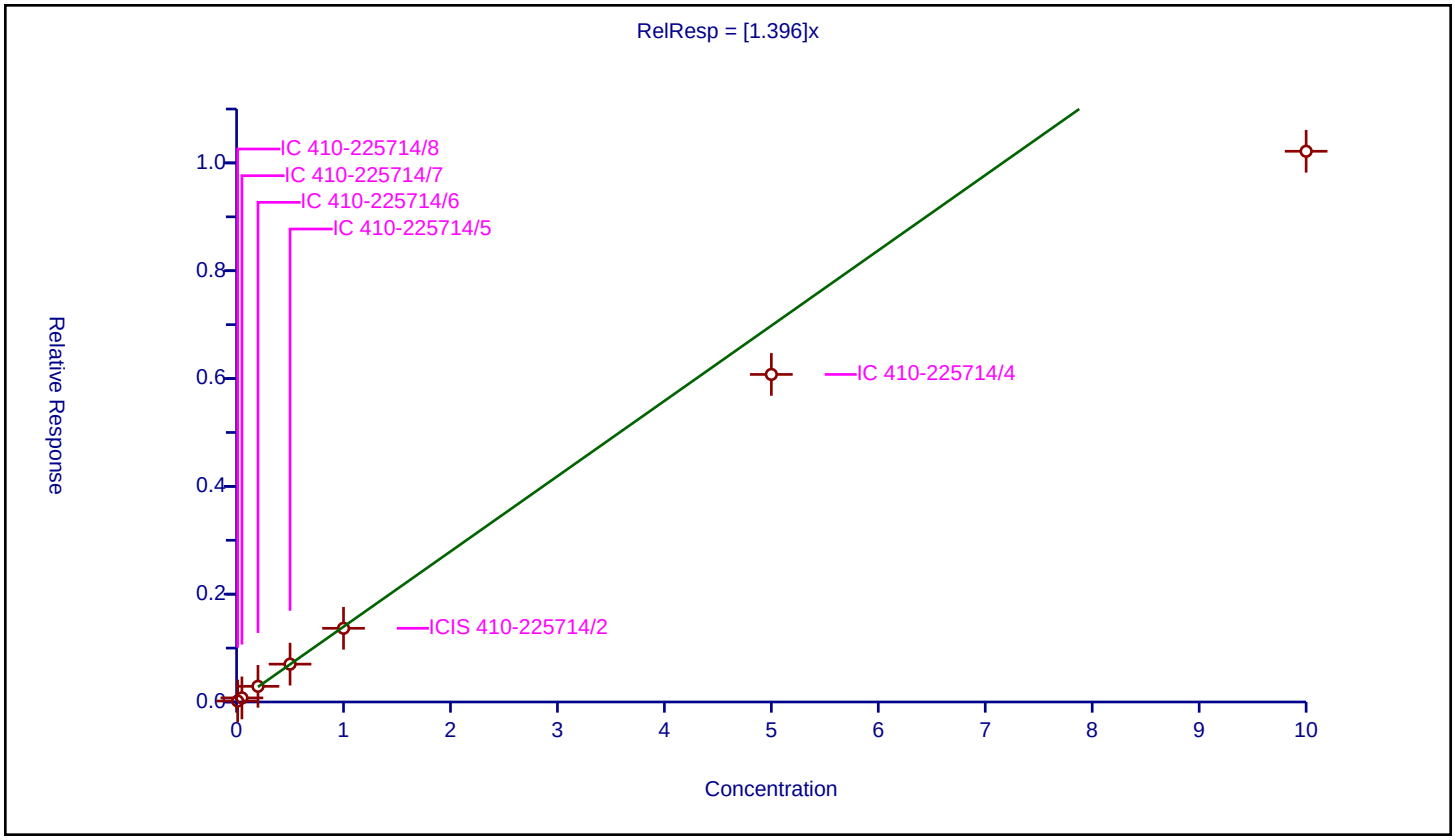
Curve Coefficients

Intercept:	0
Slope:	1.396

Error Coefficients

Standard Error:	1580000
Relative Standard Error:	17.3
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.962

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.017951	1.0	309397.0	1.795105	Y
2	IC 410-225714/7	0.05	0.075873	1.0	270625.0	1.51745	Y
3	IC 410-225714/6	0.2	0.290488	1.0	291971.0	1.452439	Y
4	IC 410-225714/5	0.5	0.702048	1.0	340548.0	1.404096	Y
5	ICIS 410-225714/2	1.0	1.366838	1.0	488638.0	1.366838	Y
6	IC 410-225714/4	5.0	6.076438	1.0	328383.0	1.215288	Y
7	IC 410-225714/3	10.0	10.216316	1.0	318026.0	1.021632	Y



Calibration / Pyrene

Curve Type:	Quadratic
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

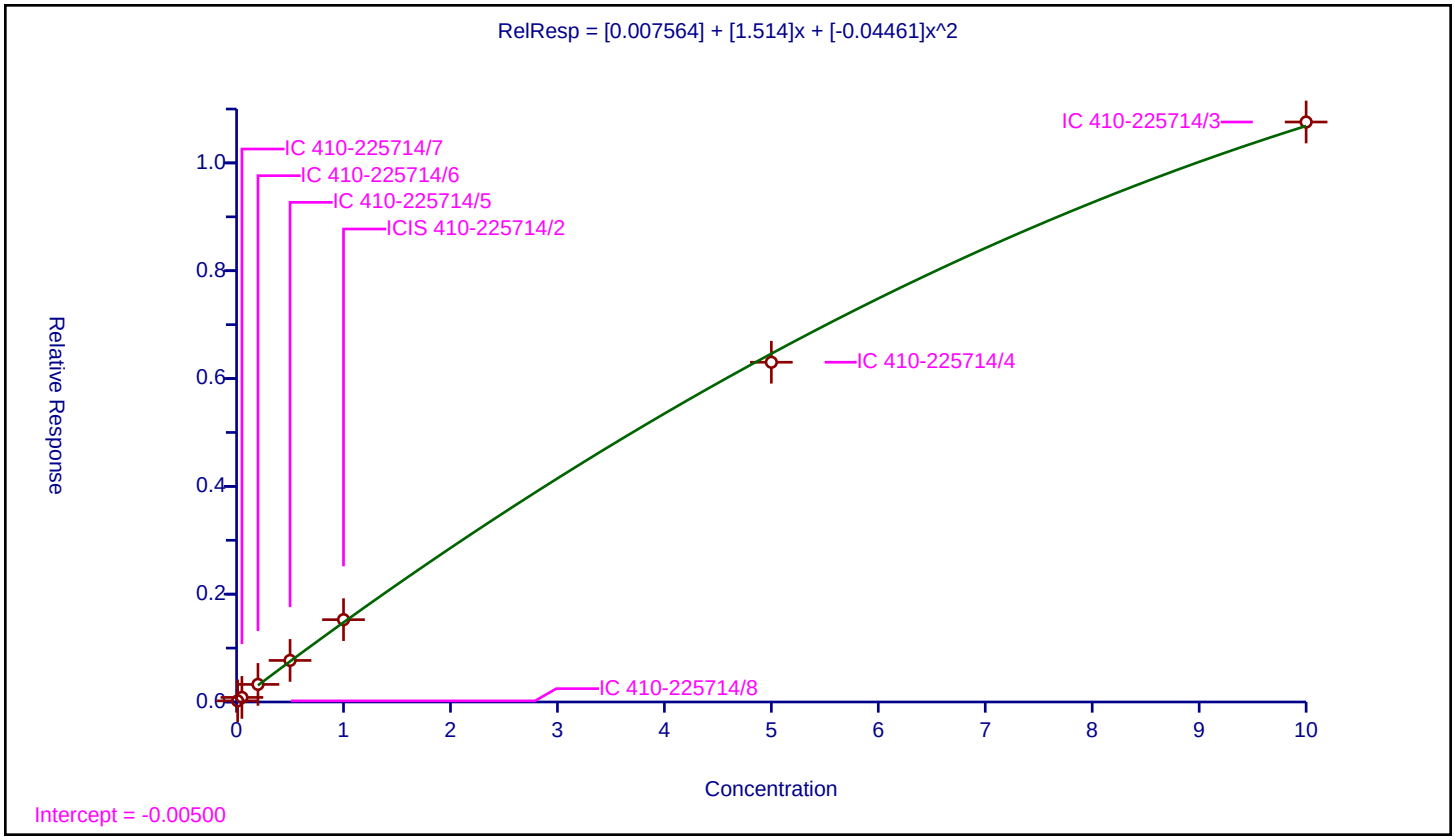
Curve Coefficients

Intercept:	0.007564
Slope:	1.514
Second Order:	-0.04461

Error Coefficients

Standard Error:	2020000
Relative Standard Error:	7.4
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.020849	1.0	292241.0	2.084923	Y
2	IC 410-225714/7	0.05	0.084859	1.0	246810.0	1.697176	Y
3	IC 410-225714/6	0.2	0.32641	1.0	272804.0	1.632051	Y
4	IC 410-225714/5	0.5	0.77099	1.0	322772.0	1.54198	Y
5	ICIS 410-225714/2	1.0	1.527531	1.0	461262.0	1.527531	Y
6	IC 410-225714/4	5.0	6.302423	1.0	325280.0	1.260485	Y
7	IC 410-225714/3	10.0	10.759092	1.0	315116.0	1.075909	Y



Calibration / Butyl benzyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

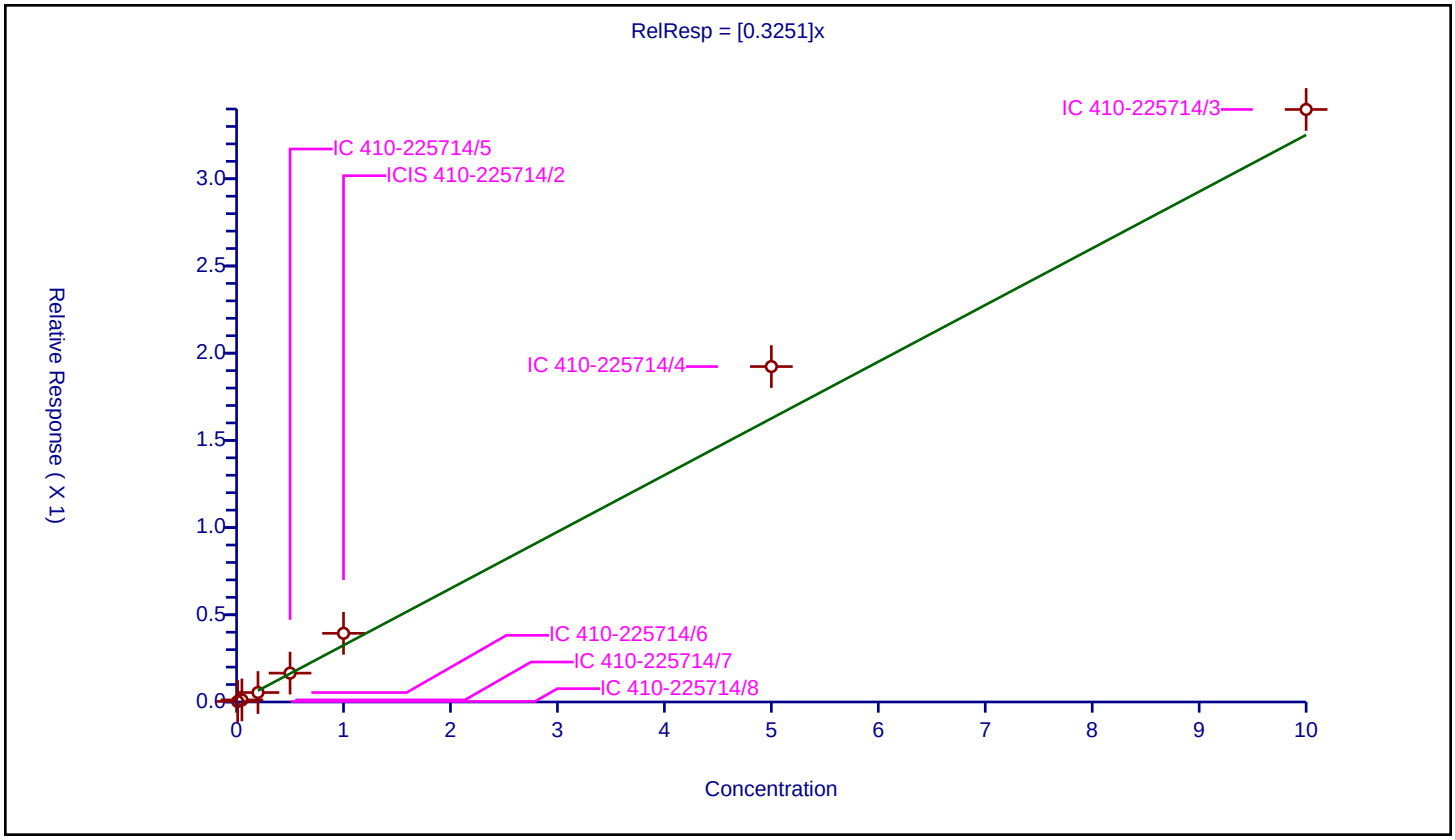
Curve Coefficients

Intercept:	0
Slope:	0.3251

Error Coefficients

Standard Error:	512000
Relative Standard Error:	17.2
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.969

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.003155	1.0	292241.0	0.315493	Y
2	IC 410-225714/7	0.05	0.012025	1.0	246810.0	0.240509	Y
3	IC 410-225714/6	0.2	0.054134	1.0	272804.0	0.270671	Y
4	IC 410-225714/5	0.5	0.165544	1.0	322772.0	0.331088	Y
5	ICIS 410-225714/2	1.0	0.393809	1.0	461262.0	0.393809	Y
6	IC 410-225714/4	5.0	1.923238	1.0	325280.0	0.384648	Y
7	IC 410-225714/3	10.0	3.397355	1.0	315116.0	0.339736	Y



Calibration / Bis(2-ethylhexyl) phthalate

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

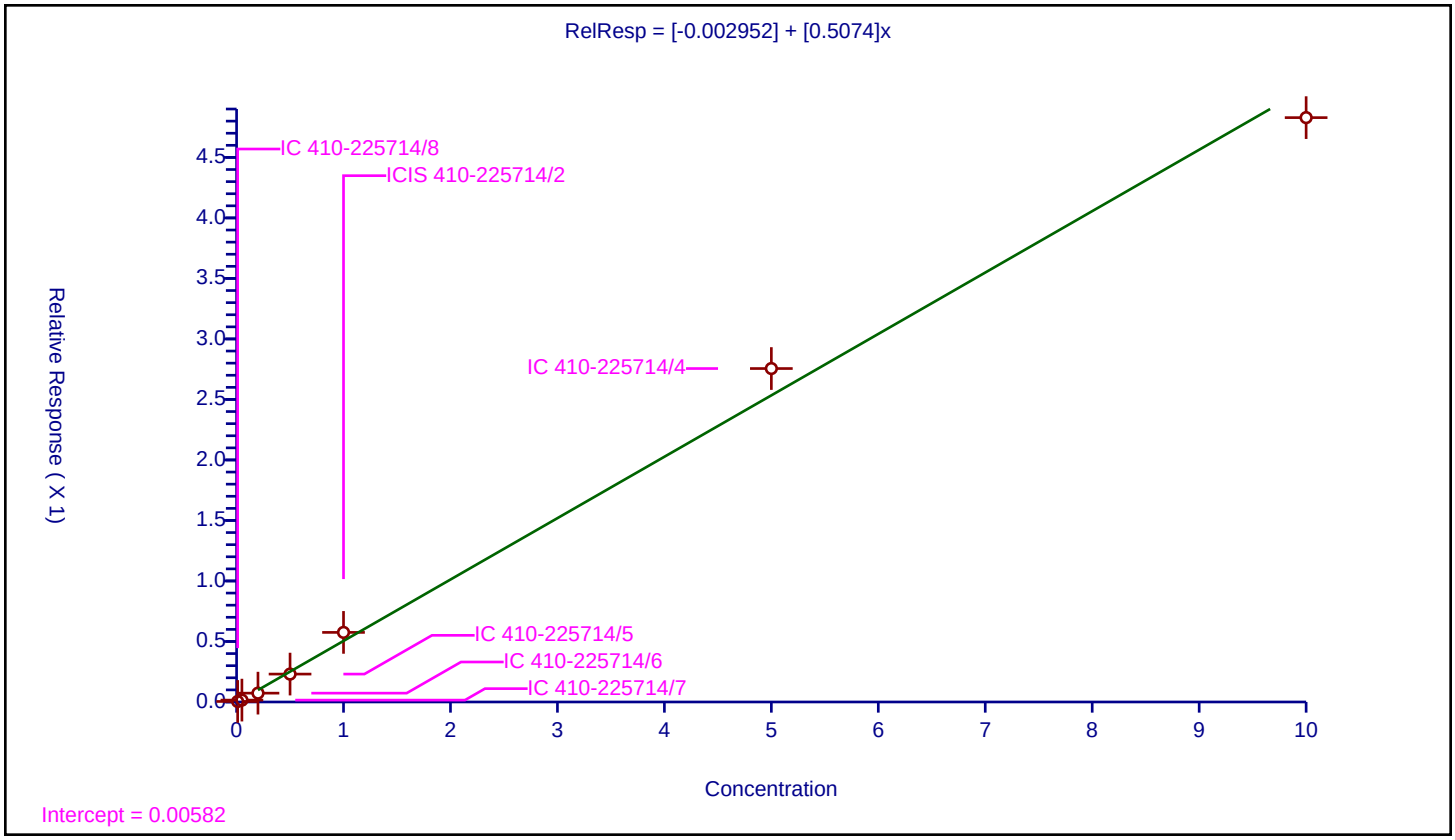
Curve Coefficients

Intercept:	-0.002952
Slope:	0.5074

Error Coefficients

Standard Error:	799000
Relative Standard Error:	26.6
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.004281	1.0	292241.0	0.428071	Y
2	IC 410-225714/7	0.05	0.015473	1.0	246810.0	0.309469	Y
3	IC 410-225714/6	0.2	0.073008	1.0	272804.0	0.365042	Y
4	IC 410-225714/5	0.5	0.230565	1.0	322772.0	0.46113	Y
5	ICIS 410-225714/2	1.0	0.575061	1.0	461262.0	0.575061	Y
6	IC 410-225714/4	5.0	2.755472	1.0	325280.0	0.551094	Y
7	IC 410-225714/3	10.0	4.828926	1.0	315116.0	0.482893	Y



Calibration / Benzo[a]anthracene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

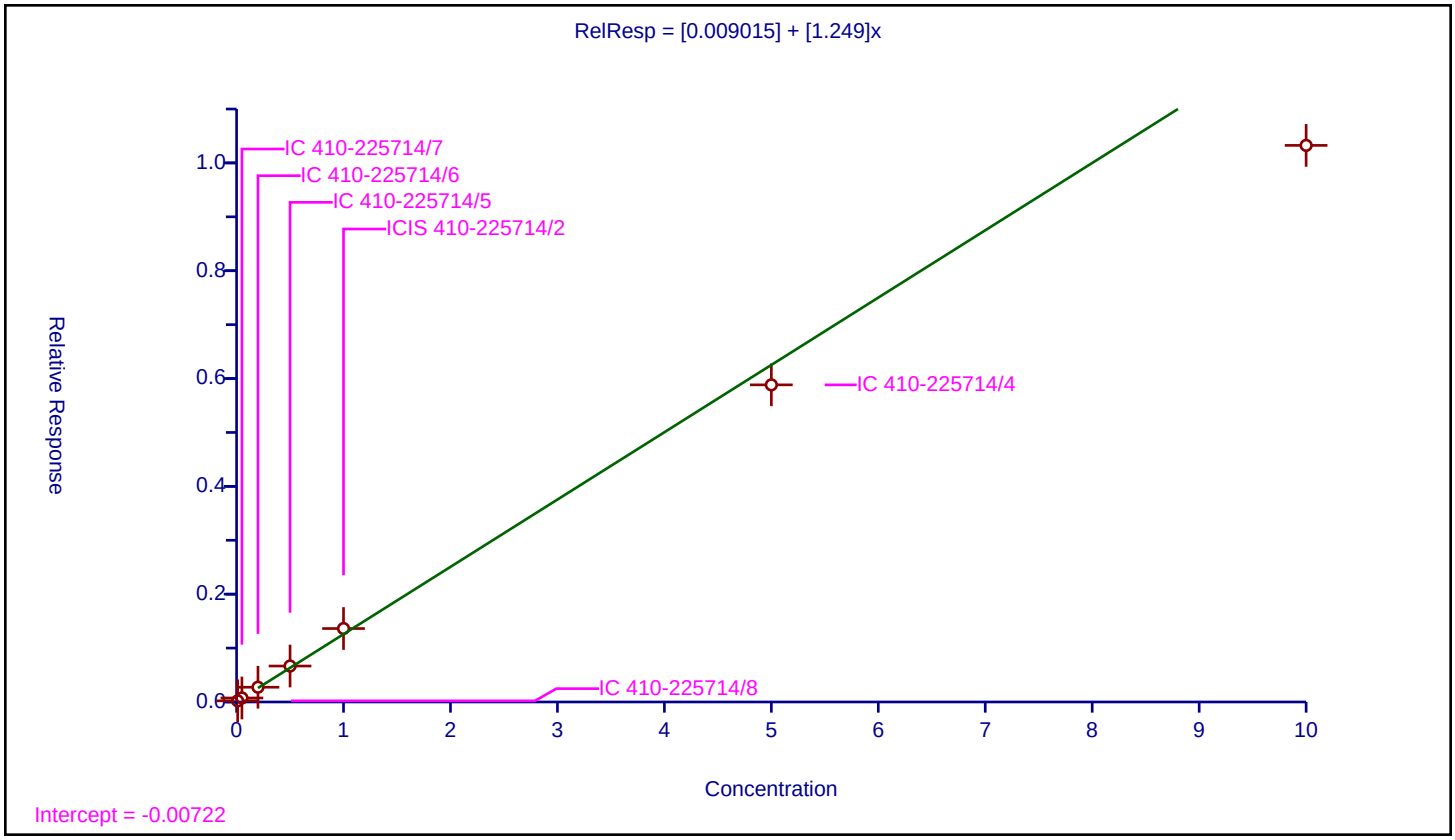
Curve Coefficients

Intercept:	0.009015
Slope:	1.249

Error Coefficients

Standard Error:	1710000
Relative Standard Error:	10.0
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.021321	1.0	292241.0	2.132144	Y
2	IC 410-225714/7	0.05	0.074527	1.0	246810.0	1.490539	Y
3	IC 410-225714/6	0.2	0.273918	1.0	272804.0	1.369591	Y
4	IC 410-225714/5	0.5	0.666979	1.0	322772.0	1.333957	Y
5	ICIS 410-225714/2	1.0	1.362495	1.0	461262.0	1.362495	Y
6	IC 410-225714/4	5.0	5.883187	1.0	325280.0	1.176637	Y
7	IC 410-225714/3	10.0	10.325315	1.0	315116.0	1.032532	Y



Calibration / Chrysene

Curve Type:	Quadratic
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

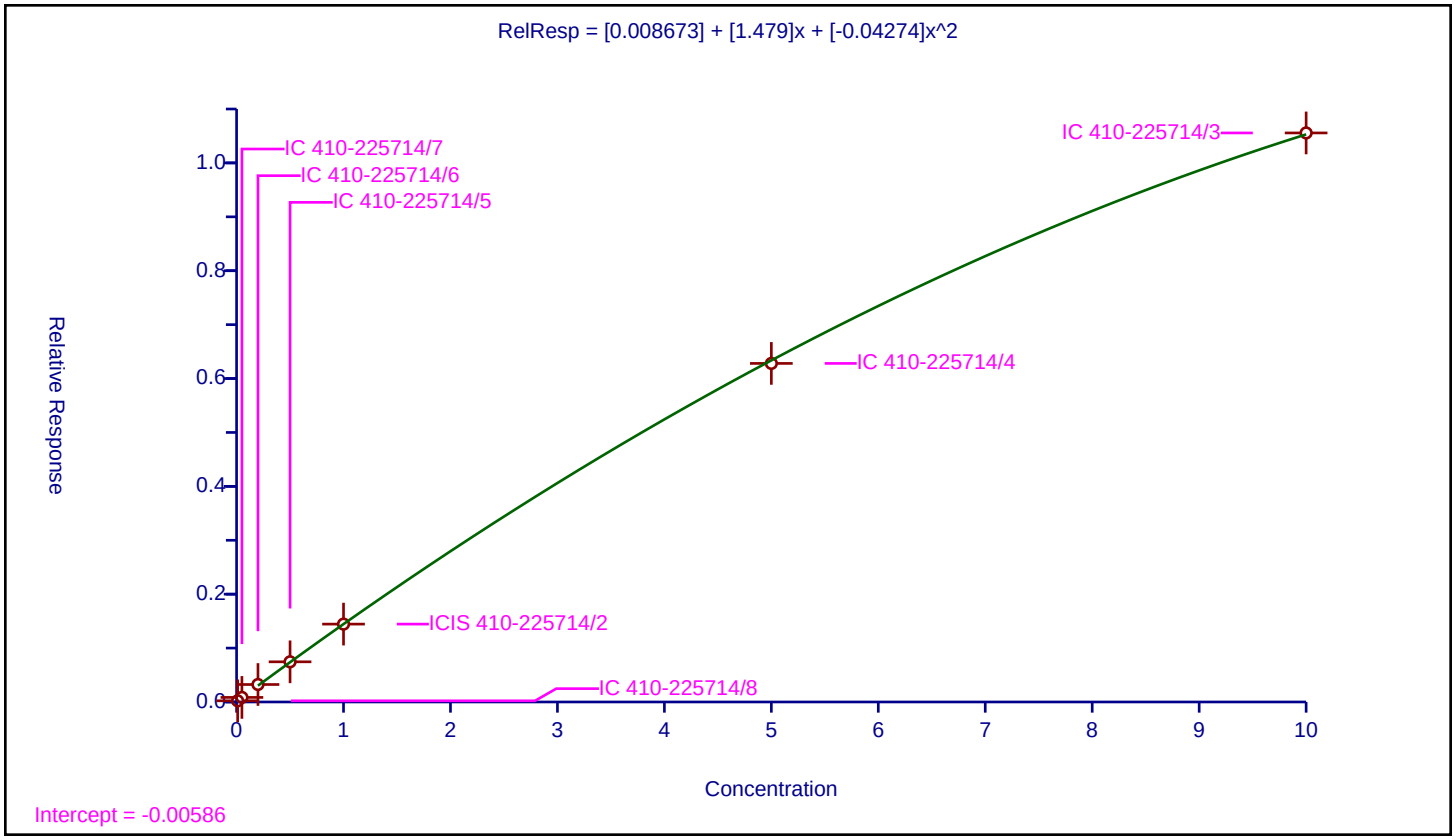
Curve Coefficients

Intercept:	0.008673
Slope:	1.479
Second Order:	-0.04274

Error Coefficients

Standard Error:	1980000
Relative Standard Error:	6.7
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.021879	1.0	292241.0	2.18792	Y
2	IC 410-225714/7	0.05	0.084782	1.0	246810.0	1.695636	Y
3	IC 410-225714/6	0.2	0.324398	1.0	272804.0	1.621989	Y
4	IC 410-225714/5	0.5	0.745015	1.0	322772.0	1.49003	Y
5	ICIS 410-225714/2	1.0	1.444843	1.0	461262.0	1.444843	Y
6	IC 410-225714/4	5.0	6.280497	1.0	325280.0	1.256099	Y
7	IC 410-225714/3	10.0	10.55643	1.0	315116.0	1.055643	Y



Calibration / Di-n-octyl phthalate

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

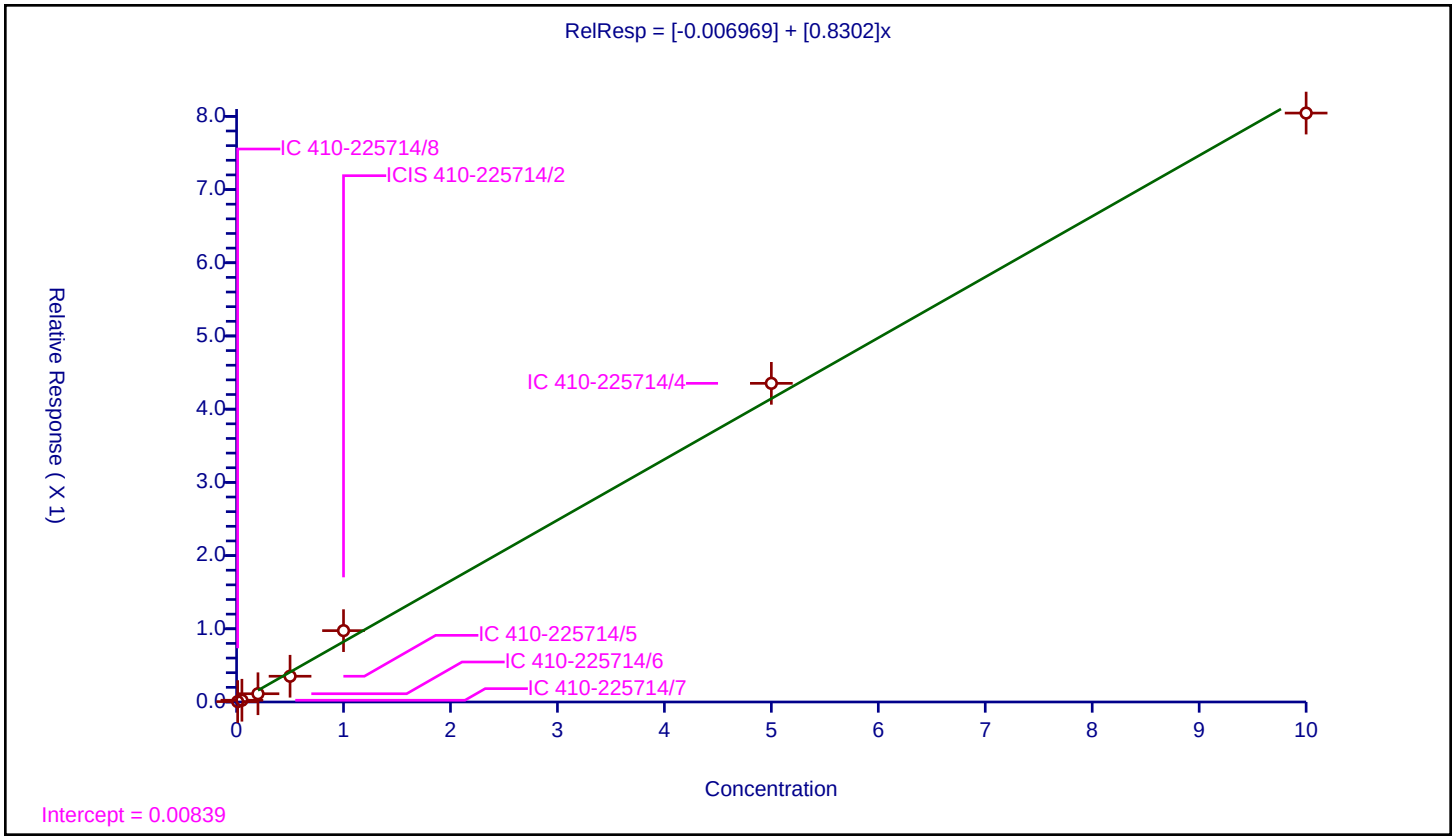
Curve Coefficients

Intercept:	-0.006969
Slope:	0.8302

Error Coefficients

Standard Error:	1330000
Relative Standard Error:	29.0
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.005241	1.0	279705.0	0.524124	Y
2	IC 410-225714/7	0.05	0.023801	1.0	236213.0	0.476011	Y
3	IC 410-225714/6	0.2	0.112839	1.0	261292.0	0.564196	Y
4	IC 410-225714/5	0.5	0.351751	1.0	310359.0	0.703501	Y
5	ICIS 410-225714/2	1.0	0.974493	1.0	433966.0	0.974493	Y
6	IC 410-225714/4	5.0	4.35276	1.0	339477.0	0.870552	Y
7	IC 410-225714/3	10.0	8.044603	1.0	316817.0	0.80446	Y



Calibration / Benzo[b]fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

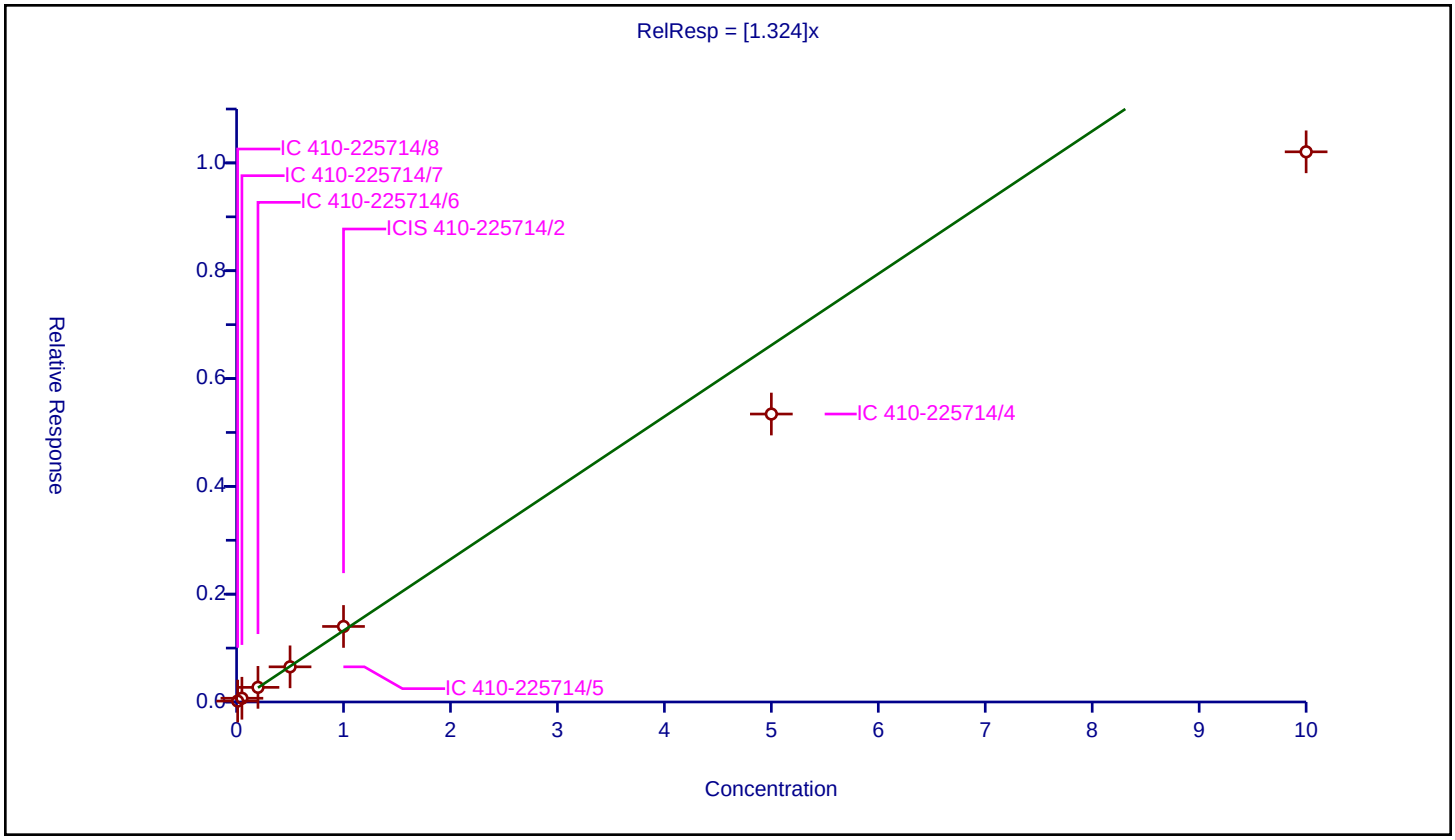
Curve Coefficients

Intercept:	0
Slope:	1.324

Error Coefficients

Standard Error:	1540000
Relative Standard Error:	17.6
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.961

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.017215	1.0	279705.0	1.721457	Y
2	IC 410-225714/7	0.05	0.069636	1.0	236213.0	1.392726	Y
3	IC 410-225714/6	0.2	0.271378	1.0	261292.0	1.356892	Y
4	IC 410-225714/5	0.5	0.652357	1.0	310359.0	1.304715	Y
5	ICIS 410-225714/2	1.0	1.401372	1.0	433966.0	1.401372	Y
6	IC 410-225714/4	5.0	5.341861	1.0	339477.0	1.068372	Y
7	IC 410-225714/3	10.0	10.206229	1.0	316817.0	1.020623	Y



Calibration / Benzo[k]fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

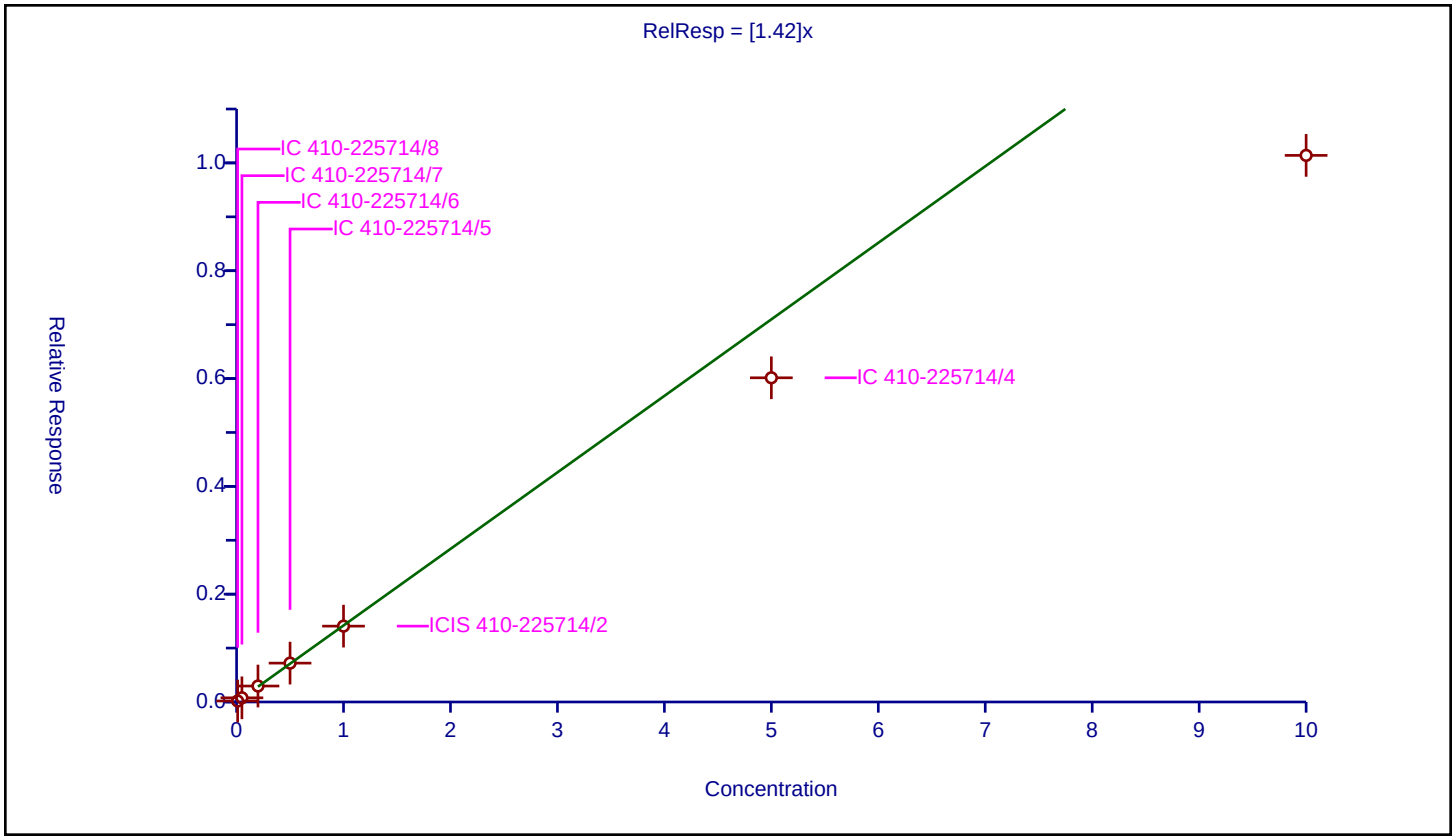
Curve Coefficients

Intercept:	0
Slope:	1.42

Error Coefficients

Standard Error:	1580000
Relative Standard Error:	18.5
Correlation Coefficient:	0.981
Coefficient of Determination (Adjusted):	0.957

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.018459	1.0	279705.0	1.845873	Y
2	IC 410-225714/7	0.05	0.077206	1.0	236213.0	1.544115	Y
3	IC 410-225714/6	0.2	0.296228	1.0	261292.0	1.48114	Y
4	IC 410-225714/5	0.5	0.721097	1.0	310359.0	1.442194	Y
5	ICIS 410-225714/2	1.0	1.40705	1.0	433966.0	1.40705	Y
6	IC 410-225714/4	5.0	6.013986	1.0	339477.0	1.202797	Y
7	IC 410-225714/3	10.0	10.139544	1.0	316817.0	1.013954	Y



Calibration / Benzo[e]pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

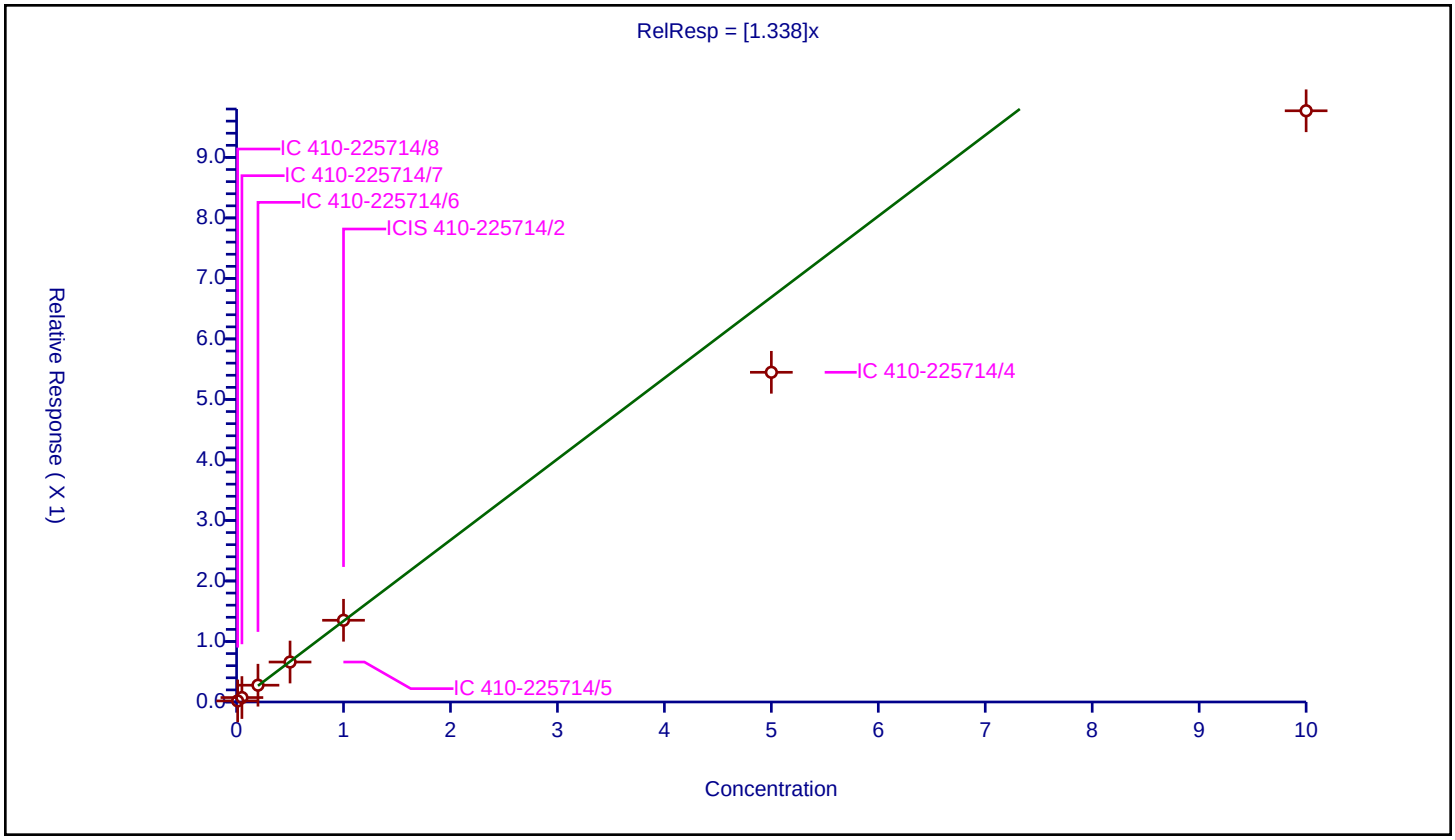
Curve Coefficients

Intercept:	0
Slope:	1.338

Error Coefficients

Standard Error:	1490000
Relative Standard Error:	19.3
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.952

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.017733	1.0	279705.0	1.773297	Y
2	IC 410-225714/7	0.05	0.073434	1.0	236213.0	1.468674	Y
3	IC 410-225714/6	0.2	0.277441	1.0	261292.0	1.387203	Y
4	IC 410-225714/5	0.5	0.660293	1.0	310359.0	1.320587	Y
5	ICIS 410-225714/2	1.0	1.350633	1.0	433966.0	1.350633	Y
6	IC 410-225714/4	5.0	5.448619	1.0	339477.0	1.089724	Y
7	IC 410-225714/3	10.0	9.770871	1.0	316817.0	0.977087	Y



Calibration / Benzo(a)pyrene-d12 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

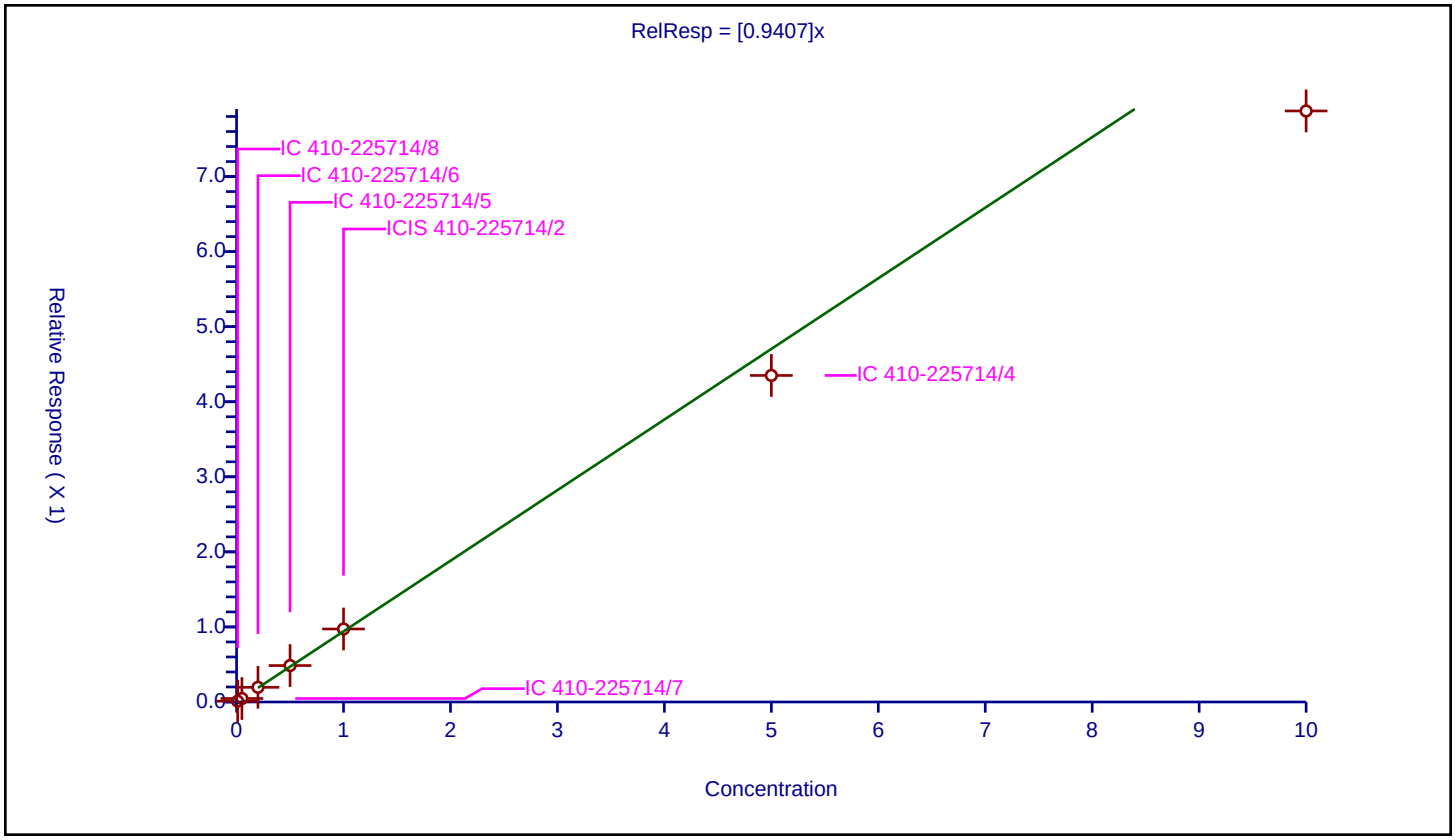
Curve Coefficients

Intercept:	0
Slope:	0.9407

Error Coefficients

Standard Error:	1200000
Relative Standard Error:	9.9
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.010804	1.0	279705.0	1.080424	Y
2	IC 410-225714/7	0.05	0.046284	1.0	236213.0	0.92569	Y
3	IC 410-225714/6	0.2	0.19554	1.0	261292.0	0.977699	Y
4	IC 410-225714/5	0.5	0.485502	1.0	310359.0	0.971005	Y
5	ICIS 410-225714/2	1.0	0.97268	1.0	433966.0	0.97268	Y
6	IC 410-225714/4	5.0	4.350457	1.0	339477.0	0.870091	Y
7	IC 410-225714/3	10.0	7.874035	1.0	316817.0	0.787403	Y



Calibration / Benzo[a]pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

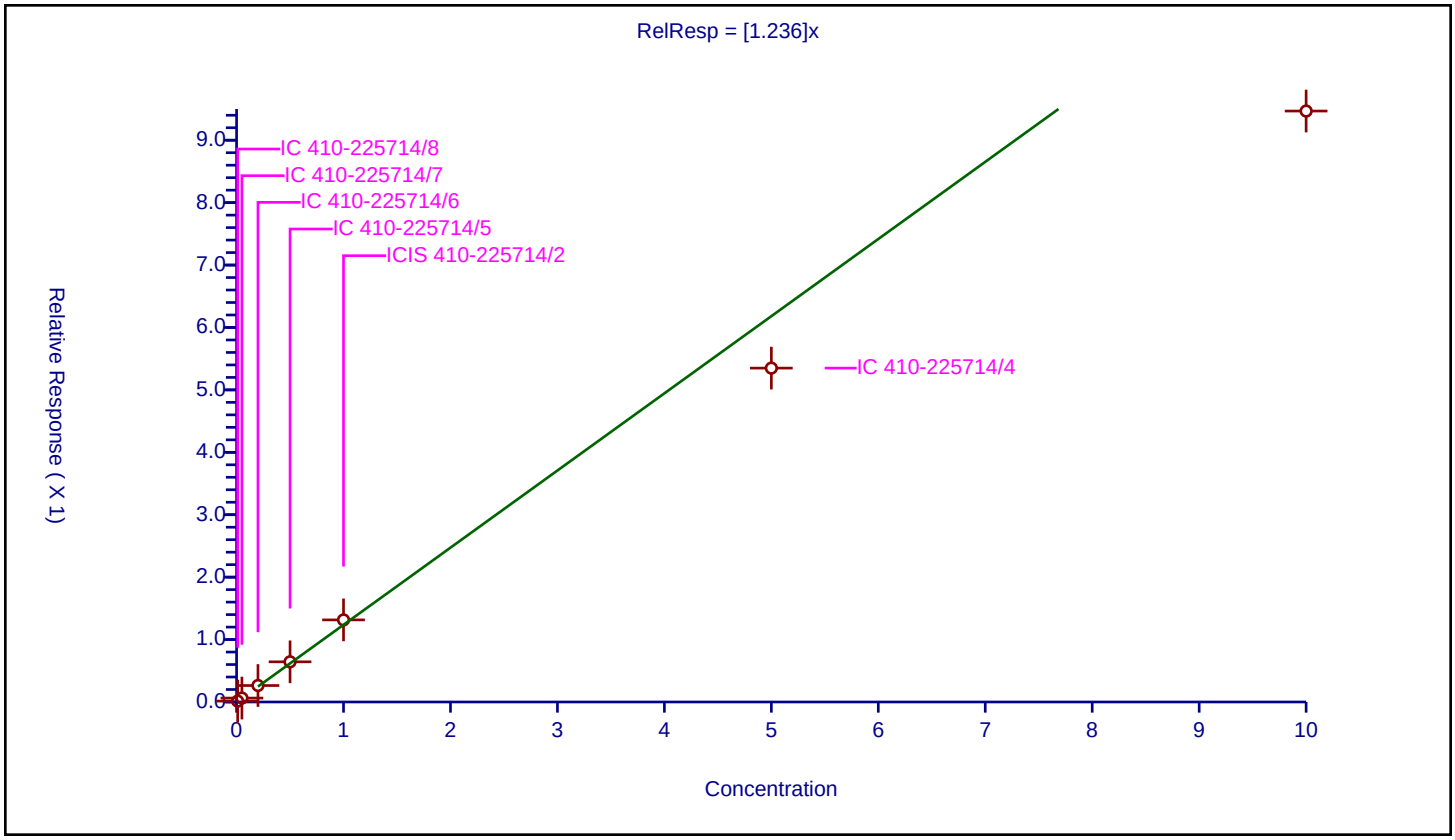
Curve Coefficients

Intercept:	0
Slope:	1.236

Error Coefficients

Standard Error:	1450000
Relative Standard Error:	13.8
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.014512	1.0	279705.0	1.451172	Y
2	IC 410-225714/7	0.05	0.063189	1.0	236213.0	1.263775	Y
3	IC 410-225714/6	0.2	0.263835	1.0	261292.0	1.319175	Y
4	IC 410-225714/5	0.5	0.643748	1.0	310359.0	1.287496	Y
5	ICIS 410-225714/2	1.0	1.315057	1.0	433966.0	1.315057	Y
6	IC 410-225714/4	5.0	5.349146	1.0	339477.0	1.069829	Y
7	IC 410-225714/3	10.0	9.467346	1.0	316817.0	0.946735	Y



Calibration / Perylene

Curve Type:	Quadratic
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

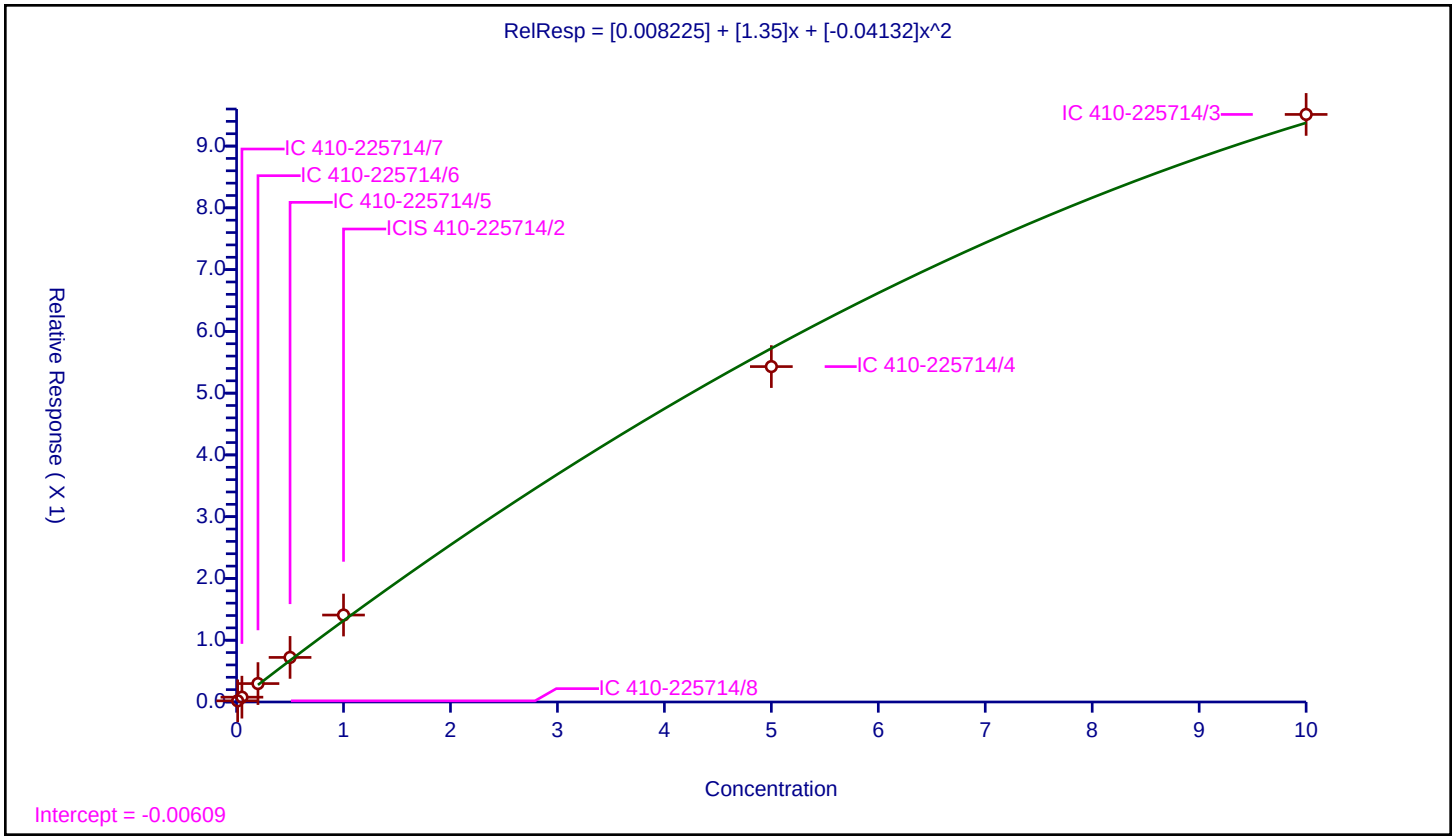
Curve Coefficients

Intercept:	0.008225
Slope:	1.35
Second Order:	-0.04132

Error Coefficients

Standard Error:	1800000
Relative Standard Error:	13.2
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.018806	1.0	279705.0	1.880553	Y
2	IC 410-225714/7	0.05	0.077769	1.0	236213.0	1.555376	Y
3	IC 410-225714/6	0.2	0.297897	1.0	261292.0	1.489483	Y
4	IC 410-225714/5	0.5	0.721432	1.0	310359.0	1.442865	Y
5	ICIS 410-225714/2	1.0	1.407525	1.0	433966.0	1.407525	Y
6	IC 410-225714/4	5.0	5.430009	1.0	339477.0	1.086002	Y
7	IC 410-225714/3	10.0	9.512211	1.0	316817.0	0.951221	Y



Calibration / Indeno[1,2,3-cd]pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

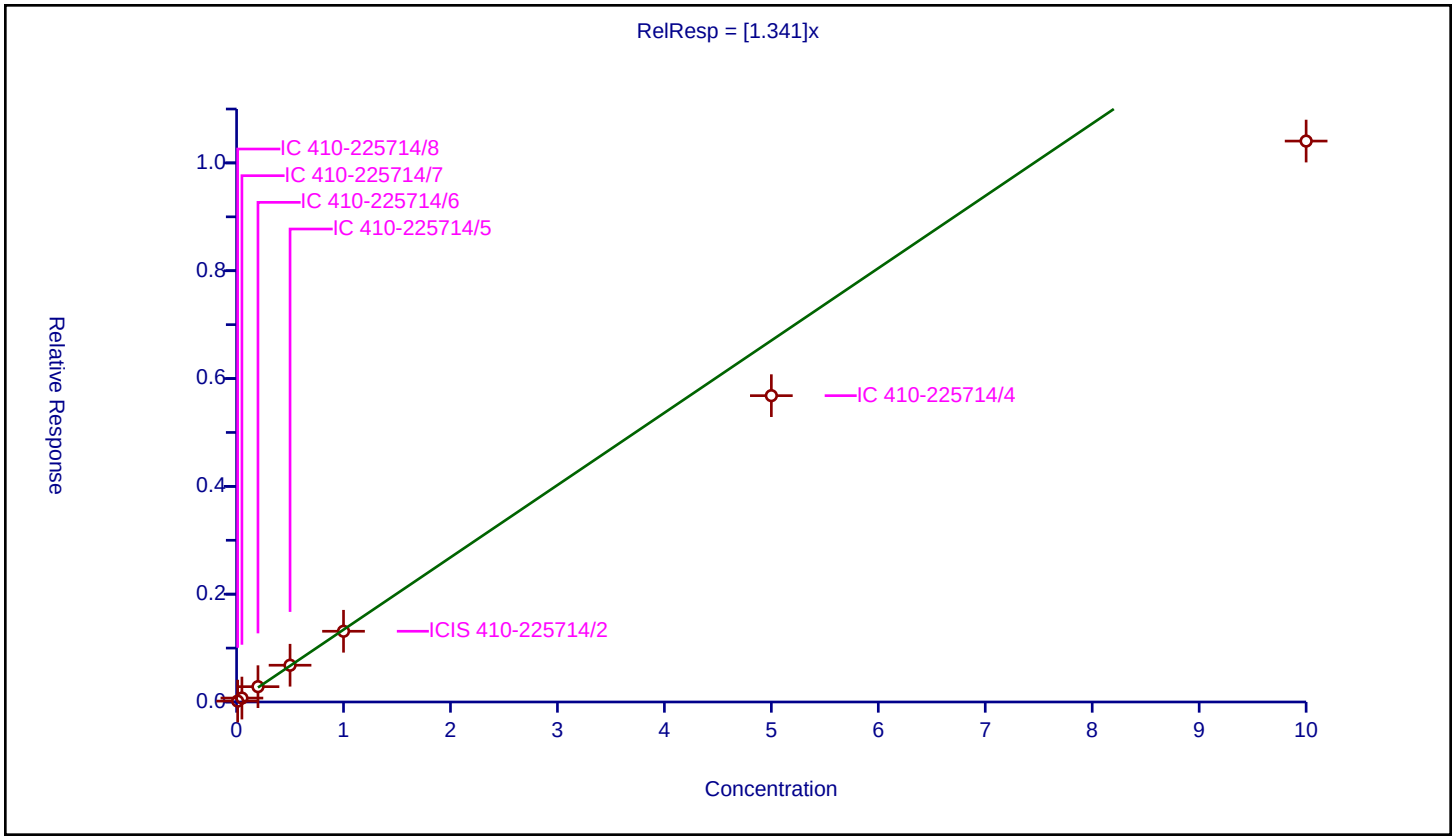
Curve Coefficients

Intercept:	0
Slope:	1.341

Error Coefficients

Standard Error:	1580000
Relative Standard Error:	15.3
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.971

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.016575	1.0	279705.0	1.657461	Y
2	IC 410-225714/7	0.05	0.072811	1.0	236213.0	1.456228	Y
3	IC 410-225714/6	0.2	0.284283	1.0	261292.0	1.421417	Y
4	IC 410-225714/5	0.5	0.681701	1.0	310359.0	1.363402	Y
5	ICIS 410-225714/2	1.0	1.312356	1.0	433966.0	1.312356	Y
6	IC 410-225714/4	5.0	5.682518	1.0	339477.0	1.136504	Y
7	IC 410-225714/3	10.0	10.405436	1.0	316817.0	1.040544	Y



Calibration / Dibenz(a,h)anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

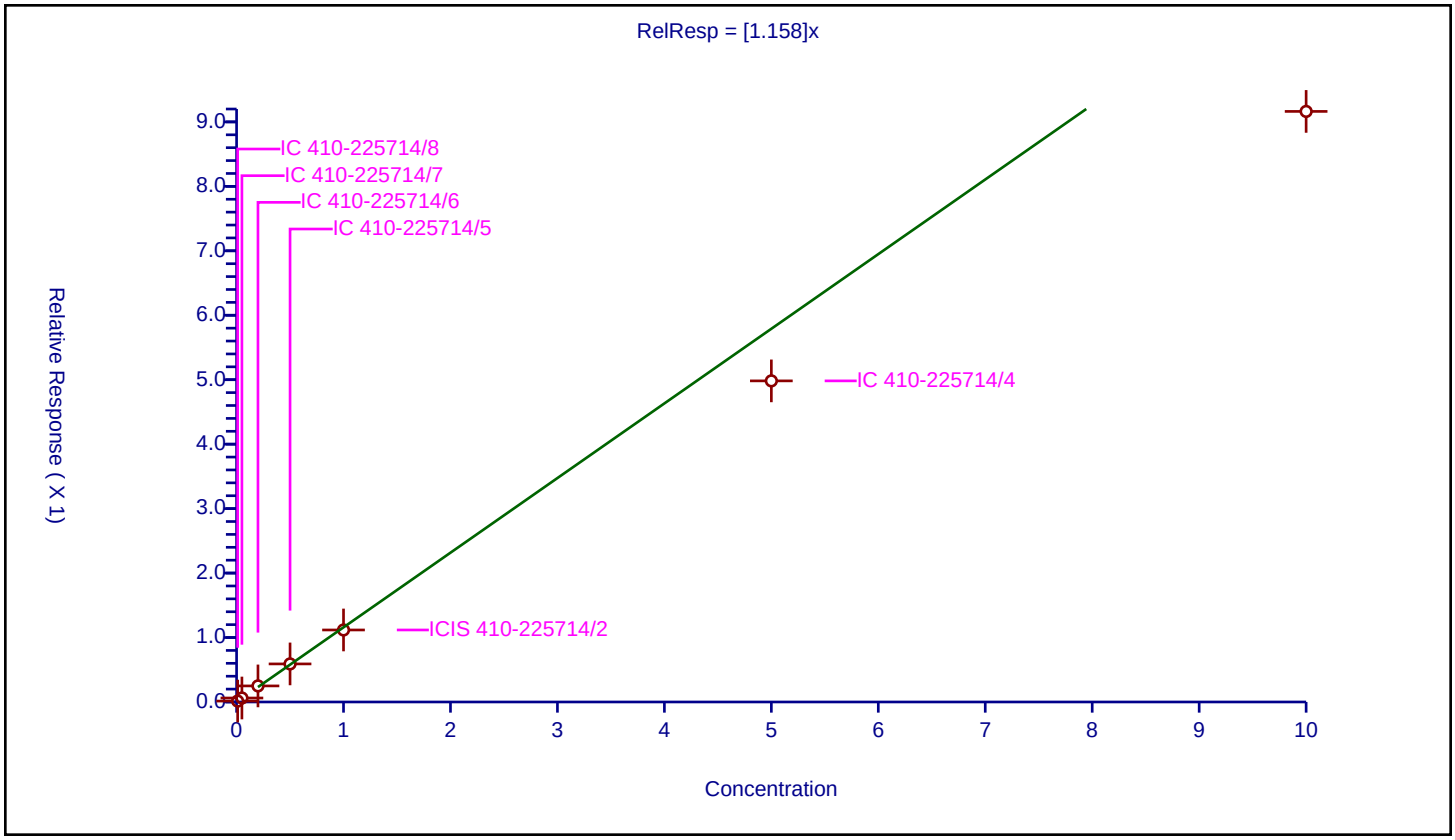
Curve Coefficients

Intercept:	0
Slope:	1.158

Error Coefficients

Standard Error:	1390000
Relative Standard Error:	14.4
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.975

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.014143	1.0	279705.0	1.414347	Y
2	IC 410-225714/7	0.05	0.061673	1.0	236213.0	1.233463	Y
3	IC 410-225714/6	0.2	0.249403	1.0	261292.0	1.247015	Y
4	IC 410-225714/5	0.5	0.590777	1.0	310359.0	1.181554	Y
5	ICIS 410-225714/2	1.0	1.117332	1.0	433966.0	1.117332	Y
6	IC 410-225714/4	5.0	4.982037	1.0	339477.0	0.996407	Y
7	IC 410-225714/3	10.0	9.162706	1.0	316817.0	0.916271	Y



Calibration / Benzo[g,h,i]perylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

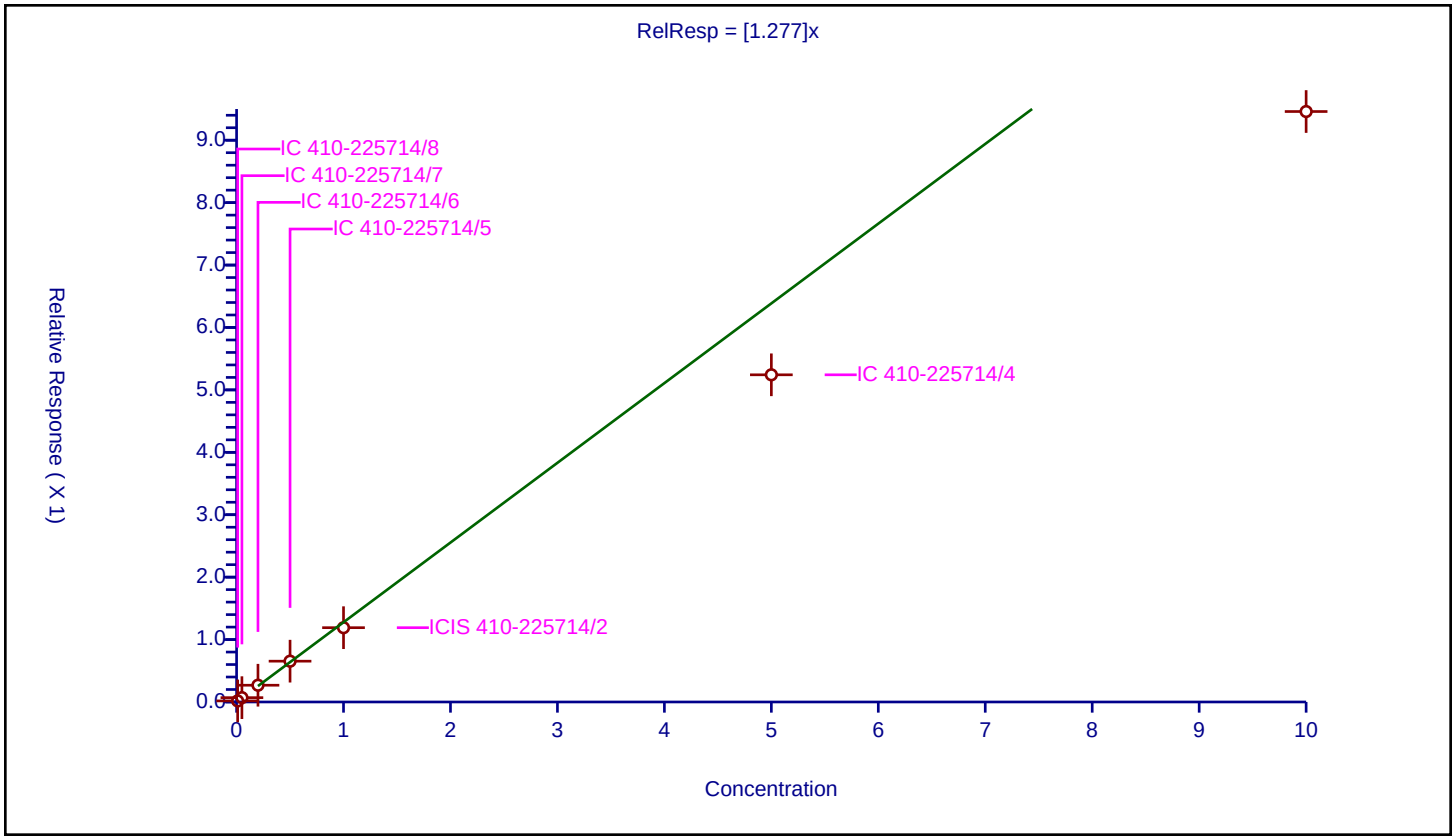
Curve Coefficients

Intercept:	0
Slope:	1.277

Error Coefficients

Standard Error:	1440000
Relative Standard Error:	19.7
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.950

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-225714/8	0.01	0.017139	1.0	279705.0	1.713949	Y
2	IC 410-225714/7	0.05	0.069547	1.0	236213.0	1.390948	Y
3	IC 410-225714/6	0.2	0.268638	1.0	261292.0	1.343191	Y
4	IC 410-225714/5	0.5	0.653769	1.0	310359.0	1.307537	Y
5	ICIS 410-225714/2	1.0	1.190248	1.0	433966.0	1.190248	Y
6	IC 410-225714/4	5.0	5.242028	1.0	339477.0	1.048406	Y
7	IC 410-225714/3	10.0	9.45996	1.0	316817.0	0.945996	Y



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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 227325

SDG No.:

Instrument ID: HP23263 GC Column: DB-5MS 30m ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/24/2022 17:14 Calibration End Date: 02/24/2022 19:10 Calibration ID: 35778

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-227325/7	NB0406.D
Level 2	IC 410-227325/6	NB0405.D
Level 3	IC 410-227325/5	NB0404.D
Level 4	ICIS 410-227325/2	NB0401b.D
Level 5	IC 410-227325/4	NB0403.D
Level 6	IC 410-227325/3	NB0402.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	+++++ 0.4676	0.5163	0.4573	0.5132	0.4510	Ave		0.4811				6.5		20.4			
N-Nitrosodimethylamine	0.4613 0.4090	0.4123	0.4061	0.4091	0.3974	Ave		0.4159				5.5		20.4			
Bis(2-chloroethyl)ether	0.1425 0.2350	0.2246	0.2009	0.2205	0.1938	Ave		0.2029				16.4		20.4			
Naphthalene	1.1277 0.8548	0.9626	0.9638	0.9438	0.7930	Ave		0.9409				12.1		20.4			
Quinoline	0.4008 0.5178	0.4056	0.4211	0.5421	0.4720	Ave		0.4599				13.1		20.4			
2-Methylnaphthalene	0.5930 0.6017	0.6008	0.6199	0.6318	0.5414	Ave		0.5981				5.2		20.4			
1-Methylnaphthalene	0.9745 0.5469	0.6441	0.6292	0.5831	0.4932	Lin2	0.0043	0.5495							0.9960		0.9900
Dimethylphthalate	1.4952 1.1871	1.3599	1.3650	1.3327	1.2866	Ave		1.3378				7.6		20.4			
Acenaphthylene	2.3085 1.8726	1.8658	1.8386	1.9479	1.7798	Ave		1.9355				9.9		20.4			
Acenaphthene	1.3213 1.1070	1.1254	1.0905	1.1820	1.1004	Ave		1.1544				7.6		20.4			
Dibenzofuran	1.6566 1.6788	1.6995	1.6327	1.8632	1.6994	Ave		1.7050				4.8		20.4			
Diethylphthalate	1.4177 1.1808	1.3235	1.3097	1.3102	1.2415	Ave		1.2972				6.2		20.4			
Fluorene	1.4769 1.3331	1.2753	1.2931	1.4289	1.2750	Ave		1.3470				6.4		20.4			
N-Nitrosodiphenylamine	0.7300 0.3912	0.3824	0.4068	0.4665	0.4090	Lin1	0.0028	0.4016							0.9960		0.9900

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 227325

SDG No.:

Instrument ID: HP23263 GC Column: DB-5MS 30m ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/24/2022 17:14 Calibration End Date: 02/24/2022 19:10 Calibration ID: 35778

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Hexachlorobenzene	0.5156 0.3359	0.3864	0.3787	0.3993	0.3416	Ave		0.3929				16.6		20.4			
Phenanthrene	1.2775 0.9855	1.0565	1.0416	1.1437	1.0093	Ave		1.0857				10.0		20.4			
Anthracene	1.3258 0.9919	1.0213	1.0291	1.1467	0.9991	Ave		1.0857				12.0		20.4			
Di-n-butyl phthalate	1.3100 0.9527	1.1572	1.1204	1.0805	0.9925	Ave		1.1022				11.6		20.4			
Fluoranthene	1.6666 1.0963	1.2924	1.2475	1.2810	1.1056	Ave		1.2816				16.2		20.4			
Pyrene	1.9375 1.3271	1.3787	1.4259	1.4536	1.3657	Ave		1.4814				15.4		20.4			
Butylbenzylphthalate	0.5688 0.5150	0.4977	0.5370	0.5343	0.5296	Ave		0.5304				4.5		20.4			
Benzo[a]anthracene	1.4401 1.2284	1.0646	1.1148	1.2827	1.1840	Ave		1.2191				10.9		20.4			
Chrysene	2.0481 1.2362	1.4147	1.3424	1.3661	1.2322	Lin2	0.0078	1.2663							0.9990		0.9900
Bis(2-ethylhexyl) phthalate	0.7596 0.6811	0.6668	0.7015	0.6881	0.6823	Ave		0.6966				4.7		20.4			
Di-n-octyl phthalate	1.0521 0.9384	0.9872	1.0044	1.0170	0.9684	Ave		0.9946				4.0		20.4			
Benzo[b]fluoranthene	1.4989 1.1348	1.1577	1.1644	1.2969	1.1695	Ave		1.2370				11.4		20.4			
Benzo[k]fluoranthene	1.7719 1.1047	1.2926	1.2873	1.2970	1.1555	Ave		1.3181				18.0		20.4			
Benzo[e]pyrene	1.4307 1.0720	1.1631	1.1831	1.2581	1.1173	Ave		1.2040				10.6		20.4			
Benzo[a]pyrene	1.3676 1.0042	1.1307	1.1310	1.2208	1.0683	Ave		1.1537				11.0		20.4			
Perylene	1.4488 1.0318	1.1138	1.1307	1.2037	1.0684	Ave		1.1662				12.9		20.4			
Indeno[1,2,3-cd]pyrene	1.3121 1.0421	1.0864	1.1198	1.2200	1.0505	Ave		1.1385				9.4		20.4			
Dibenz(a,h)anthracene	1.5446 1.1815	1.2827	1.2510	1.3354	1.1834	Ave		1.2964				10.4		20.4			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 227325

SDG No.:

Instrument ID: HP23263 GC Column: DB-5MS 30m ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/24/2022 17:14 Calibration End Date: 02/24/2022 19:10 Calibration ID: 35778

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzo[g,h,i]perylene	1.8491 1.2511	1.3697	1.4140	1.4266	1.2646	Ave		1.4292				15.3		20.4			
1-Methylnaphthalene-d10 (Surr)	0.6099 0.4467	0.5213	0.5068	0.4760	0.4057	Ave		0.4944				14.2		20.4			
Fluoranthene-d10 (Surr)	+++++ 0.9153	1.1218	1.0204	1.0704	0.9214	Ave		1.0099				9.0		20.4			
Benzo(a)pyrene-d12 (Surr)	1.2980 0.8193	0.9437	0.9027	0.9289	0.8459	Ave		0.9564				18.2		20.4			

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 227325

SDG No.:

Instrument ID: HP23263 GC Column: DB-5MS 30m ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/24/2022 17:14 Calibration End Date: 02/24/2022 19:10 Calibration ID: 35778

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-227325/7	NB0406.D
Level 2	IC 410-227325/6	NB0405.D
Level 3	IC 410-227325/5	NB0404.D
Level 4	ICIS 410-227325/2	NB0401b.D
Level 5	IC 410-227325/4	NB0403.D
Level 6	IC 410-227325/3	NB0402.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,4-Dioxane	DCBd 4	Ave	+++++ 94559	2095	3746	24016	37606	+++++ 2.50	0.0500	0.100	0.500	1.00
N-Nitrosodimethylamine	DCBd 4	Ave	343 82704	1673	3327	19143	33133	0.0100 2.50	0.0500	0.100	0.500	1.00
Bis(2-chloroethyl)ether	NPT	Ave	362 171410	3250	5878	37688	67042	0.0100 2.50	0.0500	0.100	0.500	1.00
Naphthalene	NPT	Ave	2864 623612	13929	28204	161328	274304	0.0100 2.50	0.0500	0.100	0.500	1.00
Quinoline	NPT	Ave	1018 377736	5869	12322	92657	163274	0.0100 2.50	0.0500	0.100	0.500	1.00
2-Methylnaphthalene	NPT	Ave	1506 438950	8694	18141	108004	187296	0.0100 2.50	0.0500	0.100	0.500	1.00
1-Methylnaphthalene	NPT	Lin2	2475 398965	9321	18411	99677	170600	0.0100 2.50	0.0500	0.100	0.500	1.00
Dimethylphthalate	ANT	Ave	55733 1683678	107151	215296	550813	998721	0.250 10.0	0.500	1.00	2.50	5.00
Acenaphthylene	ANT	Ave	3442 663999	14701	28999	161016	276303	0.0100 2.50	0.0500	0.100	0.500	1.00
Acenaphthene	ANT	Ave	1970 392514	8867	17200	97706	170825	0.0100 2.50	0.0500	0.100	0.500	1.00
Dibenzofuran	ANT	Ave	2470 595263	13391	25751	154014	263815	0.0100 2.50	0.0500	0.100	0.500	1.00
Diethylphthalate	ANT	Ave	52845 1674715	104278	206571	541538	963683	0.250 10.0	0.500	1.00	2.50	5.00
Fluorene	ANT	Ave	2202	10048	20395	118112	197942	0.0100	0.0500	0.100	0.500	1.00

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 227325

SDG No.:

Instrument ID: HP23263 GC Column: DB-5MS 30m ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/24/2022 17:14 Calibration End Date: 02/24/2022 19:10 Calibration ID: 35778

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			472708					2.50				
N-Nitrosodiphenylamine	PHN	Lin1	1801 265973	5299	11261	69611	117546	0.0100 2.50	0.0500	0.100	0.500	1.00
Hexachlorobenzene	PHN	Ave	1272 228376	5355	10484	59583	98201	0.0100 2.50	0.0500	0.100	0.500	1.00
Phenanthrene	PHN	Ave	3152 670012	14642	28837	170646	290107	0.0100 2.50	0.0500	0.100	0.500	1.00
Anthracene	PHN	Ave	3271 674359	14154	28490	171095	287183	0.0100 2.50	0.0500	0.100	0.500	1.00
Di-n-butyl phthalate	PHN	Ave	80802 2590693	160371	310194	806071	1426445	0.250 10.0	0.500	1.00	2.50	5.00
Fluoranthene	PHN	Ave	4112 745330	17911	34536	191127	317786	0.0100 2.50	0.0500	0.100	0.500	1.00
Pyrene	CRY	Ave	4484 781782	18507	35932	201675	345288	0.0100 2.50	0.0500	0.100	0.500	1.00
Butylbenzylphthalate	CRY	Ave	32913 1213605	66804	135329	370688	669485	0.250 10.0	0.500	1.00	2.50	5.00
Benzo[a]anthracene	CRY	Ave	3333 723637	14290	28092	177965	299336	0.0100 2.50	0.0500	0.100	0.500	1.00
Chrysene	CRY	Lin2	4740 728209	18990	33828	189545	311529	0.0100 2.50	0.0500	0.100	0.500	1.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	43952 1605007	89502	176767	477389	862558	0.250 10.0	0.500	1.00	2.50	5.00
Di-n-octyl phthalate	PRY	Ave	72543 2848784	149629	298619	838013	1474985	0.250 10.0	0.500	1.00	2.50	5.00
Benzo[b]fluoranthene	PRY	Ave	4134 861251	17547	34618	213732	356277	0.0100 2.50	0.0500	0.100	0.500	1.00
Benzo[k]fluoranthene	PRY	Ave	4887 838364	19591	38271	213758	351993	0.0100 2.50	0.0500	0.100	0.500	1.00
Benzo[e]pyrene	PRY	Ave	3946 813571	17628	35174	207344	340372	0.0100 2.50	0.0500	0.100	0.500	1.00
Benzo[a]pyrene	PRY	Ave	3772 762122	17137	33624	201190	325436	0.0100 2.50	0.0500	0.100	0.500	1.00
Perylene	PRY	Ave	3996 783046	16882	33616	198373	325457	0.0100 2.50	0.0500	0.100	0.500	1.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	3619	16466	33292	201058	320019	0.0100	0.0500	0.100	0.500	1.00

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 227325

SDG No.:

Instrument ID: HP23263 GC Column: DB-5MS 30m ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/24/2022 17:14 Calibration End Date: 02/24/2022 19:10 Calibration ID: 35778

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			790904					2.50				
Dibenz(a,h)anthracene	PRY	Ave	4260 896667	19442	37194	220088	360507	0.0100 2.50	0.0500	0.100	0.500	1.00
Benzo[g,h,i]perylene	PRY	Ave	5100 949533	20760	42038	235110	385231	0.0100 2.50	0.0500	0.100	0.500	1.00
1-Methylnaphthalene-d10 (Surr)	NPT	Ave	1549 325864	7543	14830	81357	140357	0.0100 2.50	0.0500	0.100	0.500	1.00
Fluoranthene-d10 (Surr)	PHN	Ave	+++++ 622281	15547	28250	159712	264826	+++++ 2.50	0.0500	0.100	0.500	1.00
Benzo(a)pyrene-d12 (Surr)	PRY	Ave	3580 621765	14303	26838	153097	257697	0.0100 2.50	0.0500	0.100	0.500	1.00

Curve Type Legend
Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73279-1 Analy Batch No.: 227325

SDG No.:

Instrument ID: HP23263 GC Column: DB-5MS 30m ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/24/2022 17:14 Calibration End Date: 02/24/2022 19:10 Calibration ID: 35778

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-227325/7	NB0406.D
Level 2	IC 410-227325/6	NB0405.D
Level 3	IC 410-227325/5	NB0404.D
Level 4	ICIS 410-227325/2	NB0401b.D
Level 5	IC 410-227325/4	NB0403.D
Level 6	IC 410-227325/3	NB0402.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
1-Methylnaphthalene	-1.0	1.6	6.7	4.6	-11.0	-0.8	50	30	30	30	30	30
N-Nitrosodiphenylamine	11.5	-18.8	-5.7	14.8	1.1	-2.9	50	30	30	30	30	30
Chrysene	0.0	-0.6	-0.2	6.7	-3.3	-2.6	50	30	30	30	30	30

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0401b.D
Lims ID: ICIS L4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 24-Feb-2022 17:14:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS L4
Misc. Info.: 410-0051112-002
Operator ID: kel10217 Instrument ID: HP23263
Sublist: chrom-8270_SIM_HP23263*sub3

Method: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\8270_SIM_HP23263.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 24-Feb-2022 20:11:45 Calib Date: 24-Feb-2022 19:10:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D

Column 1 : DB-5MS 20m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1641

First Level Reviewer: luttek Date: 24-Feb-2022 17:44:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	1.749	1.749	0.000	95	24016	0.5000	0.5334	
2 N-Nitrosodimethylamine	74	2.051	2.051	0.000	73	19143	0.5000	0.4918	
3 Bis(2-chloroethyl)ether	93	4.267	4.267	0.000	82	37688	0.5000	0.5434	
* 4 1,4-Dichlorobenzene-d4	152	4.517	4.517	0.000	87	23399	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	85468	0.2500	0.2500	
6 Naphthalene	128	5.730	5.730	0.000	99	161328	0.5000	0.5015	
7 Quinoline	129	6.055	6.055	0.000	99	92657	0.5000	0.5893	
8 2-Methylnaphthalene	142	6.387	6.387	0.000	99	108004	0.5000	0.5282	
$ 9 1-Methylnaphthalene-d10	152	6.447	6.447	0.000	98	81357	0.5000	0.4814	
10 1-Methylnaphthalene	142	6.477	6.477	0.000	96	99677	0.5000	0.5228	Ma
11 Dimethyl phthalate	163	7.118	7.118	0.000	100	550813	2.50	2.49	
12 Acenaphthylene	152	7.239	7.239	0.000	97	161016	0.5000	0.5032	
* 13 Acenaphthene-d10	164	7.379	7.379	0.000	97	41331	0.2500	0.2500	
14 Acenaphthene	154	7.409	7.409	0.000	89	97706	0.5000	0.5119	
15 Dibenzofuran	168	7.569	7.569	0.000	74	154014	0.5000	0.5464	
16 Diethyl phthalate	149	7.787	7.787	0.000	100	541538	2.50	2.53	
17 Fluorene	166	7.895	7.895	0.000	99	118112	0.5000	0.5304	M
18 N-Nitrosodiphenylamine	169	8.011	8.011	0.000	98	69611	0.5000	0.5739	
19 Hexachlorobenzene	284	8.412	8.412	0.000	87	59583	0.5000	0.5082	
* 20 Phenanthrene-d10	188	8.783	8.783	0.000	100	74603	0.2500	0.2500	
21 Phenanthrene	178	8.806	8.806	0.000	100	170646	0.5000	0.5267	
22 Anthracene	178	8.860	8.860	0.000	100	171095	0.5000	0.5281	
23 Di-n-butyl phthalate	149	9.352	9.352	0.000	100	806071	2.50	2.45	
$ 24 Fluoranthene-d10 (Surr)	212	9.922	9.922	0.000	95	159712	0.5000	0.5300	
25 Fluoranthene	202	9.941	9.941	0.000	95	191127	0.5000	0.4998	
26 Pyrene	202	10.154	10.154	0.000	94	201675	0.5000	0.4906	
27 Butyl benzyl phthalate	149	10.827	10.827	0.000	100	370688	2.50	2.52	
28 Benzo[a]anthracene	228	11.440	11.440	0.000	99	177965	0.5000	0.5261	
* 29 Chrysene-d12	240	11.456	11.456	0.000	98	69373	0.2500	0.2500	
30 Chrysene	228	11.486	11.486	0.000	100	189545	0.5000	0.5333	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Bis(2-ethylhexyl) phthalate	149	11.509	11.509	0.000	100	477389	2.50	2.47	
32 Di-n-octyl phthalate	149	12.391	12.391	0.000	100	838013	2.50	2.56	
33 Benzo[b]fluoranthene	252	12.867	12.867	0.000	100	213732	0.5000	0.5242	
34 Benzo[k]fluoranthene	252	12.905	12.905	0.000	100	213758	0.5000	0.4920	
35 Benzo[e]pyrene	252	13.258	13.258	0.000	100	207344	0.5000	0.5224	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.296	13.296	0.000	96	153097	0.5000	0.4856	
37 Benzo[a]pyrene	252	13.335	13.335	0.000	100	201190	0.5000	0.5290	
* 38 Perylene-d12	264	13.419	13.419	0.000	93	82404	0.2500	0.2500	
39 Perylene	252	13.457	13.457	0.000	100	198373	0.5000	0.5161	
40 Indeno[1,2,3-cd]pyrene	276	15.055	15.055	0.000	93	201058	0.5000	0.5358	
41 Dibenz(a,h)anthracene	278	15.111	15.111	0.000	93	220088	0.5000	0.5150	
42 Benzo[g,h,i]perylene	276	15.521	15.521	0.000	93	235110	0.5000	0.4991	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

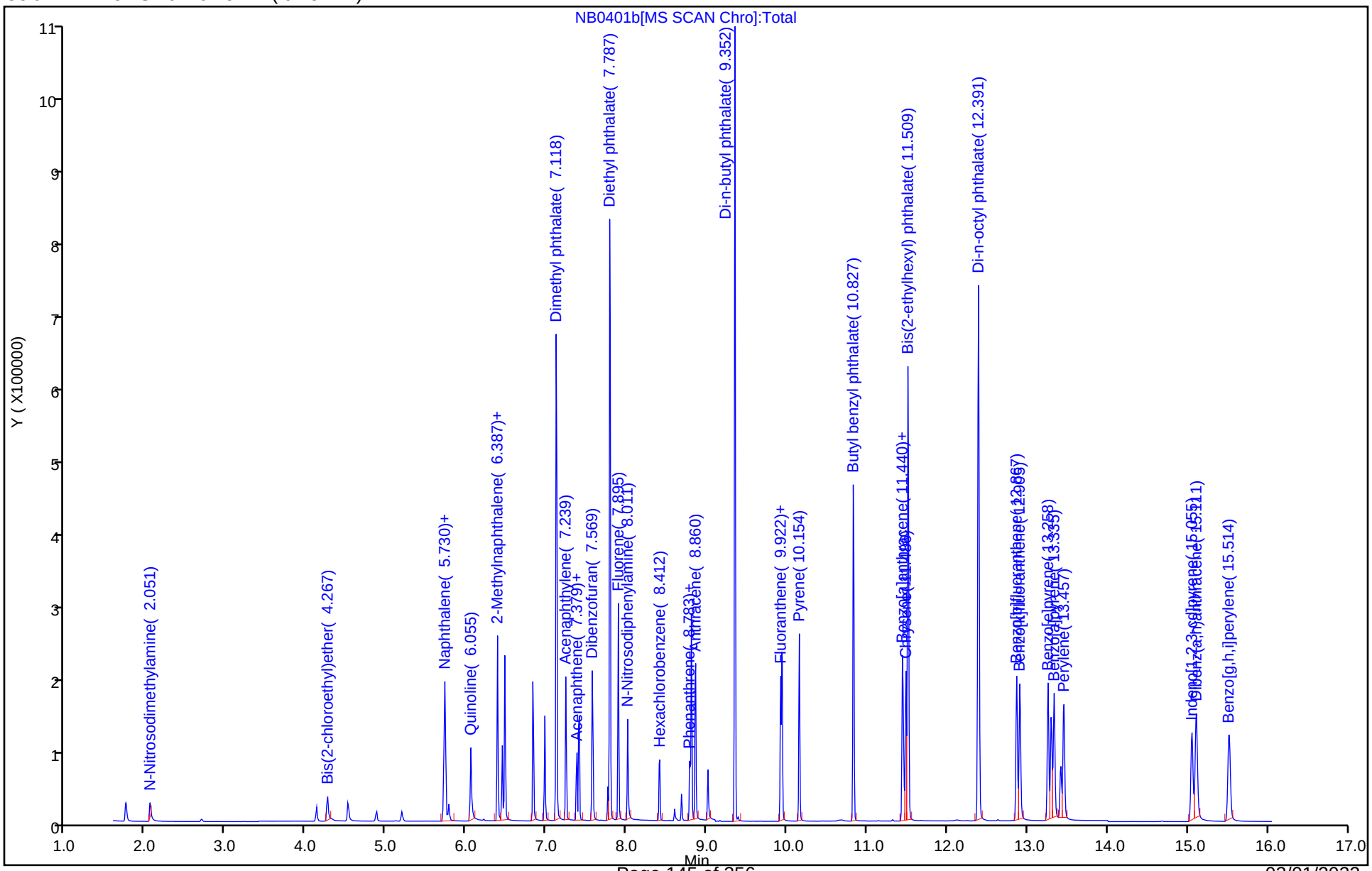
MSS_RVSIM_4_00019 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2022 20:11:46 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0401b.D				
Injection Date:	24-Feb-2022 17:14:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	ICIS L4			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Resolution Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0401b.D				
Injection Date:	24-Feb-2022 17:14:30	Instrument ID:	HP23263		
Lims ID:	ICIS L4				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

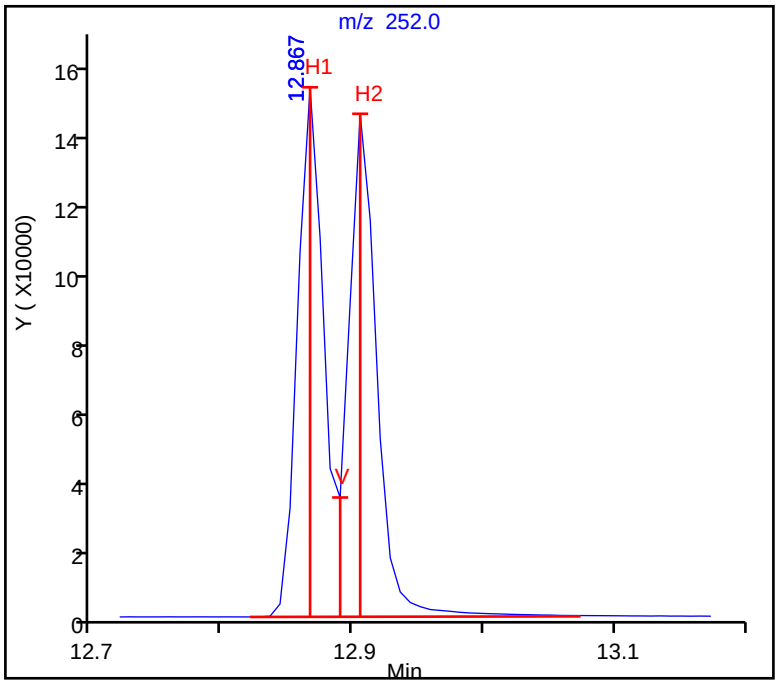
33 Benzo[b]fluoranthene - 34 Benzo[k]fluoranthene

SW-846 Method

Version D: %R = (V / ((H1 + H2)/2)) * 100

V (Valley Height) = 34561
H1(33 BenzoBFluor) = 153416
H2(34 BenzoKFluor) = 145711

Version D: %R = 23.1 <= 50.0
Passed



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

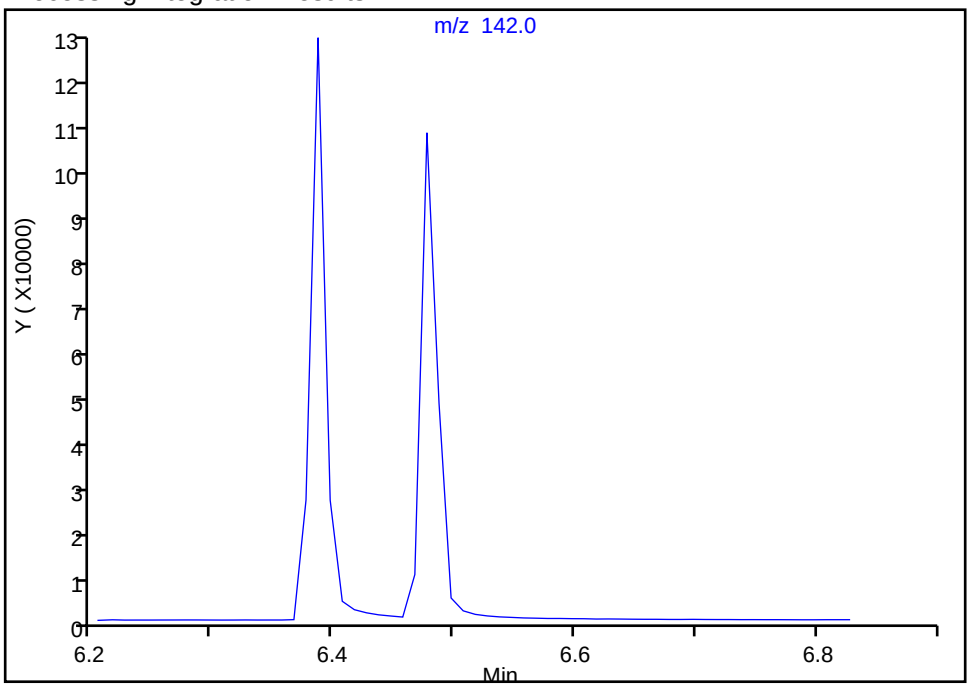
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0401b.D				
Injection Date:	24-Feb-2022 17:14:30	Instrument ID:	HP23263		
Lims ID:	ICIS L4				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

10 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

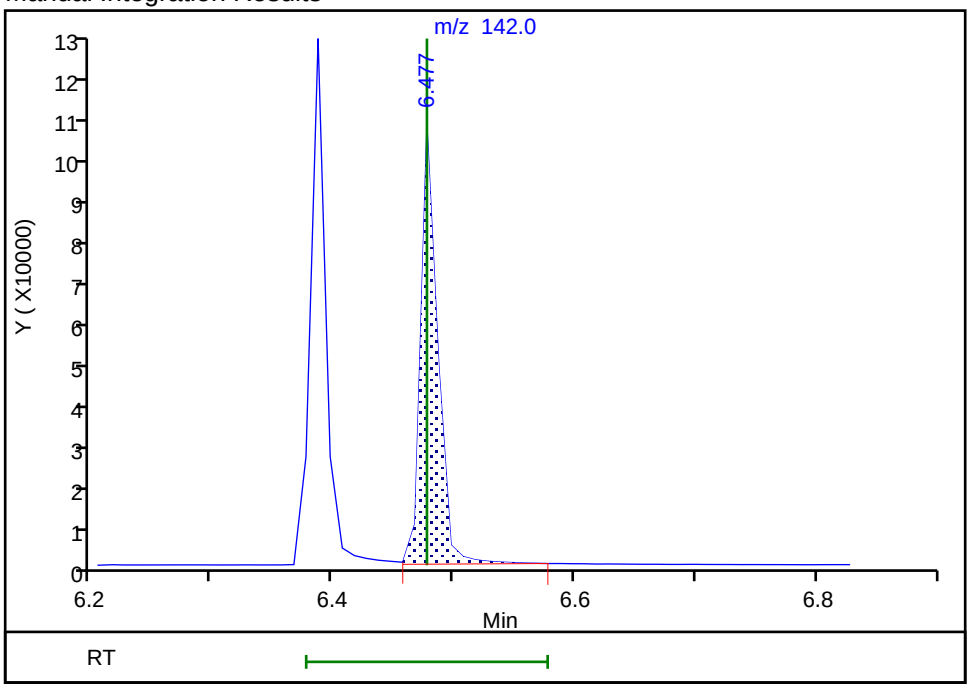
Not Detected
Expected RT: 6.48

Processing Integration Results



RT: 6.48
Area: 99677
Amount: 0.522768
Amount Units: ug/ml

Manual Integration Results



Reviewer: luttek, 24-Feb-2022 18:40:55
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

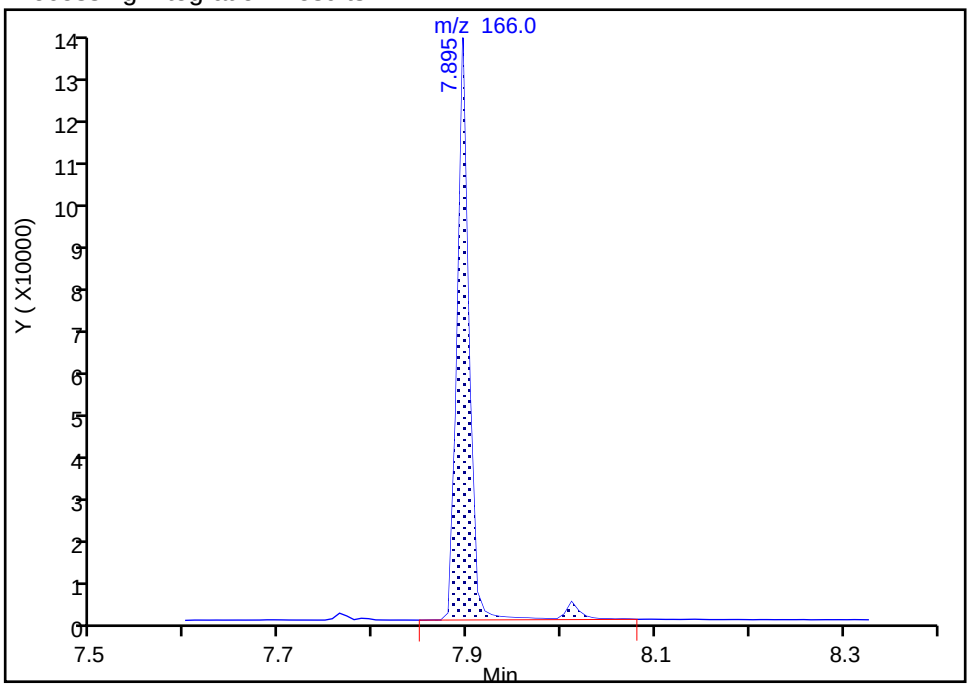
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0401b.D				
Injection Date:	24-Feb-2022 17:14:30	Instrument ID:	HP23263		
Lims ID:	ICIS L4				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

17 Fluorene, CAS: 86-73-7

Signal: 1

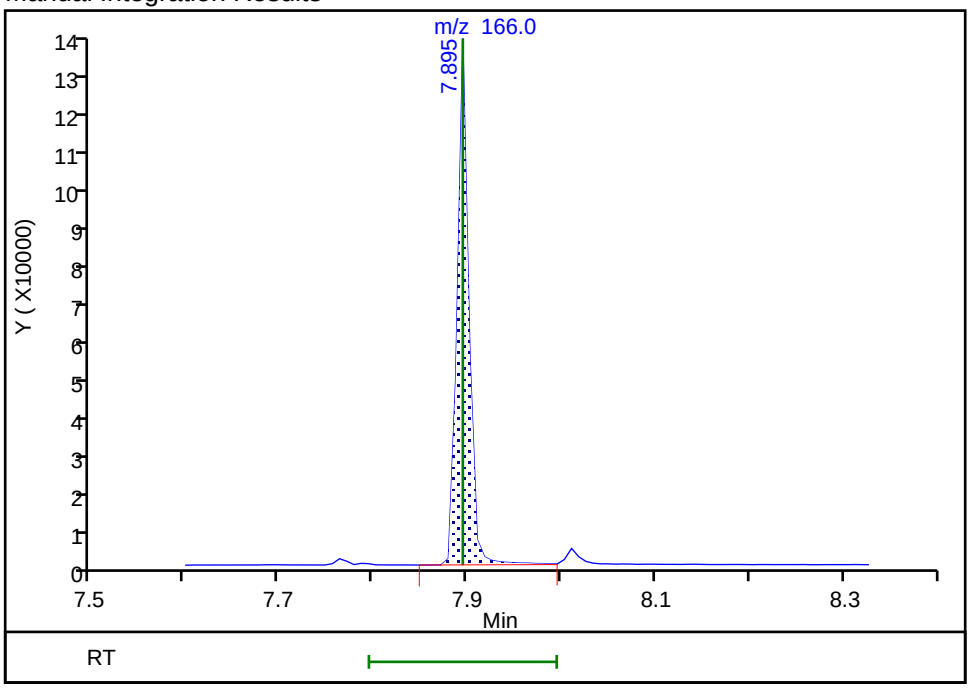
Processing Integration Results

RT: 7.89
Area: 122402
Amount: 0.531386
Amount Units: ug/ml



Manual Integration Results

RT: 7.89
Area: 118112
Amount: 0.530368
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 18:41:04

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0402.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Feb-2022 17:41:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L6
Misc. Info.: 410-0051112-003
Operator ID: kel10217 Instrument ID: HP23263
Sublist: chrom-8270_SIM_HP23263*sub3

Method: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\8270_SIM_HP23263.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 24-Feb-2022 20:11:48 Calib Date: 24-Feb-2022 19:10:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D

Column 1 : DB-5MS 20m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1641

First Level Reviewer: luttek Date: 24-Feb-2022 18:45:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	1.745	1.749	-0.004	95	94559	2.50	2.43	
2 N-Nitrosodimethylamine	74	2.043	2.051	-0.008	72	82704	2.50	2.46	
3 Bis(2-chloroethyl)ether	93	4.255	4.267	-0.012	95	171410	2.50	2.90	
* 4 1,4-Dichlorobenzene-d4	152	4.517	4.517	0.000	86	20223	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	72955	0.2500	0.2500	
6 Naphthalene	128	5.730	5.730	0.000	99	623612	2.50	2.27	
7 Quinoline	129	6.055	6.055	0.001	97	377736	2.50	2.81	
8 2-Methylnaphthalene	142	6.387	6.387	0.000	96	438950	2.50	2.51	
$ 9 1-Methylnaphthalene-d10	152	6.447	6.447	0.000	98	325864	2.50	2.26	
10 1-Methylnaphthalene	142	6.477	6.477	0.000	98	398965	2.50	2.48	Ma
11 Dimethyl phthalate	163	7.128	7.118	0.010	97	1683678	10.0	8.87	
12 Acenaphthylene	152	7.239	7.239	0.000	97	663999	2.50	2.42	
* 13 Acenaphthene-d10	164	7.379	7.379	0.000	96	35458	0.2500	0.2500	
14 Acenaphthene	154	7.409	7.409	0.000	88	392514	2.50	2.40	
15 Dibenzofuran	168	7.569	7.569	0.000	77	595263	2.50	2.46	
16 Diethyl phthalate	149	7.787	7.787	0.000	100	1674715	10.0	9.10	
17 Fluorene	166	7.895	7.895	0.000	98	472708	2.50	2.47	M
18 N-Nitrosodiphenylamine	169	8.011	8.011	0.000	97	265973	2.50	2.43	
19 Hexachlorobenzene	284	8.412	8.412	0.000	87	228376	2.50	2.14	
* 20 Phenanthrene-d10	188	8.783	8.783	0.000	100	67984	0.2500	0.2500	
21 Phenanthrene	178	8.806	8.806	0.000	100	670012	2.50	2.27	
22 Anthracene	178	8.860	8.860	0.000	100	674359	2.50	2.28	M
23 Di-n-butyl phthalate	149	9.352	9.352	0.000	100	2590693	10.0	8.64	
$ 24 Fluoranthene-d10 (Surr)	212	9.922	9.922	0.000	95	622281	2.50	2.27	
25 Fluoranthene	202	9.941	9.941	0.000	95	745330	2.50	2.14	
26 Pyrene	202	10.154	10.154	0.000	94	781782	2.50	2.24	
27 Butyl benzyl phthalate	149	10.834	10.827	0.007	99	1213605	10.0	9.71	
28 Benzo[a]anthracene	228	11.440	11.440	0.000	98	723637	2.50	2.52	
* 29 Chrysene-d12	240	11.456	11.456	0.000	54	58909	0.2500	0.2500	
30 Chrysene	228	11.486	11.486	0.000	100	728209	2.50	2.43	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Bis(2-ethylhexyl) phthalate	149	11.509	11.509	0.000	100	1605007	10.0	9.78	
32 Di-n-octyl phthalate	149	12.391	12.391	0.000	100	2848784	10.0	9.44	
33 Benzo[b]fluoranthene	252	12.867	12.867	0.000	99	861251	2.50	2.29	
34 Benzo[k]fluoranthene	252	12.905	12.905	0.000	100	838364	2.50	2.10	
35 Benzo[e]pyrene	252	13.258	13.258	0.000	100	813571	2.50	2.23	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.304	13.296	0.008	95	621765	2.50	2.14	
37 Benzo[a]pyrene	252	13.335	13.335	0.000	100	762122	2.50	2.18	
* 38 Perylene-d12	264	13.419	13.419	0.000	93	75894	0.2500	0.2500	
39 Perylene	252	13.457	13.457	0.000	100	783046	2.50	2.21	
40 Indeno[1,2,3-cd]pyrene	276	15.055	15.055	0.000	93	790904	2.50	2.29	
41 Dibenz(a,h)anthracene	278	15.112	15.111	0.001	93	896667	2.50	2.28	
42 Benzo[g,h,i]perylene	276	15.521	15.521	0.000	93	949533	2.50	2.19	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

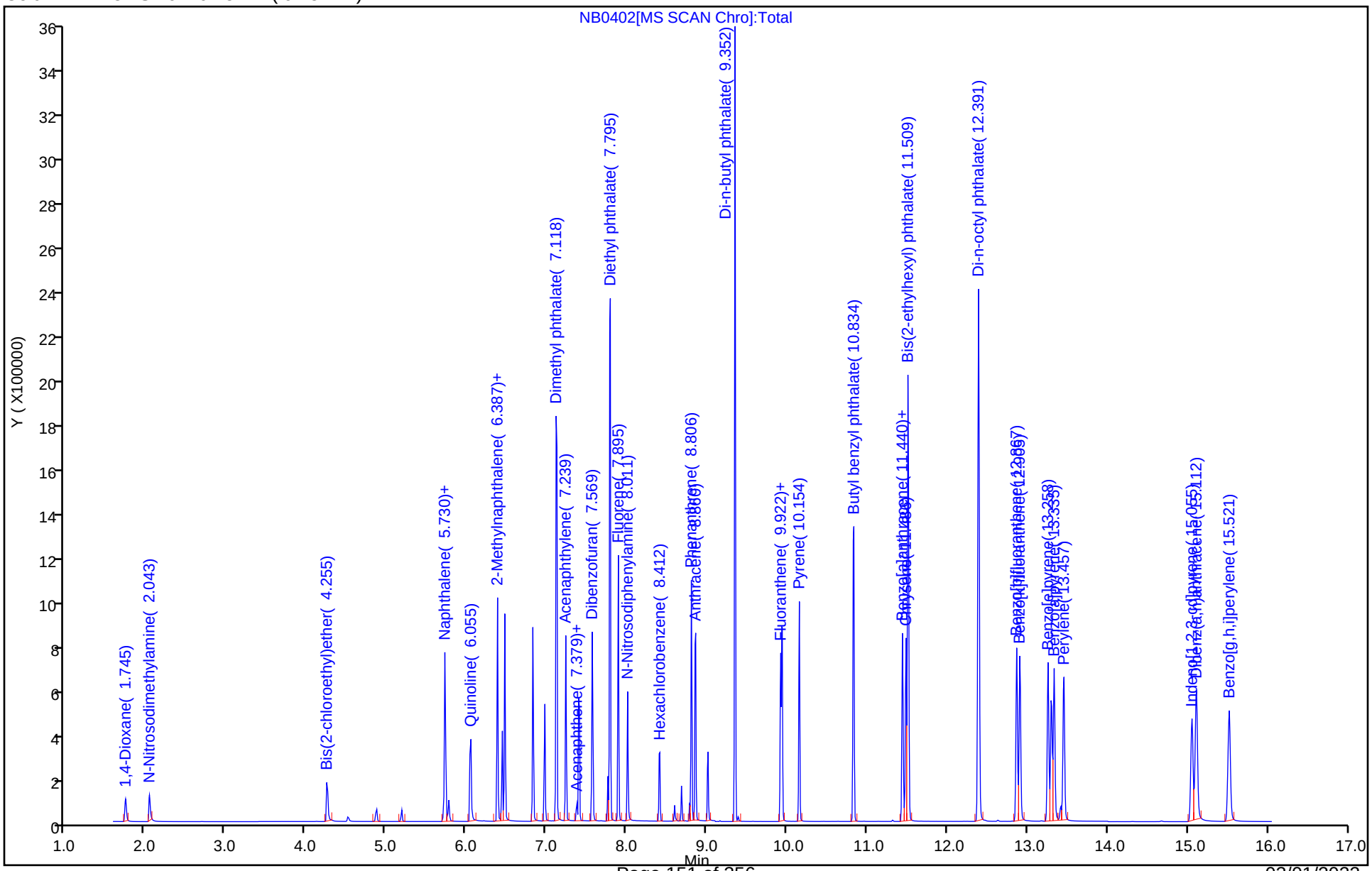
MSS_RVSIM_6_00012 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2022 20:11:48 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0402.D				
Injection Date:	24-Feb-2022 17:41:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	IC L6			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

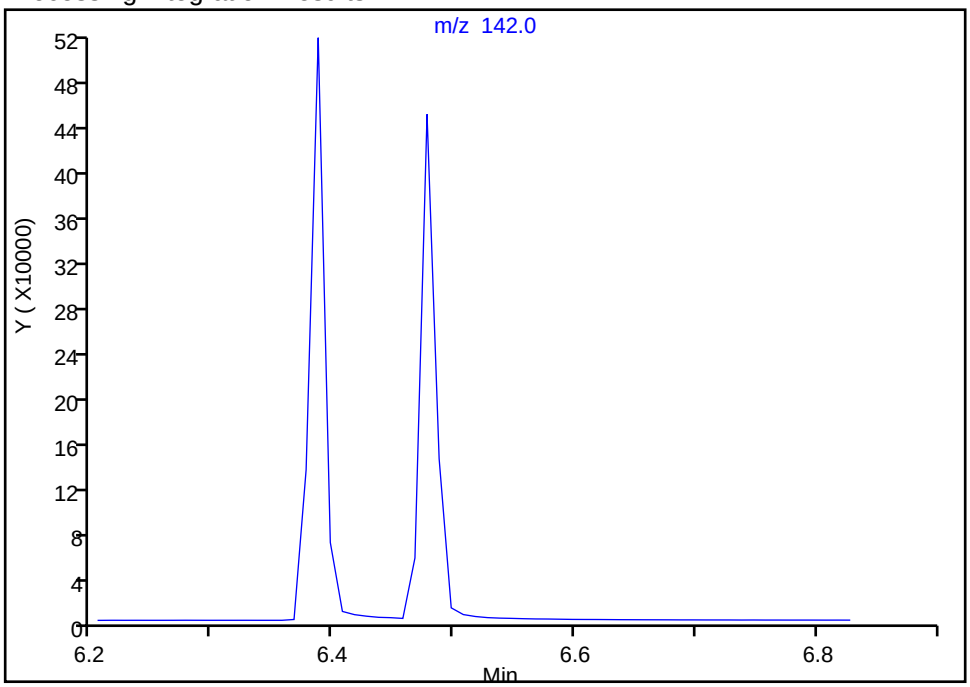
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0402.D				
Injection Date:	24-Feb-2022 17:41:30	Instrument ID:	HP23263		
Lims ID:	IC L6				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

10 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

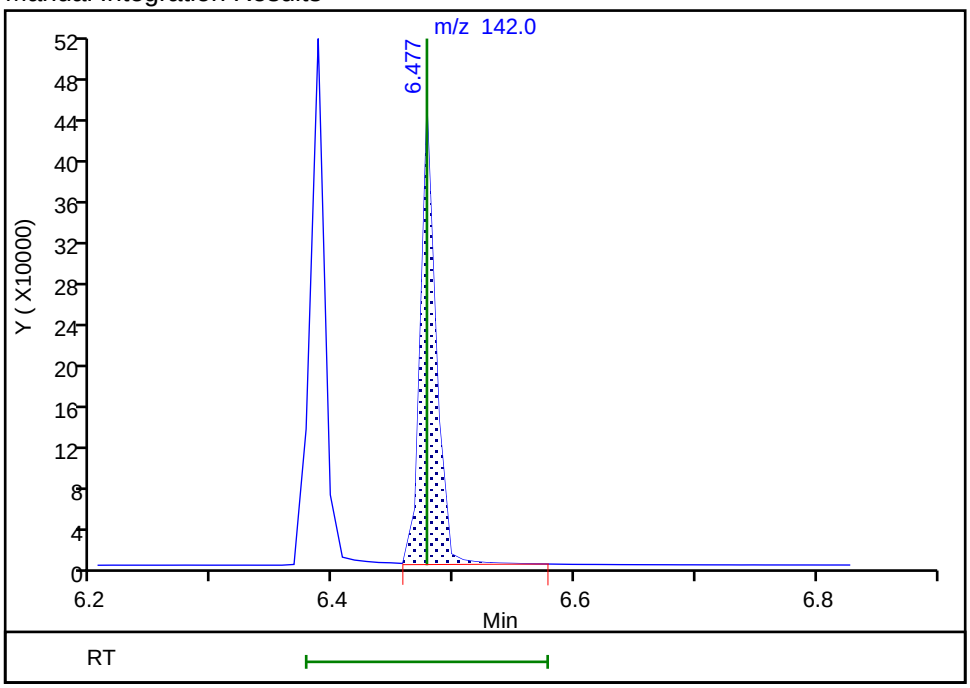
Not Detected
Expected RT: 6.48

Processing Integration Results



Manual Integration Results

RT: 6.48
Area: 398965
Amount: 2.480190
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 18:44:38
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

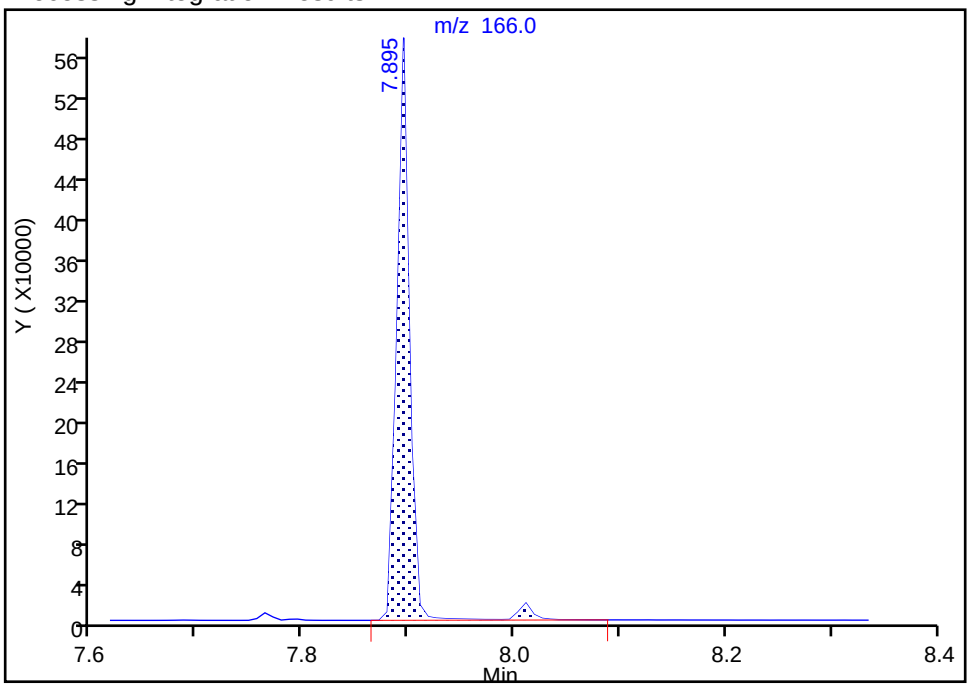
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0402.D				
Injection Date:	24-Feb-2022 17:41:30	Instrument ID:	HP23263		
Lims ID:	IC L6				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

17 Fluorene, CAS: 86-73-7

Signal: 1

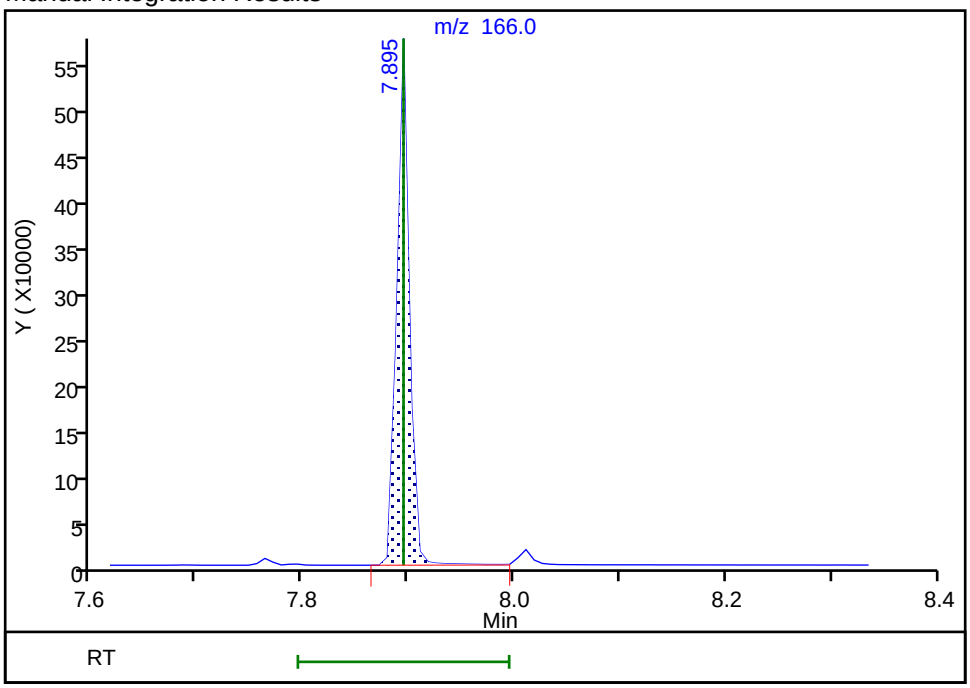
Processing Integration Results

RT: 7.89
Area: 488450
Amount: 2.502821
Amount Units: ug/ml



Manual Integration Results

RT: 7.89
Area: 472708
Amount: 2.474219
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 18:44:45

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

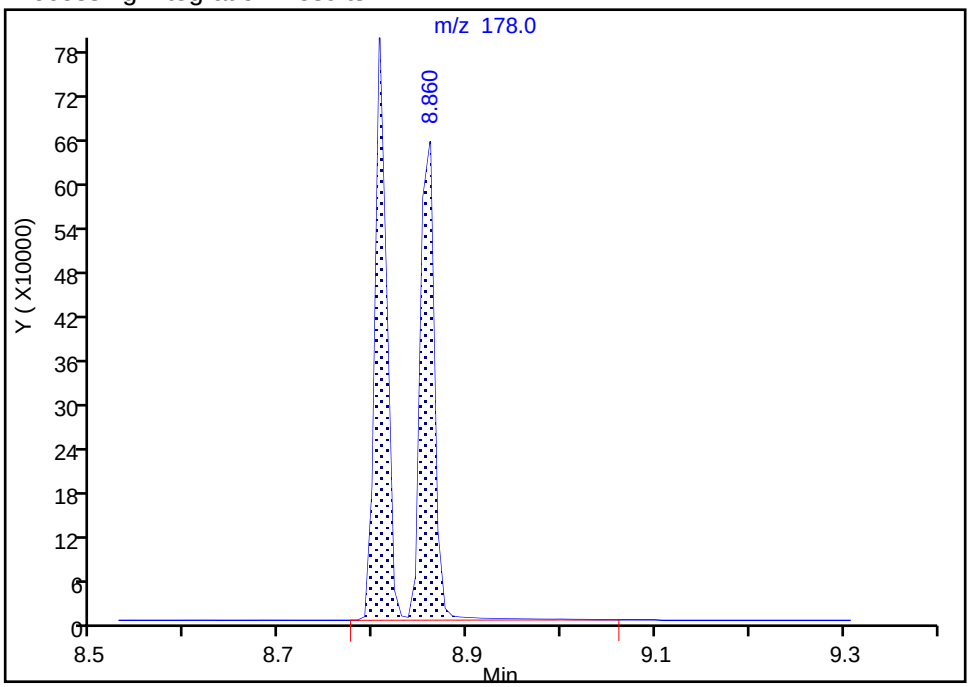
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0402.D				
Injection Date:	24-Feb-2022 17:41:30	Instrument ID:	HP23263		
Lims ID:	IC L6				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

22 Anthracene, CAS: 120-12-7

Signal: 1

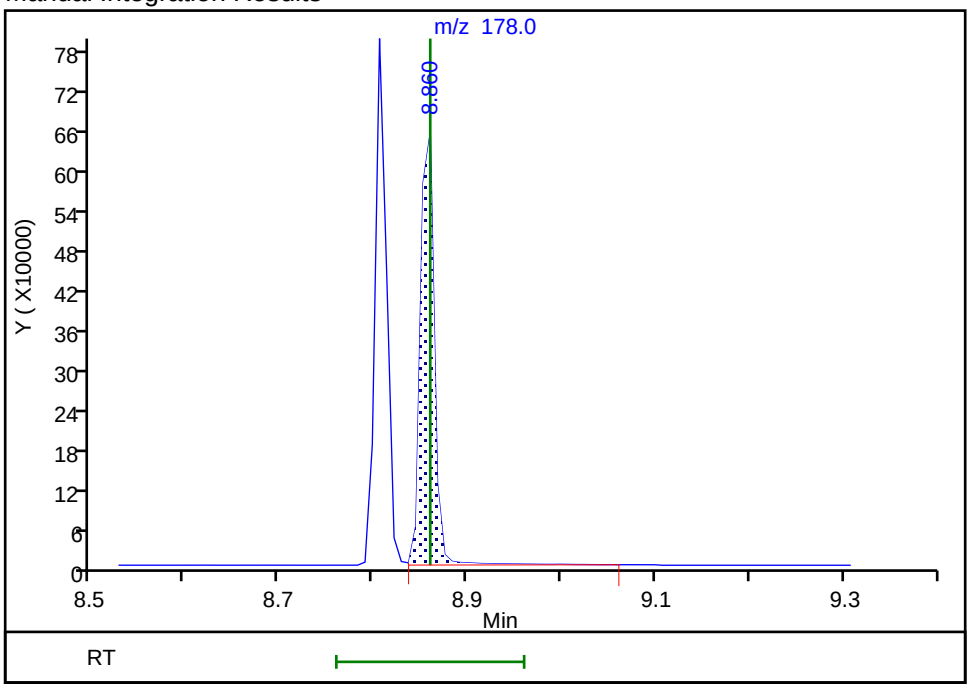
Processing Integration Results

RT: 8.86
Area: 1349651
Amount: 2.888803
Amount Units: ug/ml



Manual Integration Results

RT: 8.86
Area: 674359
Amount: 2.284186
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 18:44:56

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0403.D
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Feb-2022 18:03:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L5
Misc. Info.: 410-0051112-004
Operator ID: kel10217 Instrument ID: HP23263
Sublist: chrom-8270_SIM_HP23263*sub3

Method: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\8270_SIM_HP23263.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 24-Feb-2022 20:11:50 Calib Date: 24-Feb-2022 19:10:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D

Column 1 : DB-5MS 20m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1641

First Level Reviewer: luttek Date: 24-Feb-2022 18:45:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	1.749	1.749	0.000	95	37606	1.00	0.9375	
2 N-Nitrosodimethylamine	74	2.051	2.051	0.000	74	33133	1.00	0.9555	
3 Bis(2-chloroethyl)ether	93	4.267	4.267	0.000	83	67042	1.00	0.9553	
* 4 1,4-Dichlorobenzene-d4	152	4.530	4.517	0.013	99	20845	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	86482	0.2500	0.2500	
6 Naphthalene	128	5.729	5.730	-0.001	99	274304	1.00	0.8427	
7 Quinoline	129	6.054	6.055	0.000	98	163274	1.00	1.03	
8 2-Methylnaphthalene	142	6.385	6.387	-0.002	100	187296	1.00	0.9052	
$ 9 1-Methylnaphthalene-d10	152	6.445	6.447	-0.002	98	140357	1.00	0.8207	Ma
10 1-Methylnaphthalene	142	6.475	6.477	-0.002	94	170600	1.00	0.8897	Ma
11 Dimethyl phthalate	163	7.126	7.118	0.008	98	998721	5.00	4.81	
12 Acenaphthylene	152	7.236	7.239	-0.003	98	276303	1.00	0.9195	
* 13 Acenaphthene-d10	164	7.376	7.379	-0.003	97	38811	0.2500	0.2500	
14 Acenaphthene	154	7.406	7.409	-0.003	90	170825	1.00	0.9532	
15 Dibenzofuran	168	7.576	7.569	0.007	68	263815	1.00	1.00	
16 Diethyl phthalate	149	7.792	7.787	0.005	97	963683	5.00	4.79	
17 Fluorene	166	7.892	7.895	-0.003	97	197942	1.00	0.9465	M
18 N-Nitrosodiphenylamine	169	8.008	8.011	-0.003	99	117546	1.00	1.01	
19 Hexachlorobenzene	284	8.410	8.412	-0.002	89	98201	1.00	0.8695	
* 20 Phenanthrene-d10	188	8.788	8.783	0.005	99	71858	0.2500	0.2500	
21 Phenanthrene	178	8.803	8.806	-0.003	100	290107	1.00	0.9296	
22 Anthracene	178	8.858	8.860	-0.002	100	287183	1.00	0.9203	M
23 Di-n-butyl phthalate	149	9.351	9.352	-0.001	100	1426445	5.00	4.50	
$ 24 Fluoranthene-d10 (Surr)	212	9.921	9.922	-0.001	95	264826	1.00	0.9123	
25 Fluoranthene	202	9.940	9.941	-0.001	95	317786	1.00	0.8627	
26 Pyrene	202	10.153	10.154	-0.001	94	345288	1.00	0.9219	
27 Butyl benzyl phthalate	149	10.826	10.827	-0.001	100	669485	5.00	4.99	
28 Benzo[a]anthracene	228	11.439	11.440	-0.001	99	299336	1.00	0.9712	
* 29 Chrysene-d12	240	11.454	11.456	-0.002	94	63206	0.2500	0.2500	
30 Chrysene	228	11.485	11.486	-0.001	100	311529	1.00	0.9669	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Bis(2-ethylhexyl) phthalate	149	11.508	11.509	-0.001	100	862558	5.00	4.90	
32 Di-n-octyl phthalate	149	12.390	12.391	-0.001	100	1474985	5.00	4.87	
33 Benzo[b]fluoranthene	252	12.866	12.867	-0.001	100	356277	1.00	0.9454	
34 Benzo[k]fluoranthene	252	12.904	12.905	-0.001	100	351993	1.00	0.8766	
35 Benzo[e]pyrene	252	13.257	13.258	-0.001	100	340372	1.00	0.9280	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.295	13.296	-0.001	96	257697	1.00	0.8845	
37 Benzo[a]pyrene	252	13.333	13.335	-0.002	100	325436	1.00	0.9259	
* 38 Perylene-d12	264	13.418	13.419	-0.001	93	76158	0.2500	0.2500	
39 Perylene	252	13.449	13.457	-0.008	100	325457	1.00	0.9161	
40 Indeno[1,2,3-cd]pyrene	276	15.054	15.055	-0.001	93	320019	1.00	0.9227	
41 Dibenz(a,h)anthracene	278	15.110	15.111	-0.001	92	360507	1.00	0.9128	
42 Benzo[g,h,i]perylene	276	15.513	15.521	-0.008	93	385231	1.00	0.8848	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

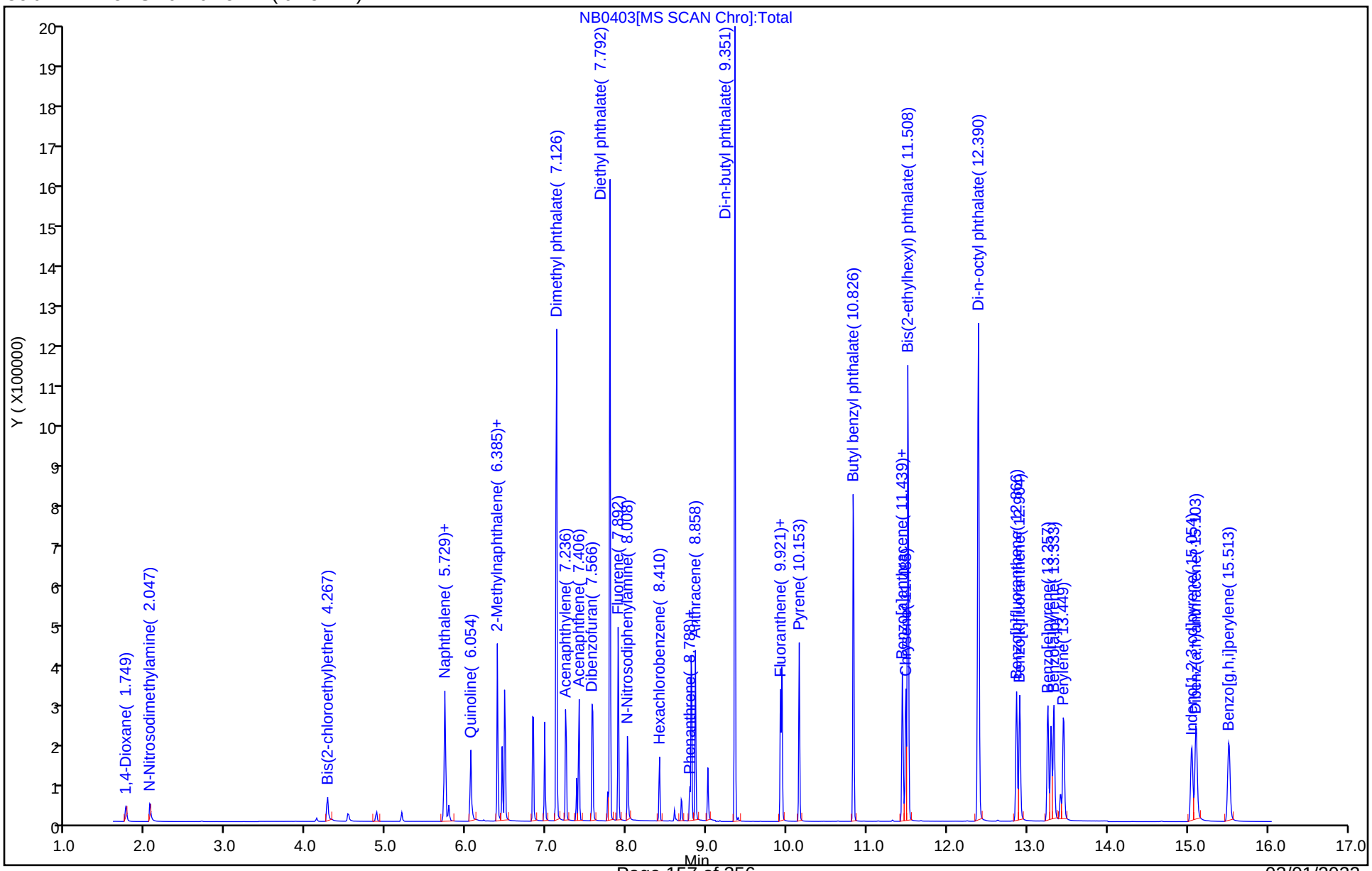
MSS_RVSIM_5_00014 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2022 20:11:51 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0403.D				
Injection Date:	24-Feb-2022 18:03:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	IC L5			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

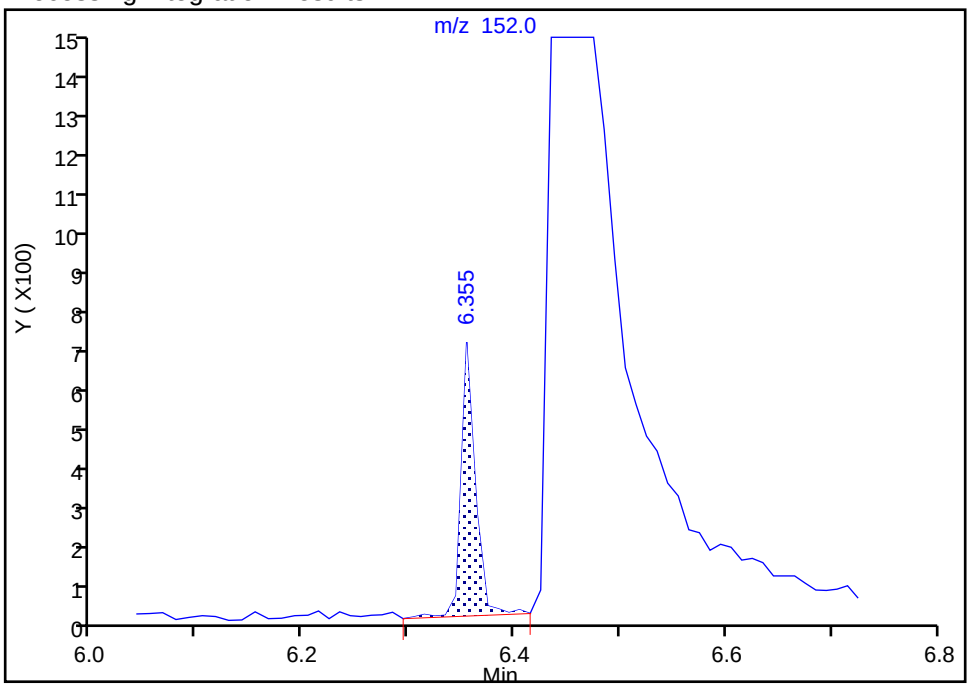
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0403.D				
Injection Date:	24-Feb-2022 18:03:30	Instrument ID:	HP23263		
Lims ID:	IC L5				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

$ 9 1-Methylnaphthalene-d10, CAS: 38072-94-5

Signal: 1

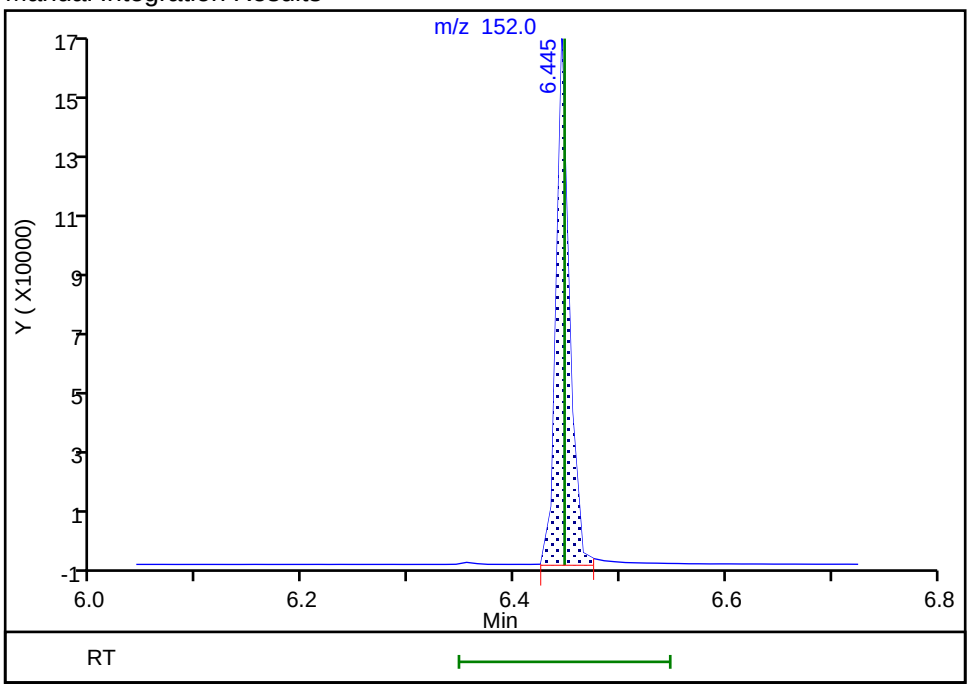
Processing Integration Results

RT: 6.35
Area: 599
Amount: 0.004055
Amount Units: ug/ml



Manual Integration Results

RT: 6.44
Area: 140357
Amount: 0.820694
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:42:07

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

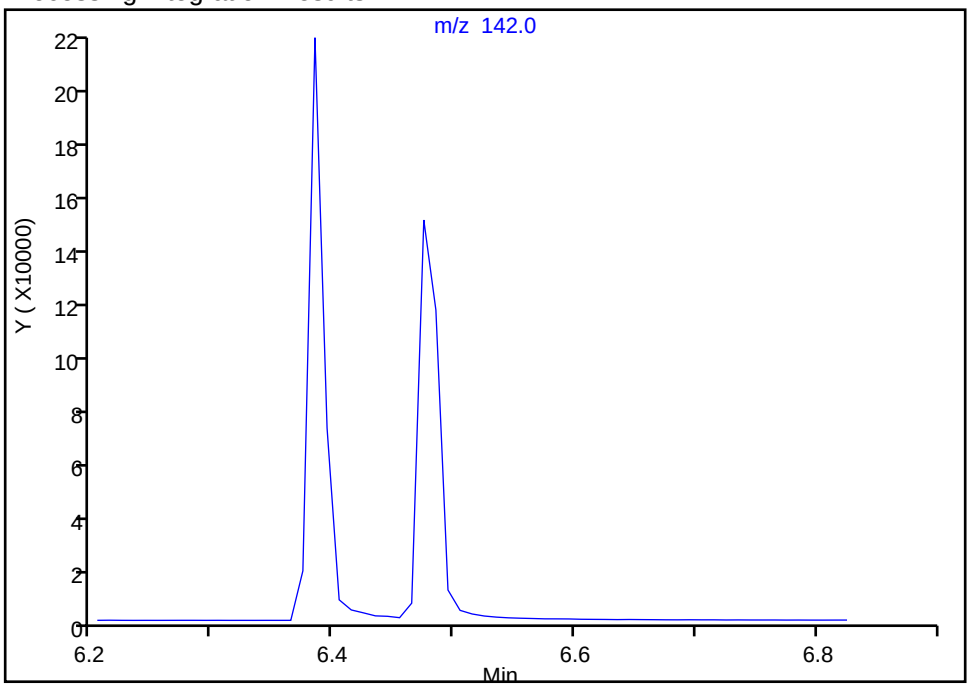
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0403.D				
Injection Date:	24-Feb-2022 18:03:30	Instrument ID:	HP23263		
Lims ID:	IC L5				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

10 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

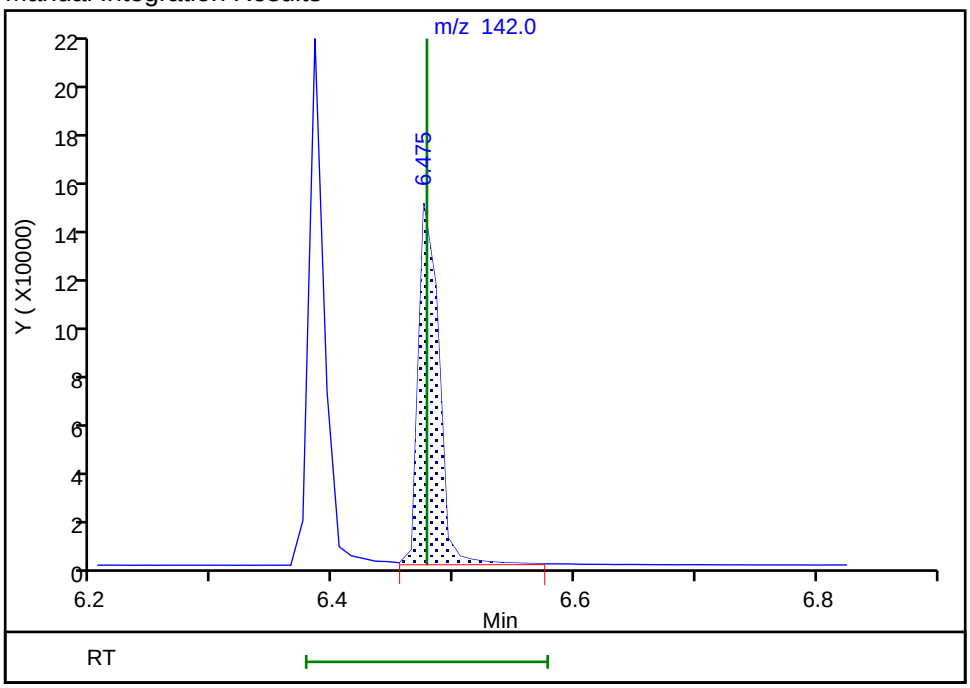
Not Detected
Expected RT: 6.48

Processing Integration Results



Manual Integration Results

RT: 6.47
Area: 170600
Amount: 0.889655
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:42:41
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

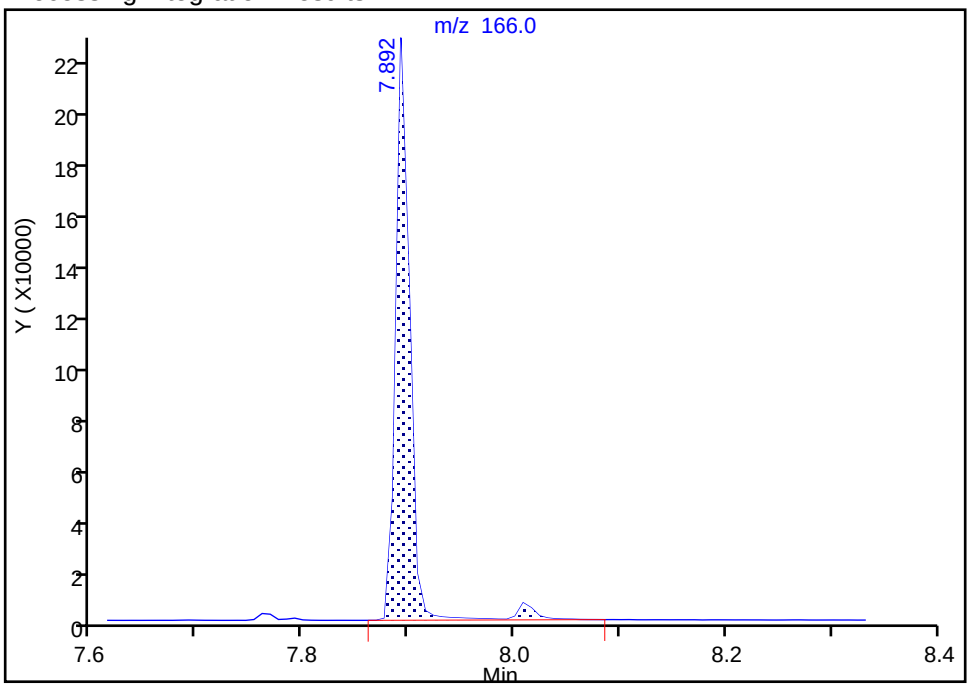
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0403.D				
Injection Date:	24-Feb-2022 18:03:30	Instrument ID:	HP23263		
Lims ID:	IC L5				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

17 Fluorene, CAS: 86-73-7

Signal: 1

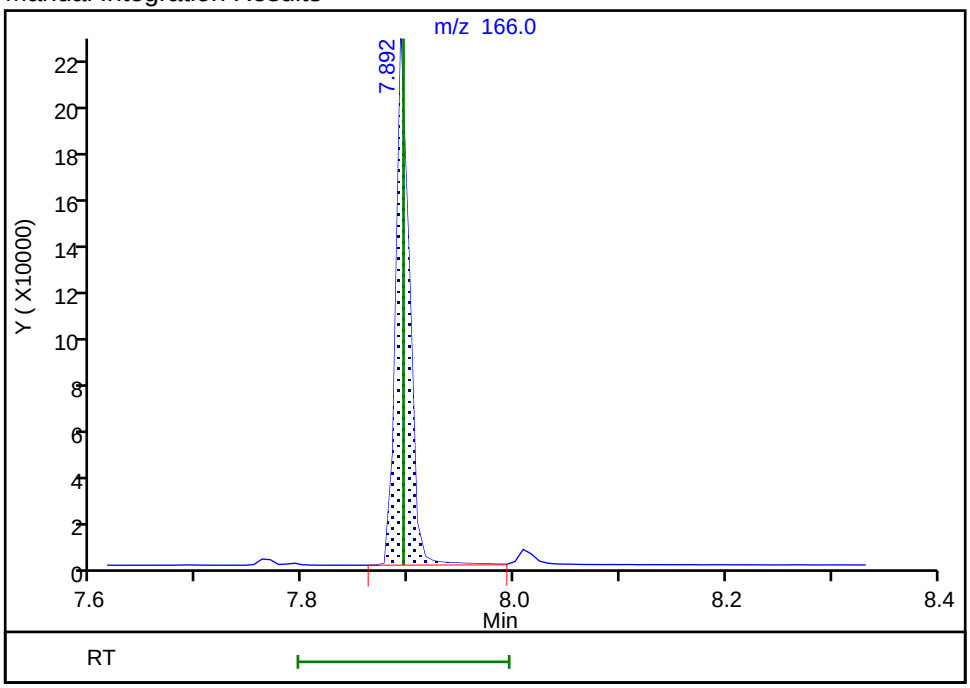
Processing Integration Results

RT: 7.89
Area: 205167
Amount: 0.970896
Amount Units: ug/ml



Manual Integration Results

RT: 7.89
Area: 197942
Amount: 0.946548
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 18:45:34

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

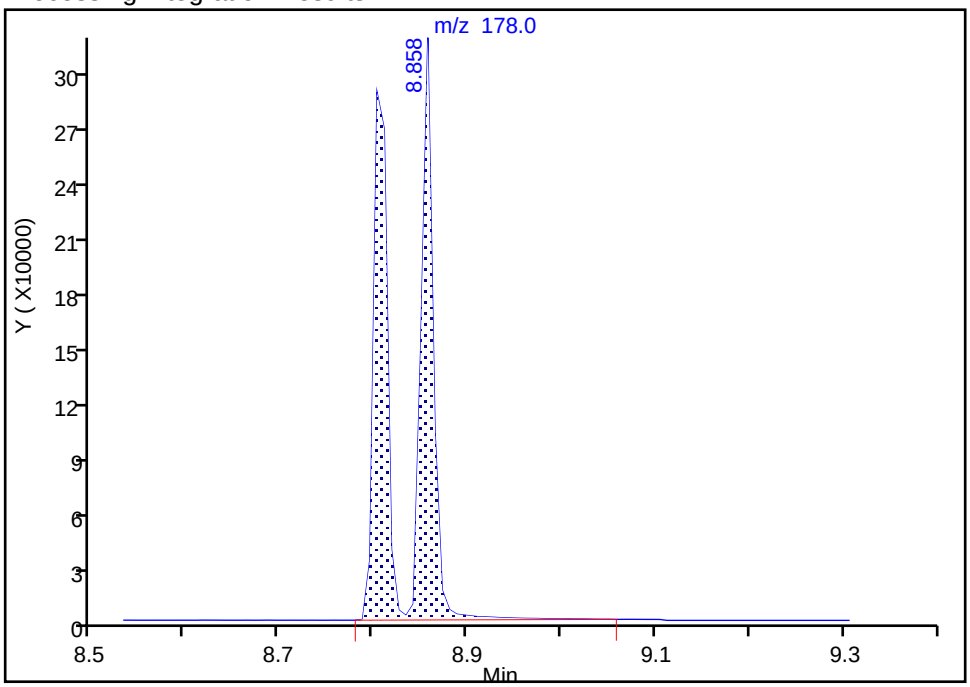
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0403.D				
Injection Date:	24-Feb-2022 18:03:30	Instrument ID:	HP23263		
Lims ID:	IC L5				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

22 Anthracene, CAS: 120-12-7

Signal: 1

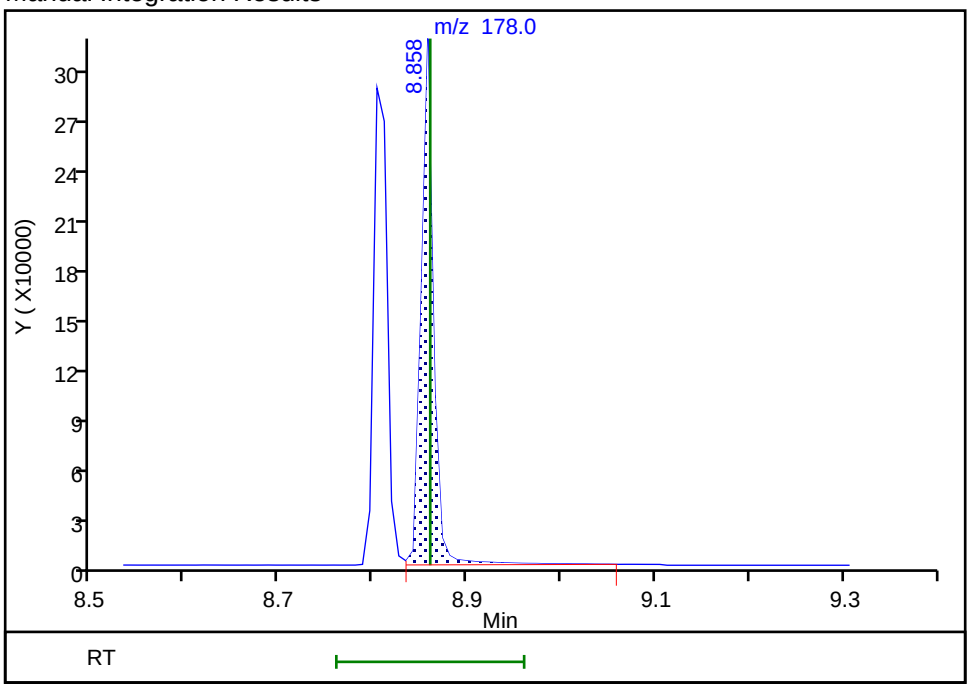
Processing Integration Results

RT: 8.86
Area: 581248
Amount: 1.458026
Amount Units: ug/ml



Manual Integration Results

RT: 8.86
Area: 287183
Amount: 0.920303
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 18:45:41

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0404.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Feb-2022 18:25:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L3
Misc. Info.: 410-0051112-005
Operator ID: kel10217 Instrument ID: HP23263
Sublist: chrom-8270_SIM_HP23263*sub3

Method: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\8270_SIM_HP23263.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 24-Feb-2022 20:11:53 Calib Date: 24-Feb-2022 19:10:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D

Column 1 : DB-5MS 20m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1641

First Level Reviewer: luttek Date: 24-Feb-2022 18:51:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	1.753	1.749	0.004	94	3746	0.1000	0.0951	
2 N-Nitrosodimethylamine	74	2.064	2.051	0.013	73	3327	0.1000	0.0977	M
3 Bis(2-chloroethyl)ether	93	4.292	4.267	0.025	89	5878	0.1000	0.0990	M
* 4 1,4-Dichlorobenzene-d4	152	4.530	4.517	0.013	100	20479	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	73157	0.2500	0.2500	
6 Naphthalene	128	5.742	5.730	0.012	99	28204	0.1000	0.1024	
7 Quinoline	129	6.079	6.055	0.025	98	12322	0.1000	0.0916	
8 2-Methylnaphthalene	142	6.395	6.387	0.008	97	18141	0.1000	0.1036	M
$ 9 1-Methylnaphthalene-d10	152	6.445	6.447	-0.002	99	14830	0.1000	0.1025	
10 1-Methylnaphthalene	142	6.485	6.477	0.008	97	18411	0.1000	0.1067	Ma
11 Dimethyl phthalate	163	7.126	7.118	0.008	96	215296	1.00	1.02	
12 Acenaphthylene	152	7.246	7.239	0.007	96	28999	0.1000	0.0950	
* 13 Acenaphthene-d10	164	7.376	7.379	-0.003	98	39431	0.2500	0.2500	
14 Acenaphthene	154	7.406	7.409	-0.003	90	17200	0.1000	0.0945	
15 Dibenzofuran	168	7.576	7.569	0.007	76	25751	0.1000	0.0958	
16 Diethyl phthalate	149	7.792	7.787	0.005	97	206571	1.00	1.01	
17 Fluorene	166	7.900	7.895	0.005	98	20395	0.1000	0.0960	M
18 N-Nitrosodiphenylamine	169	8.024	8.011	0.013	97	11261	0.1000	0.0943	
19 Hexachlorobenzene	284	8.410	8.412	-0.002	90	10484	0.1000	0.0964	
* 20 Phenanthrene-d10	188	8.788	8.783	0.005	99	69213	0.2500	0.2500	
21 Phenanthrene	178	8.811	8.806	0.005	100	28837	0.1000	0.0959	
22 Anthracene	178	8.858	8.860	-0.002	98	28490	0.1000	0.0948	
23 Di-n-butyl phthalate	149	9.351	9.352	-0.001	100	310194	1.00	1.02	
$ 24 Fluoranthene-d10 (Surr)	212	9.921	9.922	-0.001	96	28250	0.1000	0.1010	
25 Fluoranthene	202	9.940	9.941	-0.001	95	34536	0.1000	0.0973	
26 Pyrene	202	10.153	10.154	-0.001	94	35932	0.1000	0.0963	
27 Butyl benzyl phthalate	149	10.825	10.827	-0.002	100	135329	1.00	1.01	
28 Benzo[a]anthracene	228	11.439	11.440	-0.001	100	28092	0.1000	0.0914	
* 29 Chrysene-d12	240	11.454	11.456	-0.002	86	62997	0.2500	0.2500	
30 Chrysene	228	11.485	11.486	-0.001	100	33828	0.1000	0.0998	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Bis(2-ethylhexyl) phthalate	149	11.508	11.509	-0.001	100	176767	1.00	1.01	
32 Di-n-octyl phthalate	149	12.382	12.391	-0.009	100	298619	1.00	1.01	
33 Benzo[b]fluoranthene	252	12.866	12.867	-0.001	100	34618	0.1000	0.0941	
34 Benzo[k]fluoranthene	252	12.904	12.905	-0.001	100	38271	0.1000	0.0977	
35 Benzo[e]pyrene	252	13.257	13.258	-0.001	100	35174	0.1000	0.0983	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.295	13.296	-0.001	96	26838	0.1000	0.0944	
37 Benzo[a]pyrene	252	13.333	13.335	-0.002	100	33624	0.1000	0.0980	
* 38 Perylene-d12	264	13.418	13.419	-0.001	93	74326	0.2500	0.2500	
39 Perylene	252	13.448	13.457	-0.009	100	33616	0.1000	0.0970	
40 Indeno[1,2,3-cd]pyrene	276	15.054	15.055	-0.001	93	33292	0.1000	0.0984	
41 Dibenz(a,h)anthracene	278	15.110	15.111	-0.001	93	37194	0.1000	0.0965	
42 Benzo[g,h,i]perylene	276	15.513	15.521	-0.008	93	42038	0.1000	0.0989	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

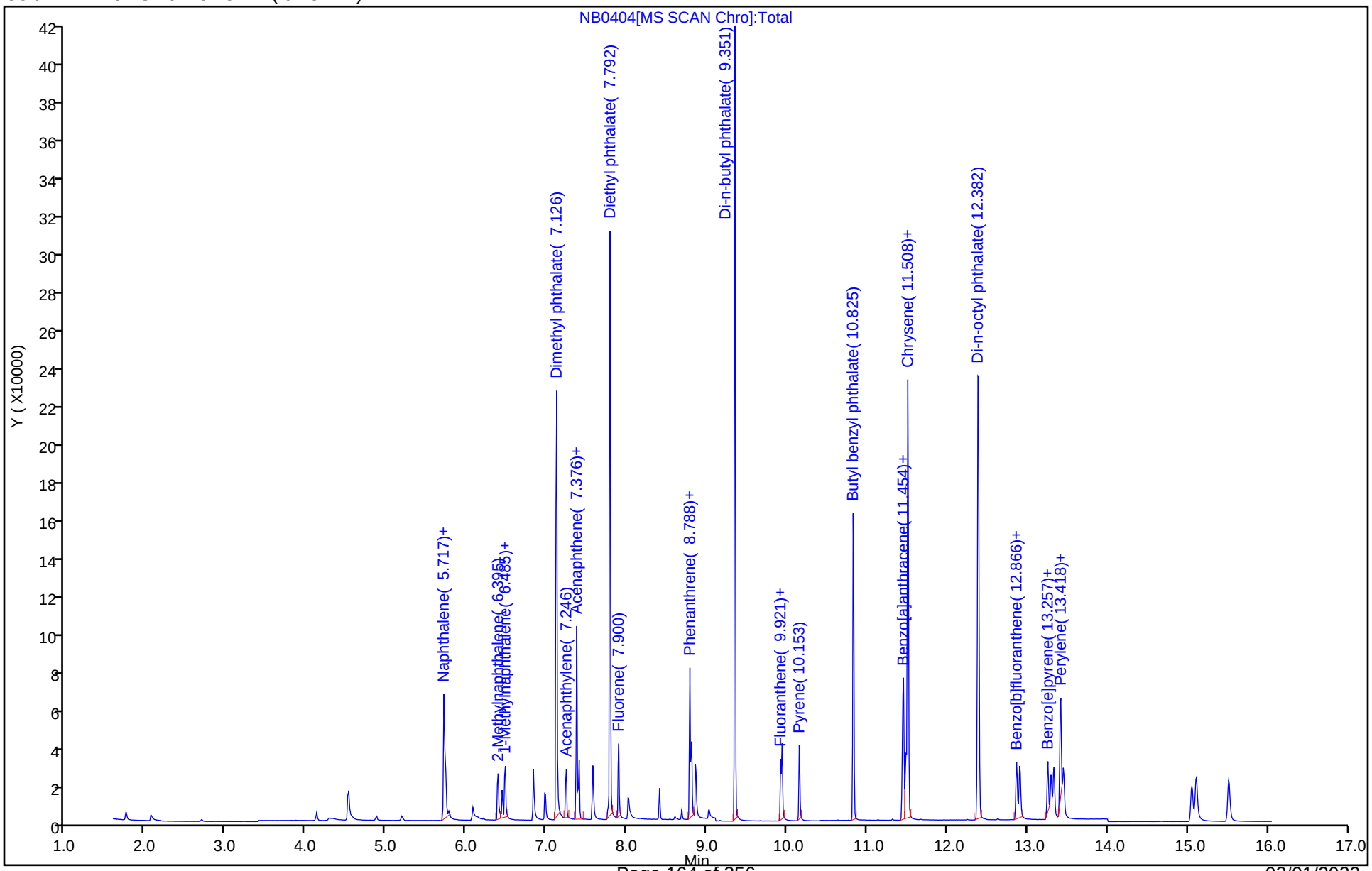
MSS_RVSIM_3_00013 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2022 20:11:54 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0404.D				
Injection Date:	24-Feb-2022 18:25:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	IC L3			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

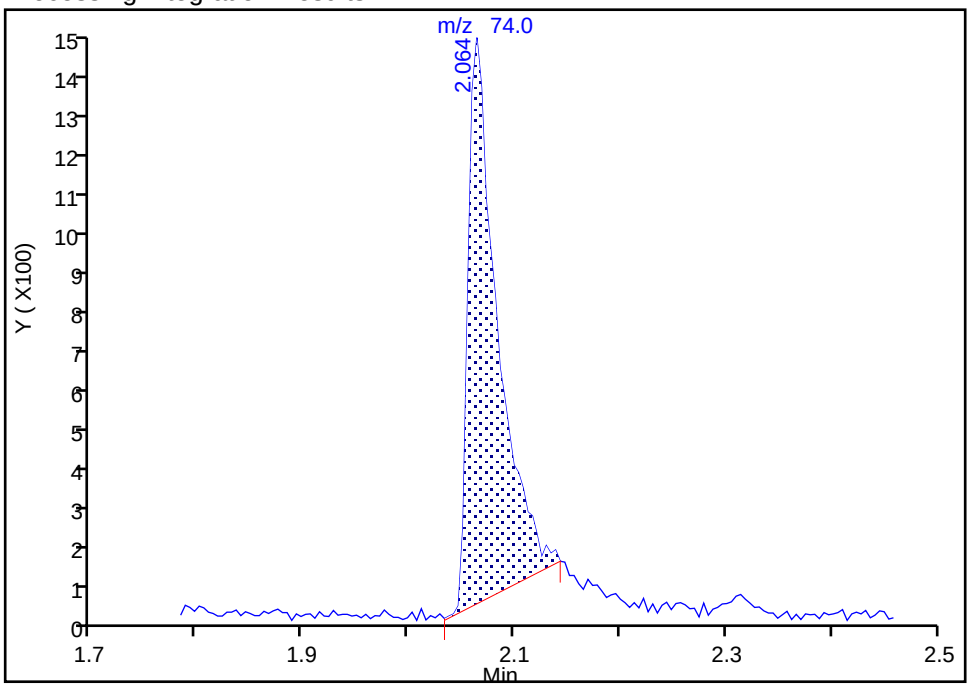
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0404.D				
Injection Date:	24-Feb-2022 18:25:30	Instrument ID:	HP23263		
Lims ID:	IC L3				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

2 N-Nitrosodimethylamine, CAS: 62-75-9

Signal: 1

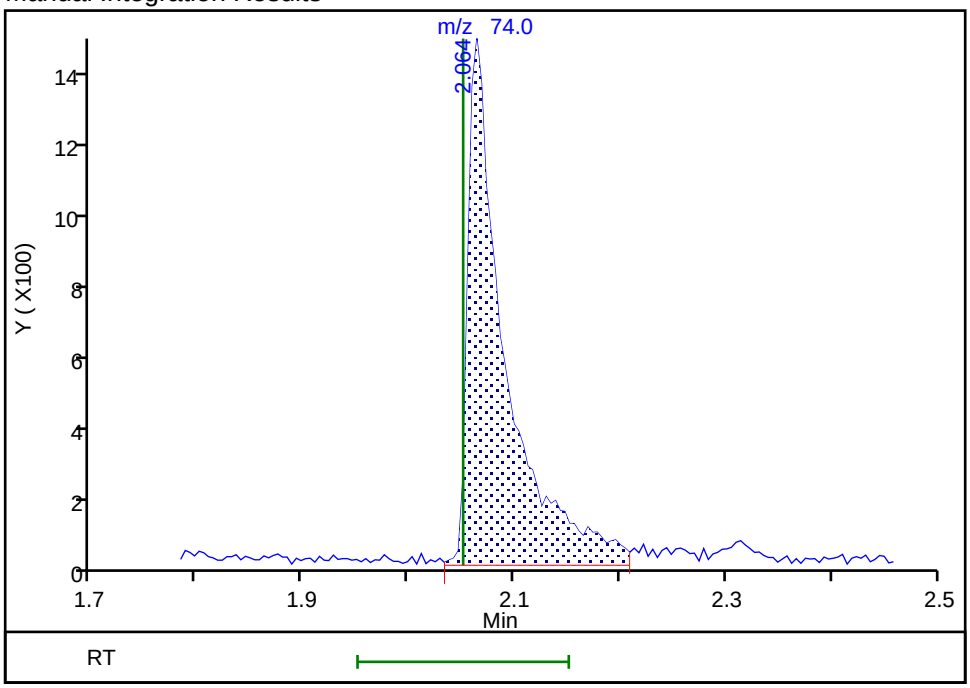
Processing Integration Results

RT: 2.06
Area: 2537
Amount: 0.081230
Amount Units: ug/ml



Manual Integration Results

RT: 2.06
Area: 3327
Amount: 0.097664
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 18:50:22

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

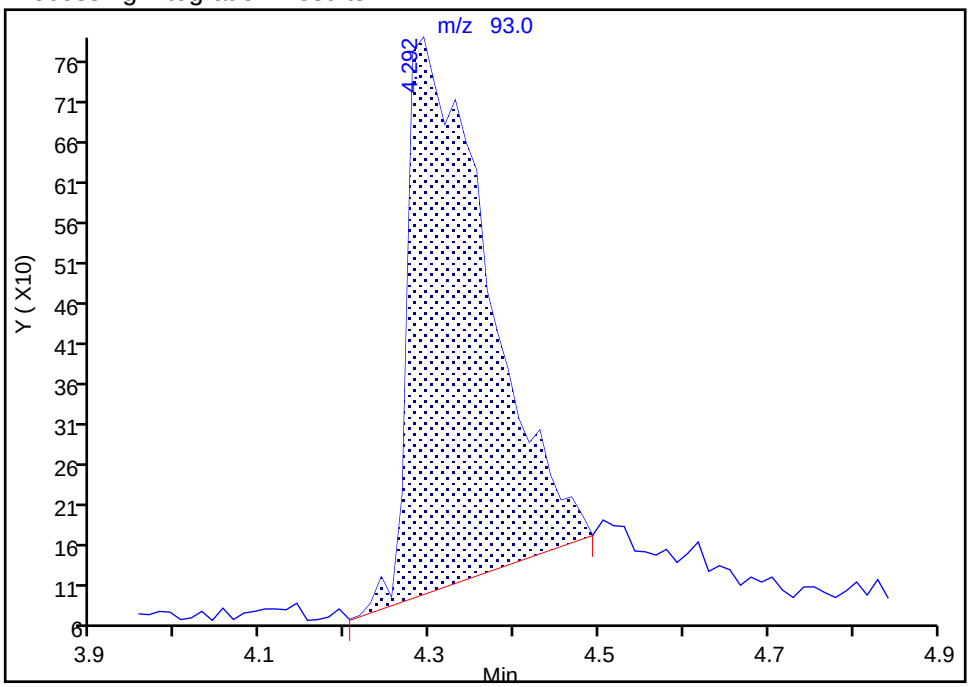
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0404.D				
Injection Date:	24-Feb-2022 18:25:30	Instrument ID:	HP23263		
Lims ID:	IC L3				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

3 Bis(2-chloroethyl)ether, CAS: 111-44-4

Signal: 1

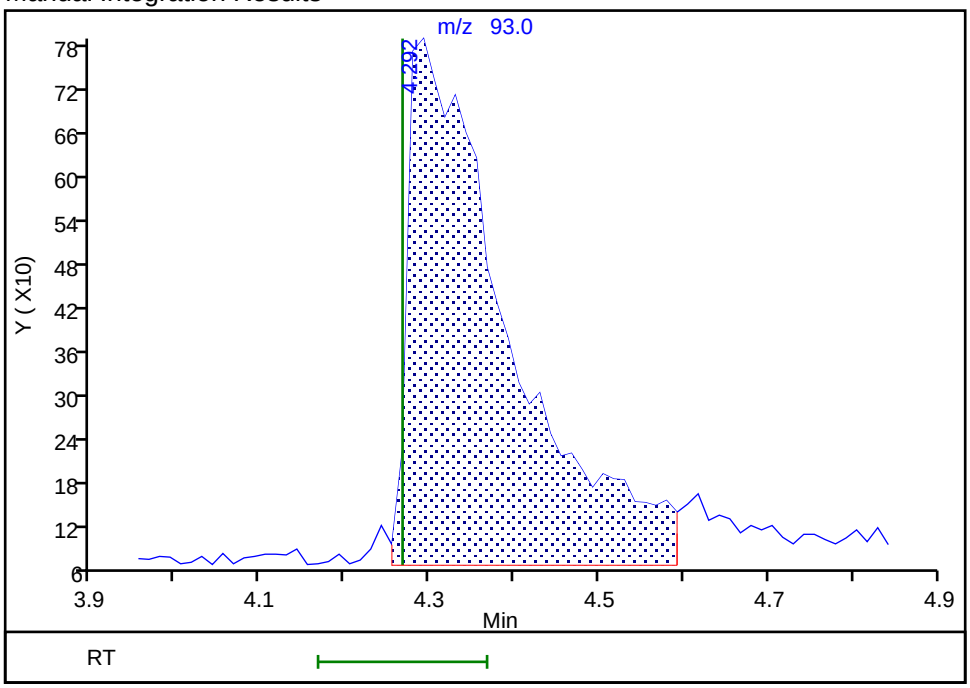
Processing Integration Results

RT: 4.29
Area: 4449
Amount: 0.075897
Amount Units: ug/ml



Manual Integration Results

RT: 4.29
Area: 5878
Amount: 0.099012
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 18:50:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

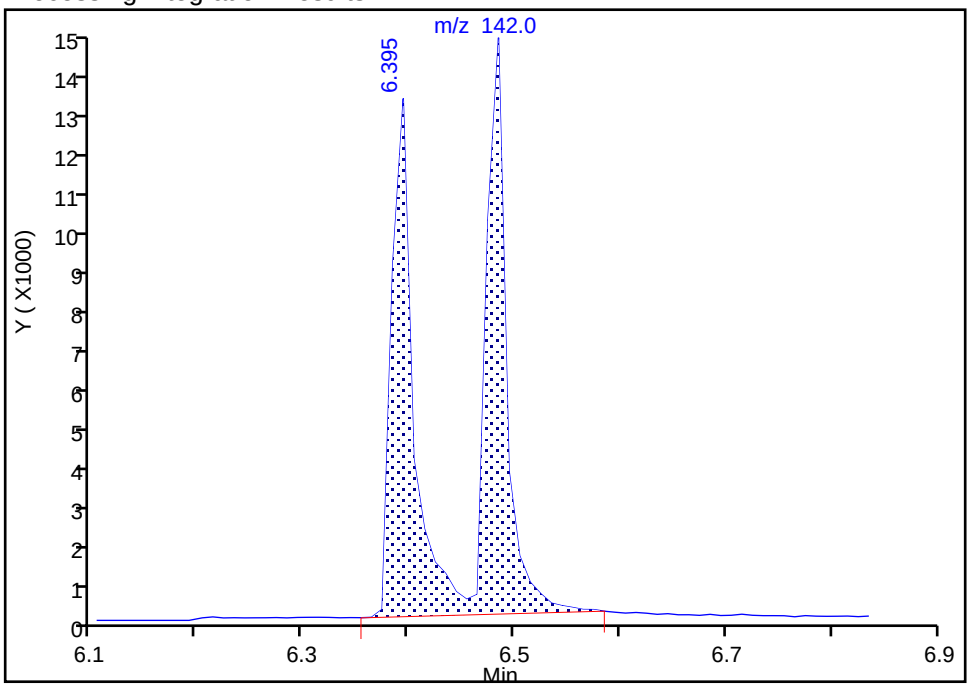
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0404.D				
Injection Date:	24-Feb-2022 18:25:30	Instrument ID:	HP23263		
Lims ID:	IC L3				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

8 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

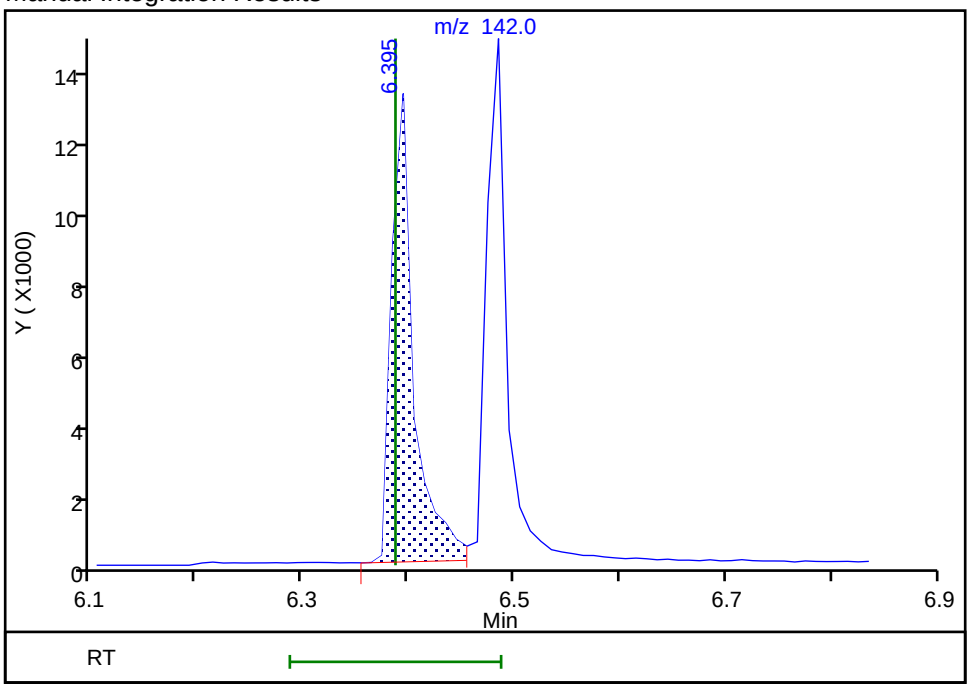
Processing Integration Results

RT: 6.39
Area: 36650
Amount: 0.165482
Amount Units: ug/ml



Manual Integration Results

RT: 6.39
Area: 18141
Amount: 0.103649
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 18:50:43

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC

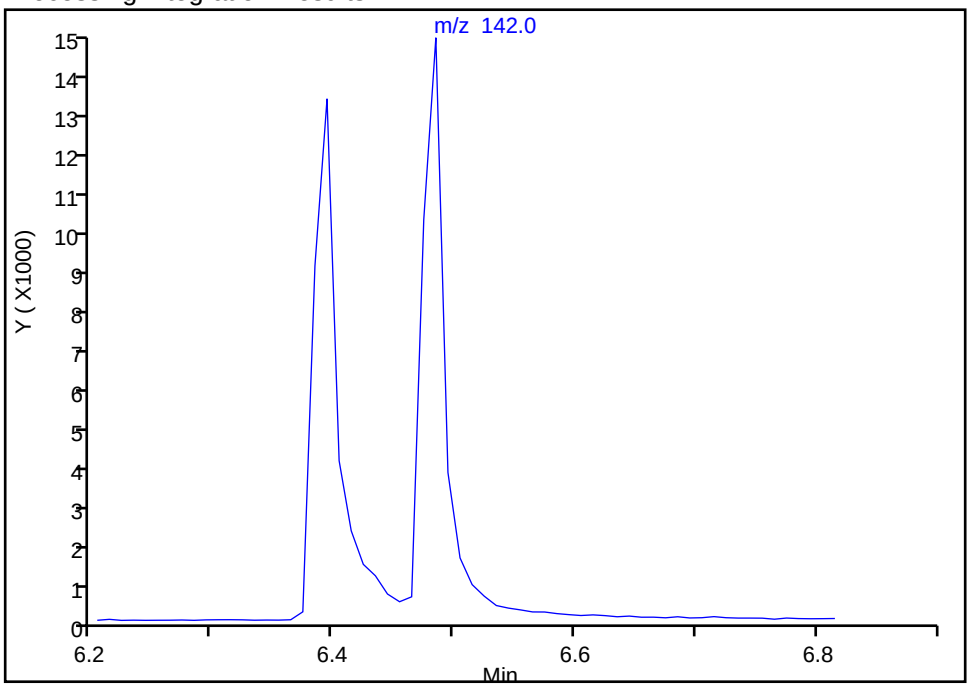
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0404.D				
Injection Date:	24-Feb-2022 18:25:30	Instrument ID:	HP23263		
Lims ID:	IC L3				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

10 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

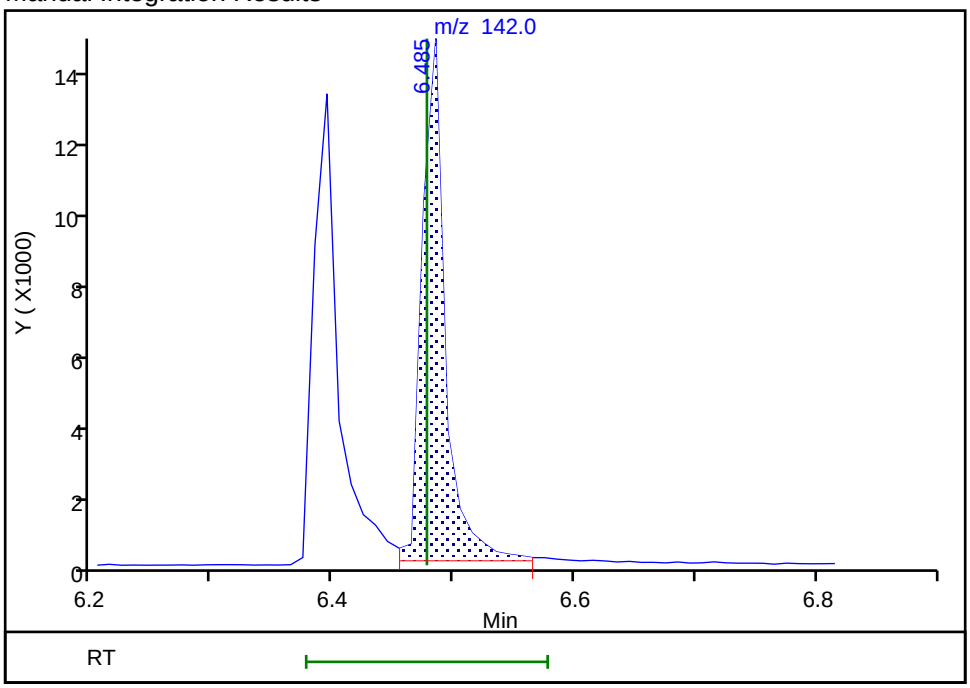
Not Detected
Expected RT: 6.48

Processing Integration Results



Manual Integration Results

RT: 6.48
Area: 18411
Amount: 0.106667
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:46:09
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

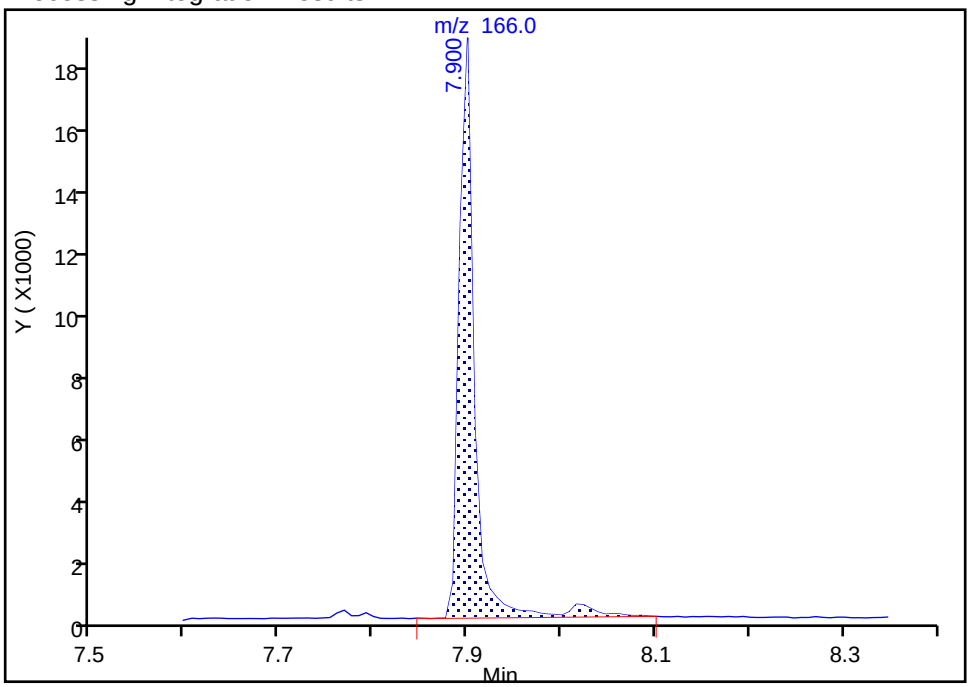
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0404.D				
Injection Date:	24-Feb-2022 18:25:30	Instrument ID:	HP23263		
Lims ID:	IC L3				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

17 Fluorene, CAS: 86-73-7

Signal: 1

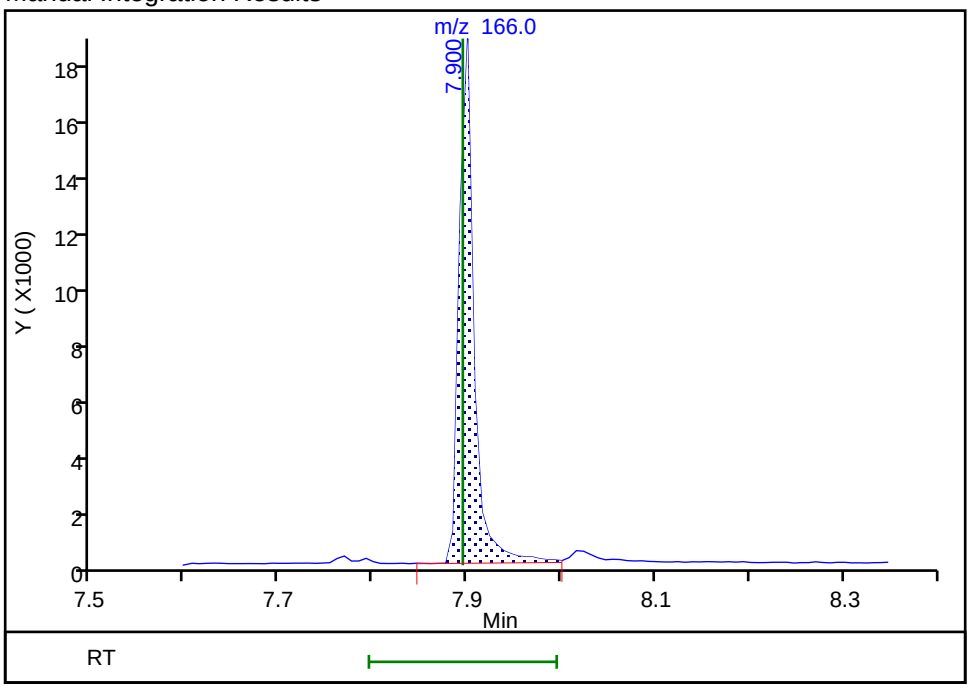
Processing Integration Results

RT: 7.90
Area: 21234
Amount: 0.100033
Amount Units: ug/ml



Manual Integration Results

RT: 7.90
Area: 20395
Amount: 0.095994
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 18:50:52

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0405.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Feb-2022 18:48:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L2
Misc. Info.: 410-0051112-006
Operator ID: kel10217 Instrument ID: HP23263
Sublist: chrom-8270_SIM_HP23263*sub3

Method: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\8270_SIM_HP23263.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 24-Feb-2022 20:11:57 Calib Date: 24-Feb-2022 19:10:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D

Column 1 : DB-5MS 20m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1641

First Level Reviewer: luttek Date: 24-Feb-2022 19:22:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	1.758	1.749	0.009	94	2095	0.0500	0.0537	
2 N-Nitrosodimethylamine	74	2.073	2.051	0.022	75	1673	0.0500	0.0496	M
3 Bis(2-chloroethyl)ether	93	4.367	4.267	0.100	90	3250	0.0500	0.0554	M
* 4 1,4-Dichlorobenzene-d4	152	4.530	4.517	0.013	100	20287	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	72352	0.2500	0.2500	
6 Naphthalene	128	5.742	5.730	0.012	99	13929	0.0500	0.0512	
7 Quinoline	129	6.092	6.055	0.038	97	5869	0.0500	0.0441	M
8 2-Methylnaphthalene	142	6.397	6.387	0.010	99	8694	0.0500	0.0502	M
$ 9 1-Methylnaphthalene-d10	152	6.447	6.447	0.000	99	7543	0.0500	0.0527	
10 1-Methylnaphthalene	142	6.487	6.477	0.010	97	9321	0.0500	0.0508	M
11 Dimethyl phthalate	163	7.118	7.118	0.000	100	107151	0.5000	0.5083	
12 Acenaphthylene	152	7.249	7.239	0.010	96	14701	0.0500	0.0482	
* 13 Acenaphthene-d10	164	7.379	7.379	0.000	96	39396	0.2500	0.2500	
14 Acenaphthene	154	7.409	7.409	0.000	67	8867	0.0500	0.0487	
15 Dibenzofuran	168	7.579	7.569	0.010	77	13391	0.0500	0.0498	
16 Diethyl phthalate	149	7.787	7.787	0.000	100	104278	0.5000	0.5101	
17 Fluorene	166	7.903	7.895	0.008	100	10048	0.0500	0.0473	
18 N-Nitrosodiphenylamine	169	8.026	8.011	0.015	97	5299	0.0500	0.0406	
19 Hexachlorobenzene	284	8.412	8.412	0.000	88	5355	0.0500	0.0492	
* 20 Phenanthrene-d10	188	8.791	8.783	0.008	99	69292	0.2500	0.2500	
21 Phenanthrene	178	8.806	8.806	0.000	100	14642	0.0500	0.0487	
22 Anthracene	178	8.860	8.860	0.000	100	14154	0.0500	0.0470	
23 Di-n-butyl phthalate	149	9.352	9.352	0.000	100	160371	0.5000	0.5249	
$ 24 Fluoranthene-d10 (Surr)	212	9.922	9.922	0.000	95	15547	0.0500	0.0555	
25 Fluoranthene	202	9.941	9.941	0.000	95	17911	0.0500	0.0504	
26 Pyrene	202	10.154	10.154	0.000	94	18507	0.0500	0.0465	
27 Butyl benzyl phthalate	149	10.827	10.827	0.000	100	66804	0.5000	0.4691	
28 Benzo[a]anthracene	228	11.440	11.440	0.000	94	14290	0.0500	0.0437	
* 29 Chrysene-d12	240	11.456	11.456	0.000	84	67116	0.2500	0.2500	
30 Chrysene	228	11.486	11.486	0.000	100	18990	0.0500	0.0497	M

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Bis(2-ethylhexyl) phthalate	149	11.509	11.509	0.000	100	89502	0.5000	0.4786	
32 Di-n-octyl phthalate	149	12.384	12.391	-0.007	100	149629	0.5000	0.4963	
33 Benzo[b]fluoranthene	252	12.867	12.867	0.000	100	17547	0.0500	0.0468	
34 Benzo[k]fluoranthene	252	12.905	12.905	0.000	100	19591	0.0500	0.0490	
35 Benzo[e]pyrene	252	13.258	13.258	0.000	100	17628	0.0500	0.0483	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.296	13.296	0.000	95	14303	0.0500	0.0493	
37 Benzo[a]pyrene	252	13.335	13.335	0.000	100	17137	0.0500	0.0490	
* 38 Perylene-d12	264	13.411	13.419	-0.008	95	75783	0.2500	0.2500	
39 Perylene	252	13.450	13.457	-0.007	100	16882	0.0500	0.0478	
40 Indeno[1,2,3-cd]pyrene	276	15.055	15.055	0.000	93	16466	0.0500	0.0477	
41 Dibenz(a,h)anthracene	278	15.111	15.111	0.000	93	19442	0.0500	0.0495	
42 Benzo[g,h,i]perylene	276	15.514	15.521	-0.007	93	20760	0.0500	0.0479	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

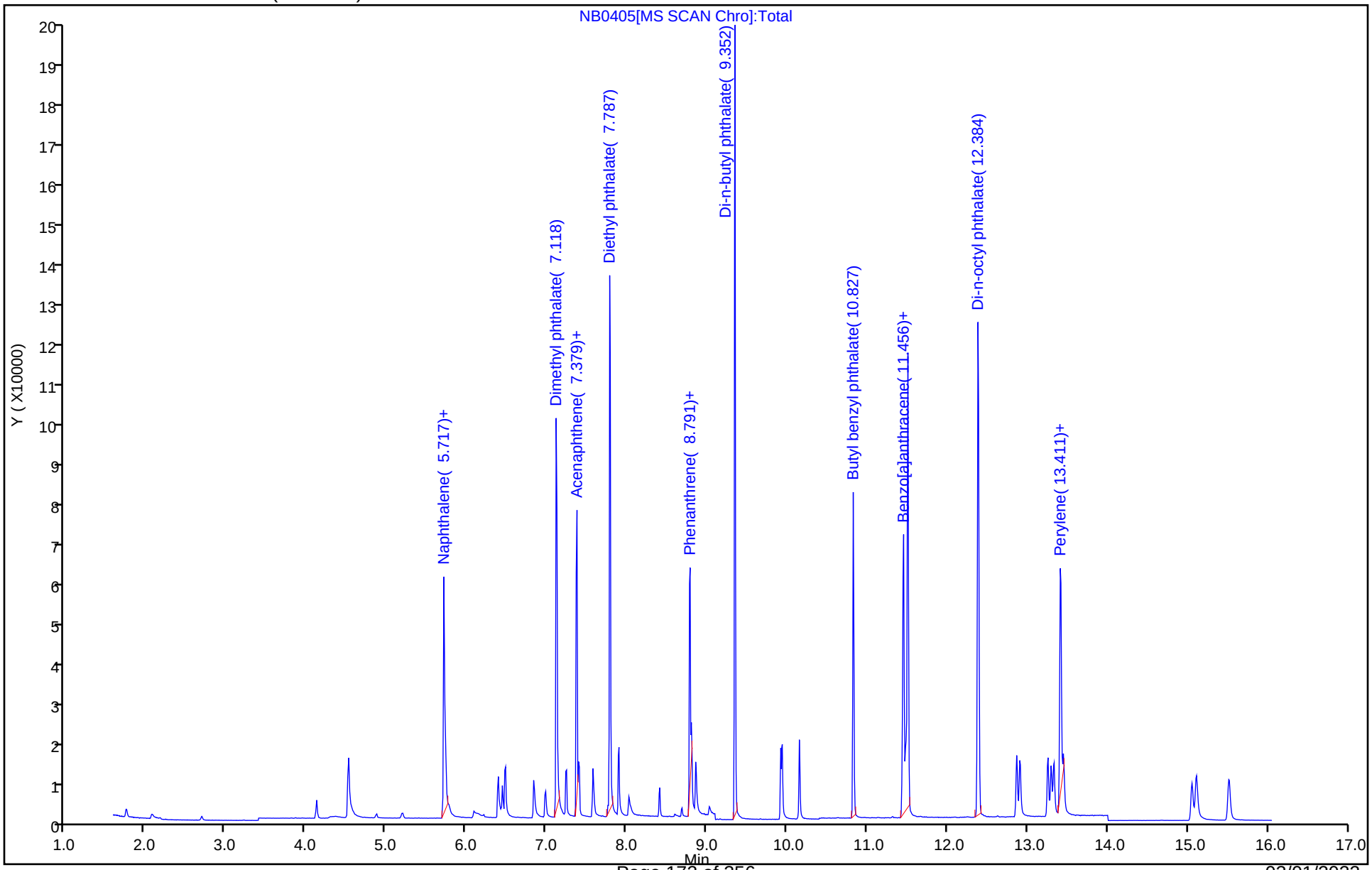
MSS_RVSIM_2_00015 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2022 20:11:57 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0405.D				
Injection Date:	24-Feb-2022 18:48:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	IC L2			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

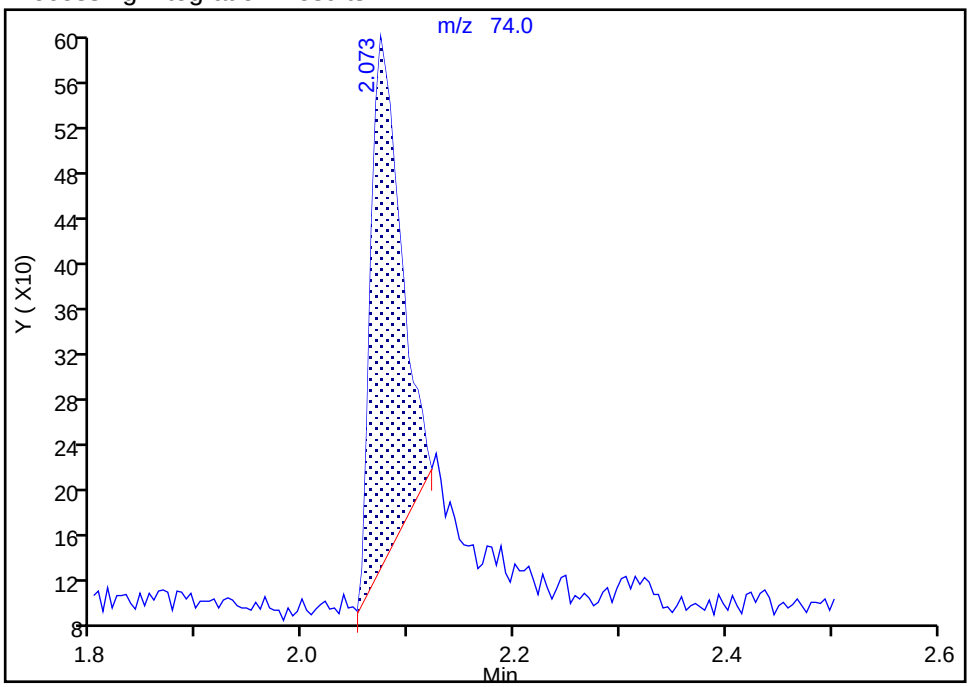
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0405.D				
Injection Date:	24-Feb-2022 18:48:30	Instrument ID:	HP23263		
Lims ID:	IC L2				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

2 N-Nitrosodimethylamine, CAS: 62-75-9

Signal: 1

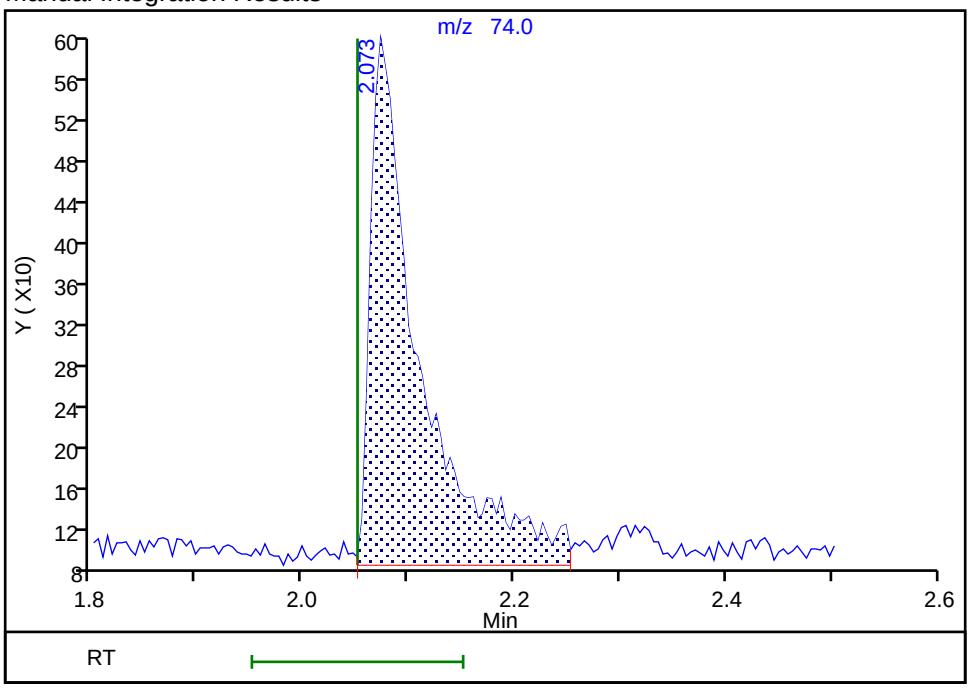
Processing Integration Results

RT: 2.07
Area: 914
Amount: 0.042701
Amount Units: ug/ml



Manual Integration Results

RT: 2.07
Area: 1673
Amount: 0.049576
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:21:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

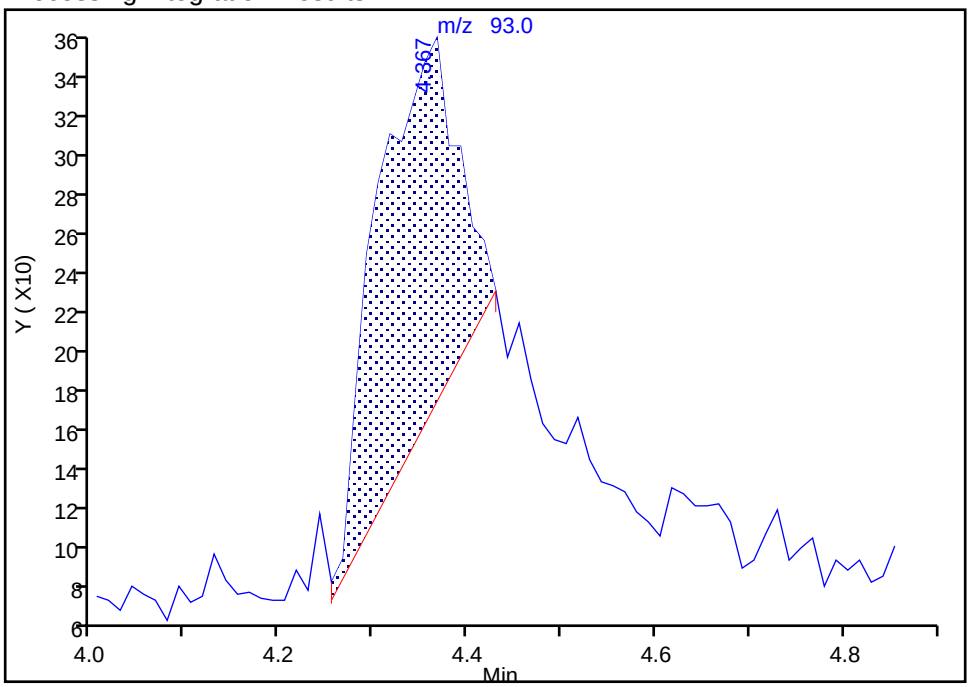
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0405.D				
Injection Date:	24-Feb-2022 18:48:30	Instrument ID:	HP23263		
Lims ID:	IC L2				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

3 Bis(2-chloroethyl)ether, CAS: 111-44-4

Signal: 1

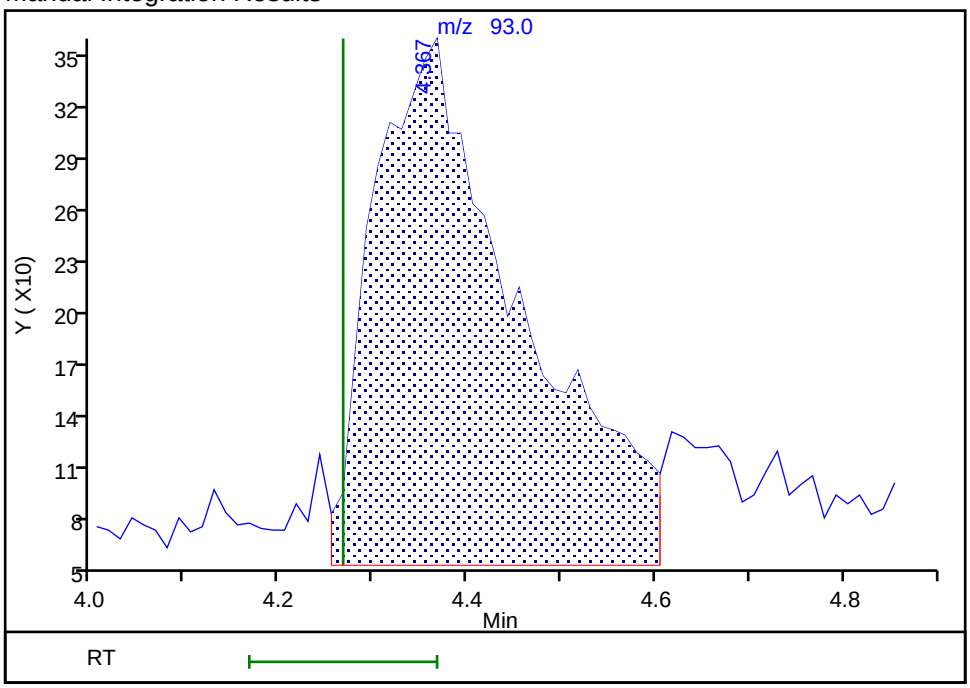
Processing Integration Results

RT: 4.37
Area: 1181
Amount: 0.045326
Amount Units: ug/ml



Manual Integration Results

RT: 4.37
Area: 3250
Amount: 0.055354
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:21:38

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

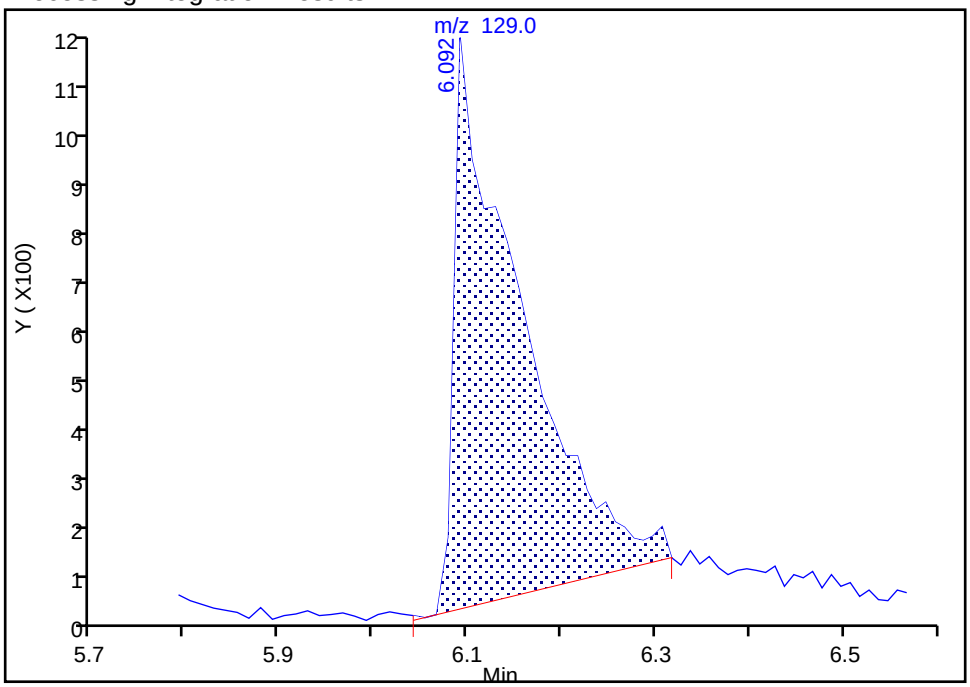
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0405.D				
Injection Date:	24-Feb-2022 18:48:30	Instrument ID:	HP23263		
Lims ID:	IC L2				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

7 Quinoline, CAS: 91-22-5

Signal: 1

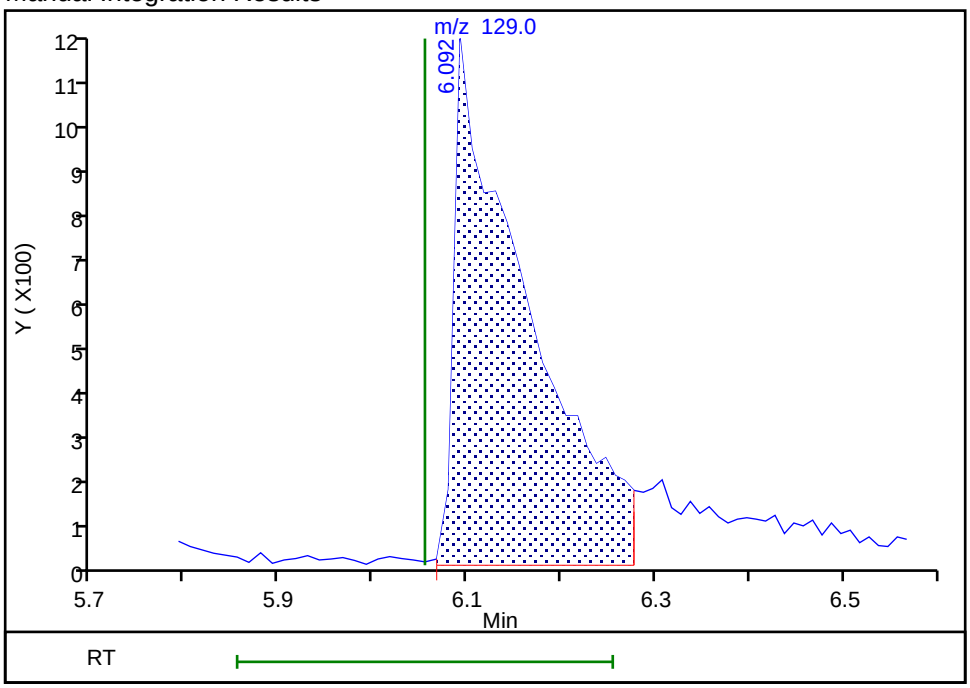
Processing Integration Results

RT: 6.09
Area: 5254
Amount: 0.050527
Amount Units: ug/ml



Manual Integration Results

RT: 6.09
Area: 5869
Amount: 0.044097
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:21:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

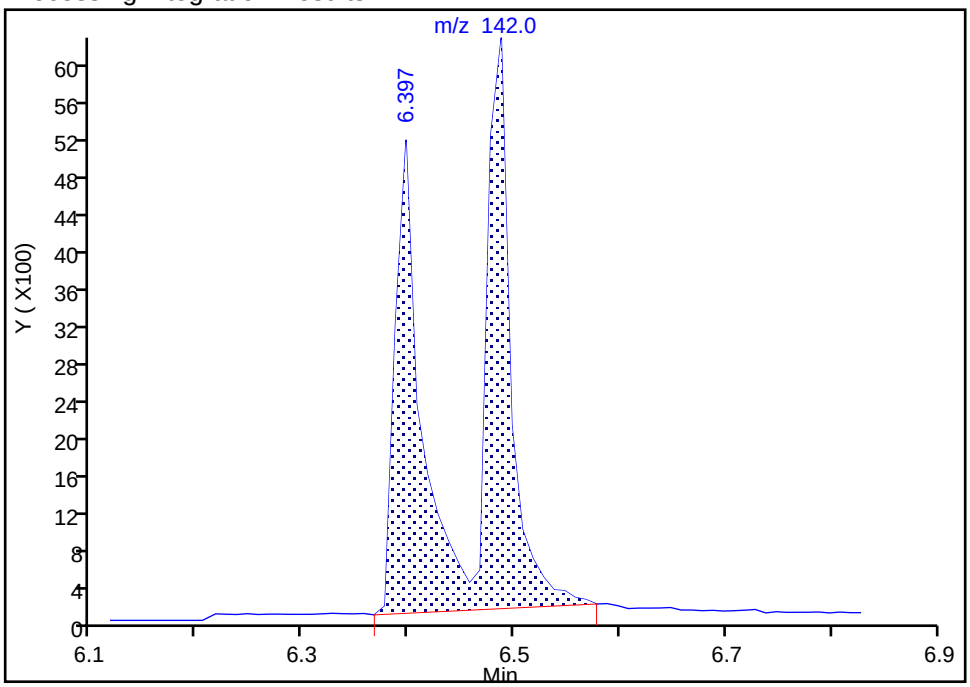
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0405.D				
Injection Date:	24-Feb-2022 18:48:30	Instrument ID:	HP23263		
Lims ID:	IC L2				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

8 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

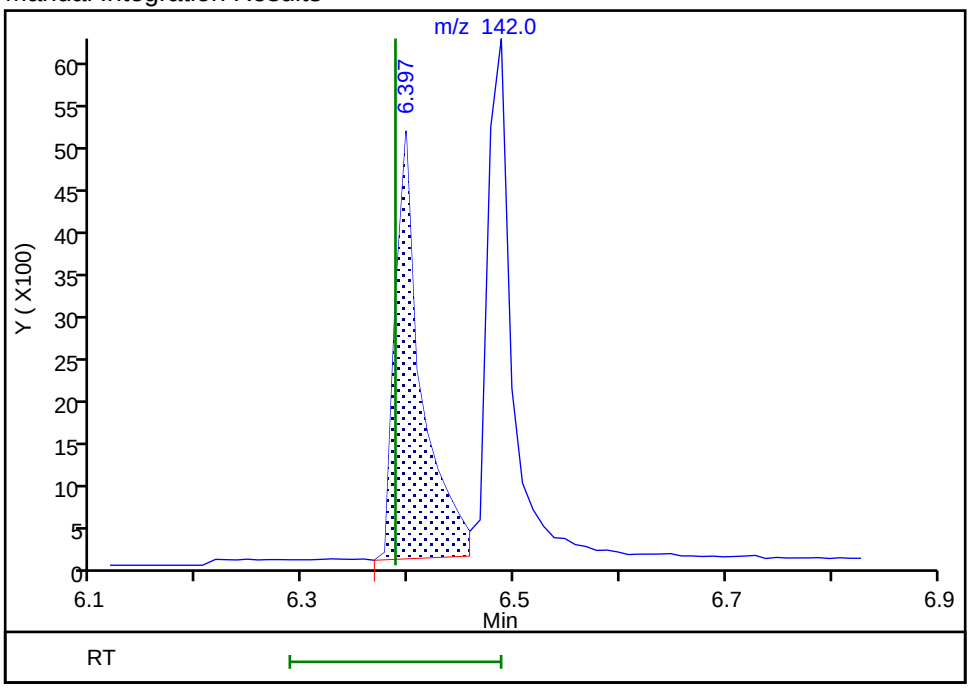
Processing Integration Results

RT: 6.40
Area: 18243
Amount: 0.086218
Amount Units: ug/ml



Manual Integration Results

RT: 6.40
Area: 8694
Amount: 0.050226
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:21:57
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

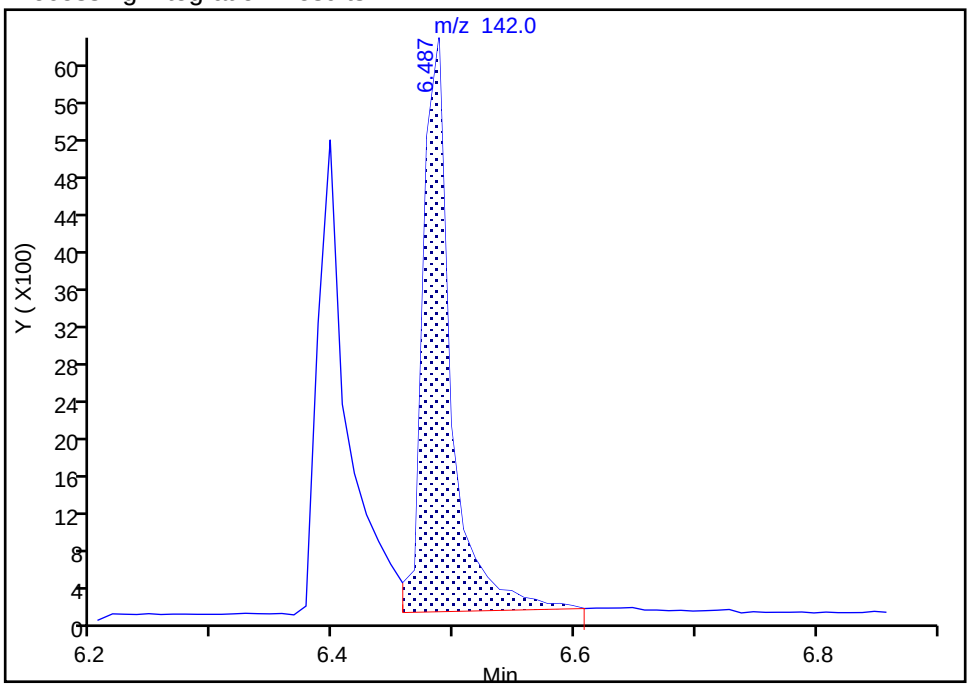
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0405.D				
Injection Date:	24-Feb-2022 18:48:30	Instrument ID:	HP23263		
Lims ID:	IC L2				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

10 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

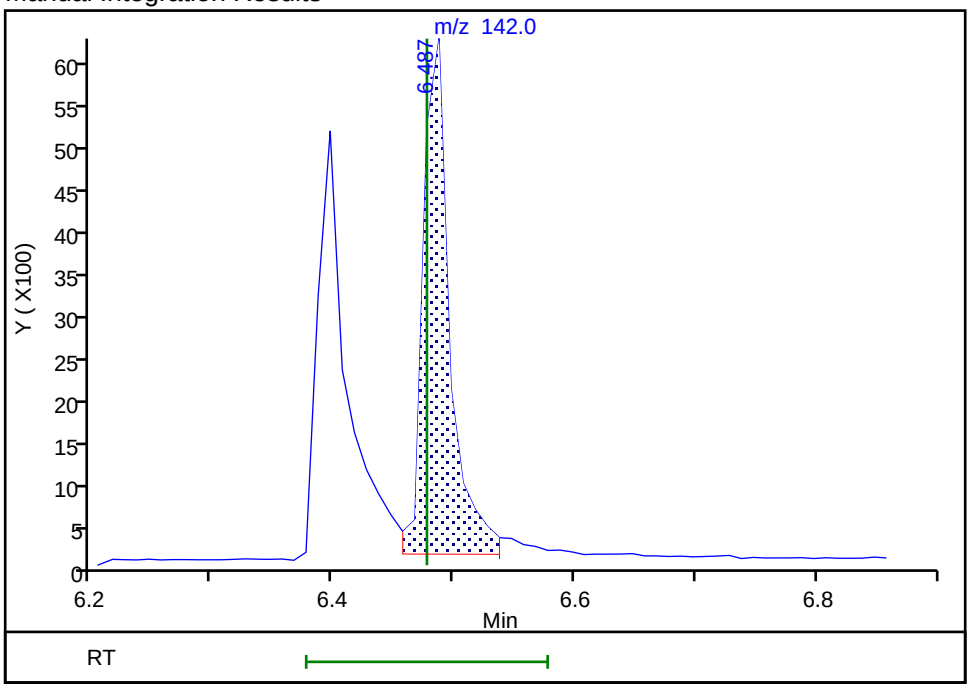
Processing Integration Results

RT: 6.49
Area: 9920
Amount: 0.054844
Amount Units: ug/ml



Manual Integration Results

RT: 6.49
Area: 9321
Amount: 0.050782
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:45:27

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

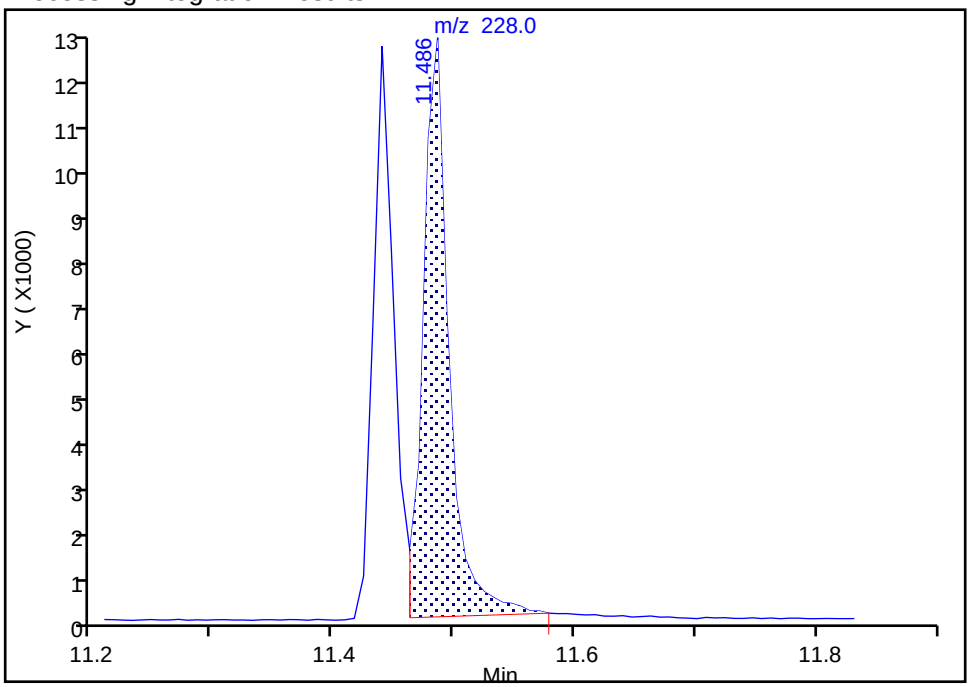
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0405.D				
Injection Date:	24-Feb-2022 18:48:30	Instrument ID:	HP23263		
Lims ID:	IC L2				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

30 Chrysene, CAS: 218-01-9

Signal: 1

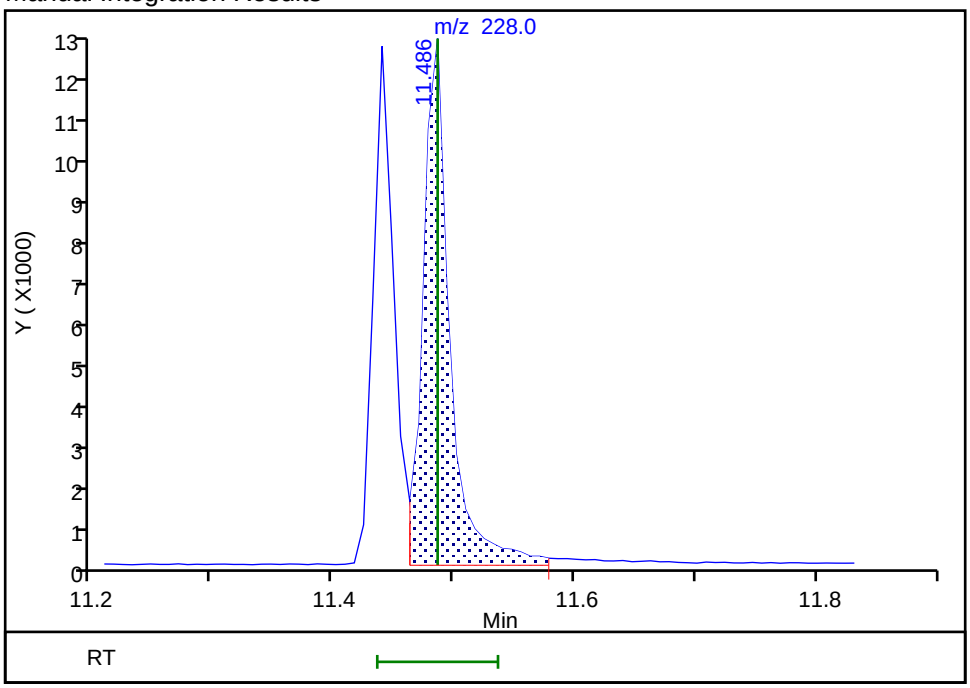
Processing Integration Results

RT: 11.49
Area: 18179
Amount: 0.047218
Amount Units: ug/ml



Manual Integration Results

RT: 11.49
Area: 18990
Amount: 0.049692
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:02:59

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Feb-2022 19:10:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC L1
Misc. Info.: 410-0051112-007
Operator ID: kel10217 Instrument ID: HP23263
Sublist: chrom-8270_SIM_HP23263*sub3

Method: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\8270_SIM_HP23263.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 24-Feb-2022 20:11:42 Calib Date: 24-Feb-2022 19:10:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D

Column 1 : DB-5MS 20m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1641

First Level Reviewer: luttek Date: 24-Feb-2022 20:11:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
2 N-Nitrosodimethylamine	74	2.095	2.095	0.000	68	343	0.0100	0.0111	Ma
3 Bis(2-chloroethyl)ether	93	4.417	4.417	0.000	95	362	0.0100	0.007026	Ma
* 4 1,4-Dichlorobenzene-d4	152	4.530	4.530	0.000	98	18589	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	63493	0.2500	0.2500	
6 Naphthalene	128	5.742	5.742	0.000	33	2864	0.0100	0.0120	
7 Quinoline	129	6.192	6.192	0.000	84	1018	0.0100	0.008716	Ma
8 2-Methylnaphthalene	142	6.425	6.425	0.000	91	1506	0.0100	0.0099	M
$ 9 1-Methylnaphthalene-d10	152	6.465	6.465	0.000	99	1549	0.0100	0.0123	
10 1-Methylnaphthalene	142	6.495	6.495	0.000	98	2475	0.0100	0.0099	Ma
11 Dimethyl phthalate	163	7.126	7.126	0.000	99	55733	0.2500	0.2794	
12 Acenaphthylene	152	7.246	7.246	0.000	68	3442	0.0100	0.0119	
* 13 Acenaphthene-d10	164	7.376	7.376	0.000	98	37275	0.2500	0.2500	
14 Acenaphthene	154	7.406	7.406	0.000	69	1970	0.0100	0.0114	
15 Dibenzofuran	168	7.597	7.597	0.000	76	2470	0.0100	0.009716	
16 Diethyl phthalate	149	7.792	7.792	0.000	98	52845	0.2500	0.2732	
17 Fluorene	166	7.908	7.908	0.000	99	2202	0.0100	0.0110	
18 N-Nitrosodiphenylamine	169	8.054	8.054	0.000	95	1801	0.0100	0.0112	M
19 Hexachlorobenzene	284	8.410	8.410	0.000	92	1272	0.0100	0.0131	
* 20 Phenanthrene-d10	188	8.788	8.788	0.000	100	61681	0.2500	0.2500	
21 Phenanthrene	178	8.811	8.811	0.000	69	3152	0.0100	0.0118	
22 Anthracene	178	8.865	8.865	0.000	98	3271	0.0100	0.0122	
23 Di-n-butyl phthalate	149	9.351	9.351	0.000	100	80802	0.2500	0.2971	
$ 24 Fluoranthene-d10 (Surr)	212	9.927	9.927	0.000	96	3868	0.0100	0.0155	
25 Fluoranthene	202	9.946	9.946	0.000	95	4112	0.0100	0.0130	
26 Pyrene	202	10.159	10.159	0.000	95	4484	0.0100	0.0131	
27 Butyl benzyl phthalate	149	10.826	10.826	0.000	100	32913	0.2500	0.2681	
28 Benzo[a]anthracene	228	11.439	11.439	0.000	76	3333	0.0100	0.0118	M
* 29 Chrysene-d12	240	11.454	11.454	0.000	83	57859	0.2500	0.2500	
30 Chrysene	228	11.485	11.485	0.000	100	4740	0.0100	0.0100	M
31 Bis(2-ethylhexyl) phthalate	149	11.508	11.508	0.000	100	43952	0.2500	0.2726	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 Di-n-octyl phthalate	149	12.390	12.390	0.000	100	72543	0.2500	0.2645	
33 Benzo[b]fluoranthene	252	12.873	12.873	0.000	100	4134	0.0100	0.0121	M
34 Benzo[k]fluoranthene	252	12.912	12.912	0.000	100	4887	0.0100	0.0134	
35 Benzo[e]pyrene	252	13.257	13.257	0.000	99	3946	0.0100	0.0119	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.303	13.303	0.000	95	3580	0.0100	0.0136	
37 Benzo[a]pyrene	252	13.334	13.334	0.000	100	3772	0.0100	0.0119	
* 38 Perylene-d12	264	13.418	13.418	0.000	93	68952	0.2500	0.2500	
39 Perylene	252	13.456	13.456	0.000	99	3996	0.0100	0.0124	
40 Indeno[1,2,3-cd]pyrene	276	15.068	15.068	0.000	93	3619	0.0100	0.0115	M
41 Dibenz(a,h)anthracene	278	15.124	15.124	0.000	94	4260	0.0100	0.0119	
42 Benzo[g,h,i]perylene	276	15.520	15.520	0.000	93	5100	0.0100	0.0129	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

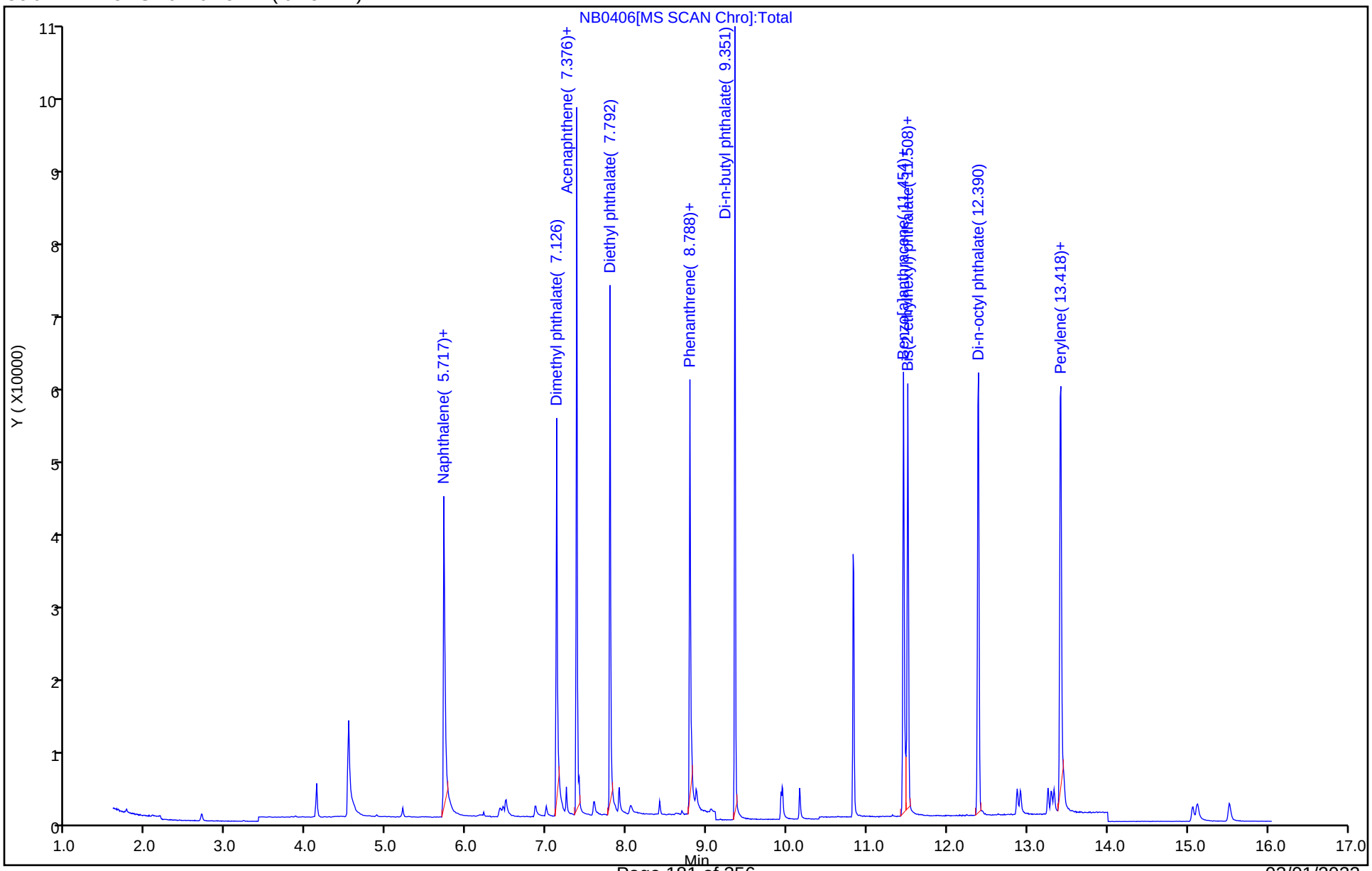
MSS_RVSIM_1_00014 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2022 20:11:43 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	IC L1			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

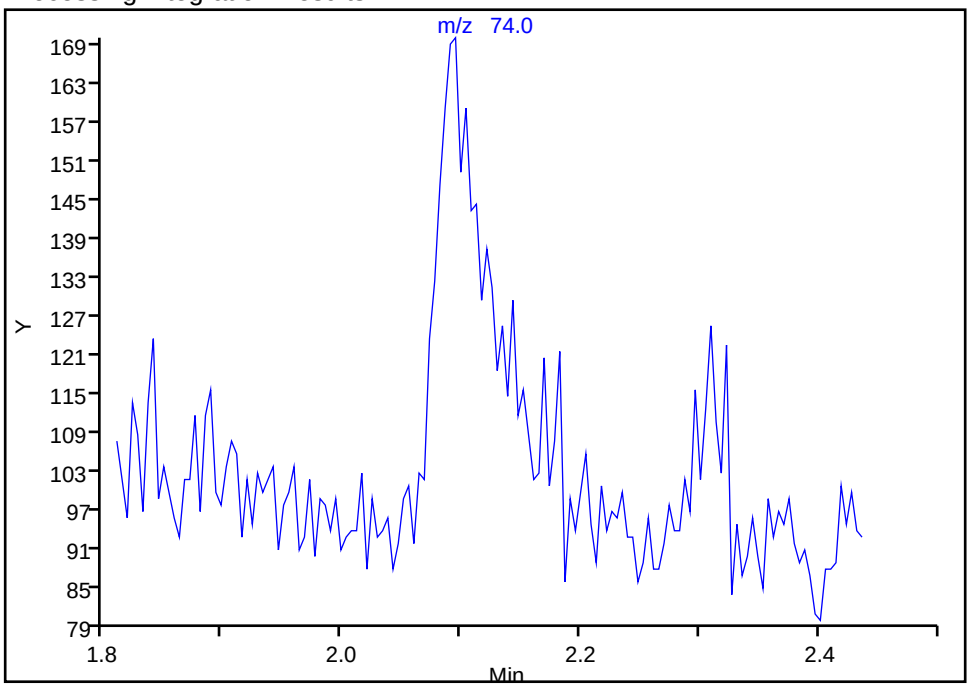
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263		
Lims ID:	IC L1				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

2 N-Nitrosodimethylamine, CAS: 62-75-9

Signal: 1

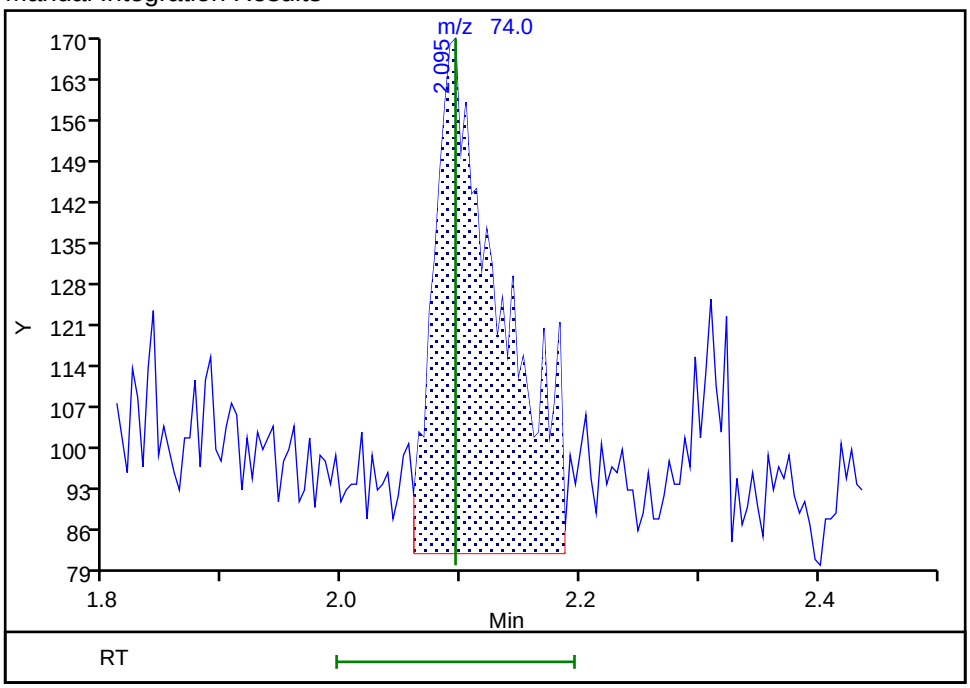
Not Detected
Expected RT: 2.10

Processing Integration Results



Manual Integration Results

RT: 2.10
Area: 343
Amount: 0.011093
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:07:23
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

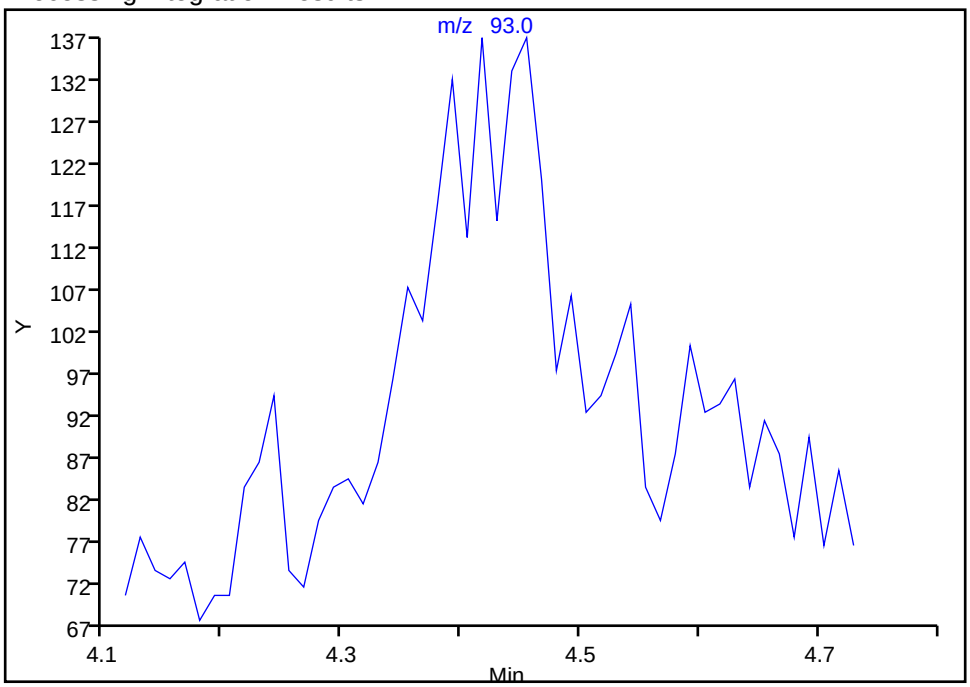
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263		
Lims ID:	IC L1				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

3 Bis(2-chloroethyl)ether, CAS: 111-44-4

Signal: 1

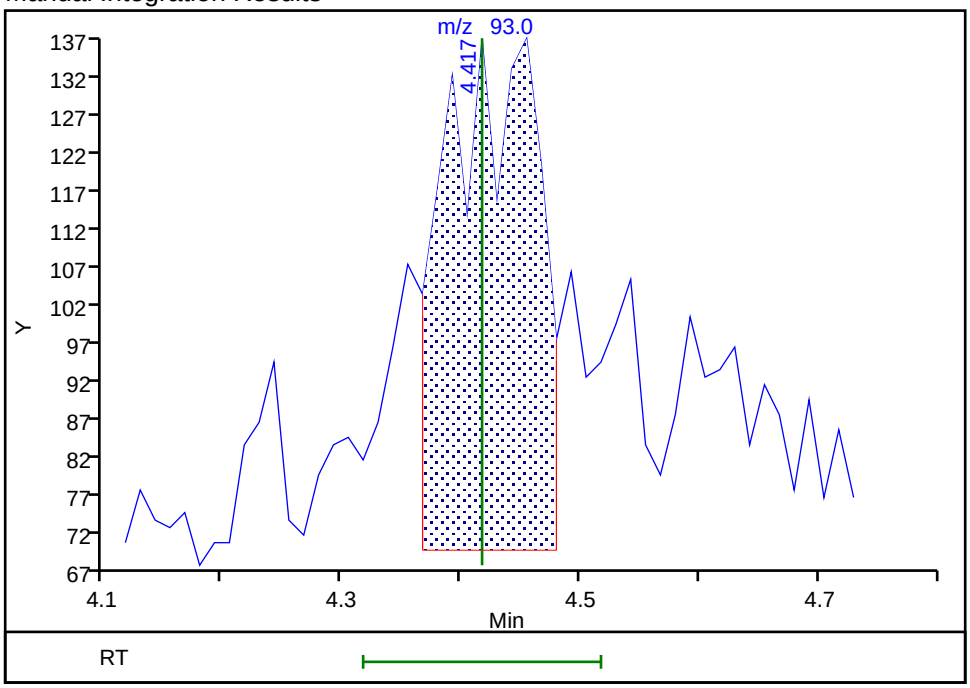
Processing Integration Results

Not Detected
Expected RT: 4.42



Manual Integration Results

RT: 4.42
Area: 362
Amount: 0.007026
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:07:45
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

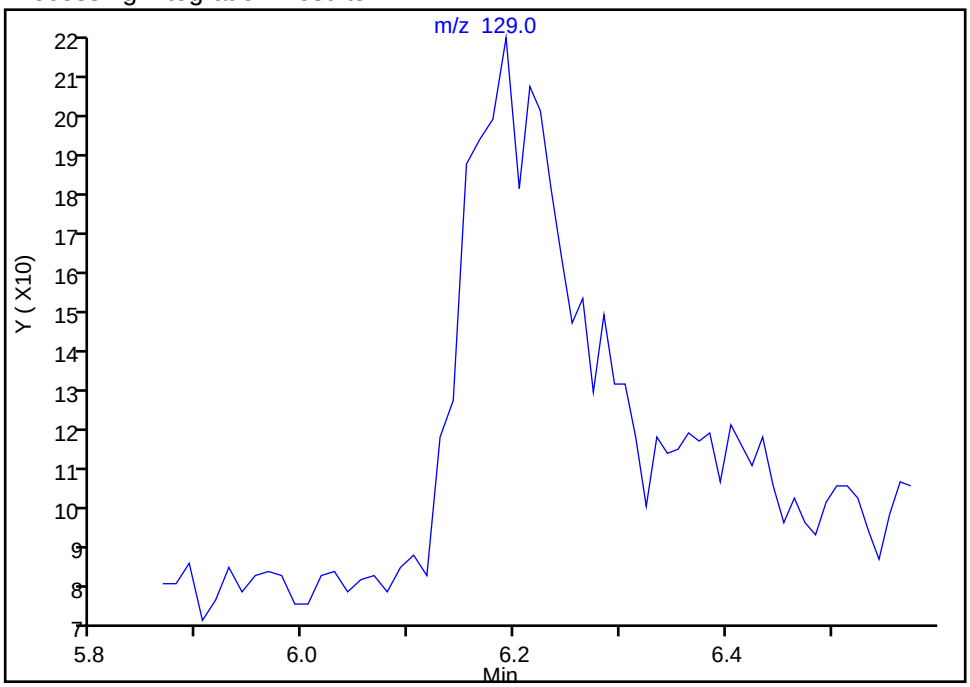
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263		
Lims ID:	IC L1				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

7 Quinoline, CAS: 91-22-5

Signal: 1

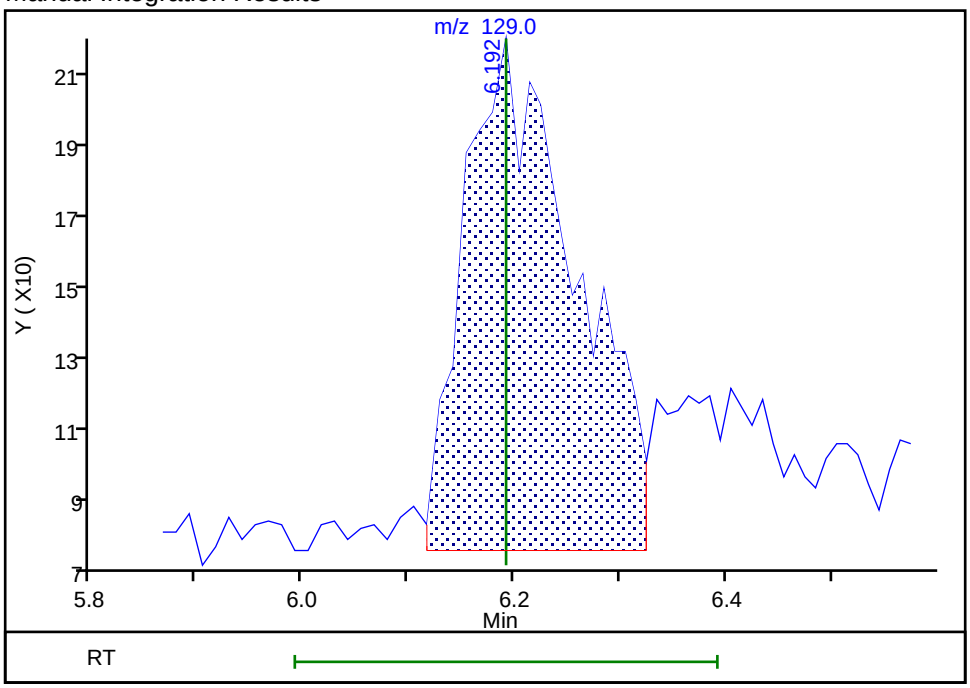
Processing Integration Results

Not Detected
Expected RT: 6.19



Manual Integration Results

RT: 6.19
Area: 1018
Amount: 0.008716
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:39:26
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

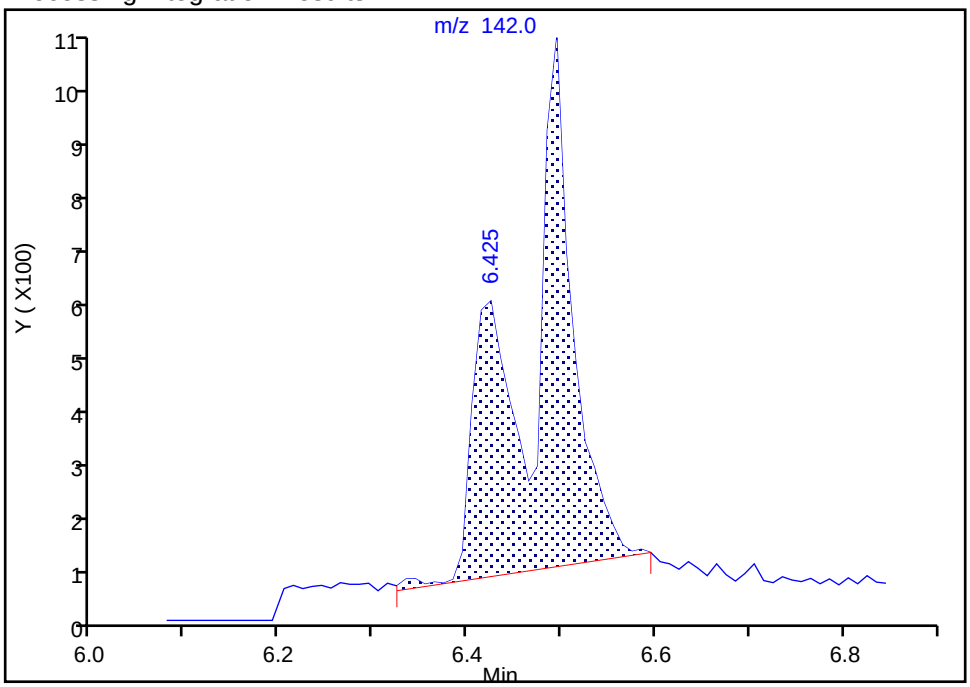
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263		
Lims ID:	IC L1				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

8 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

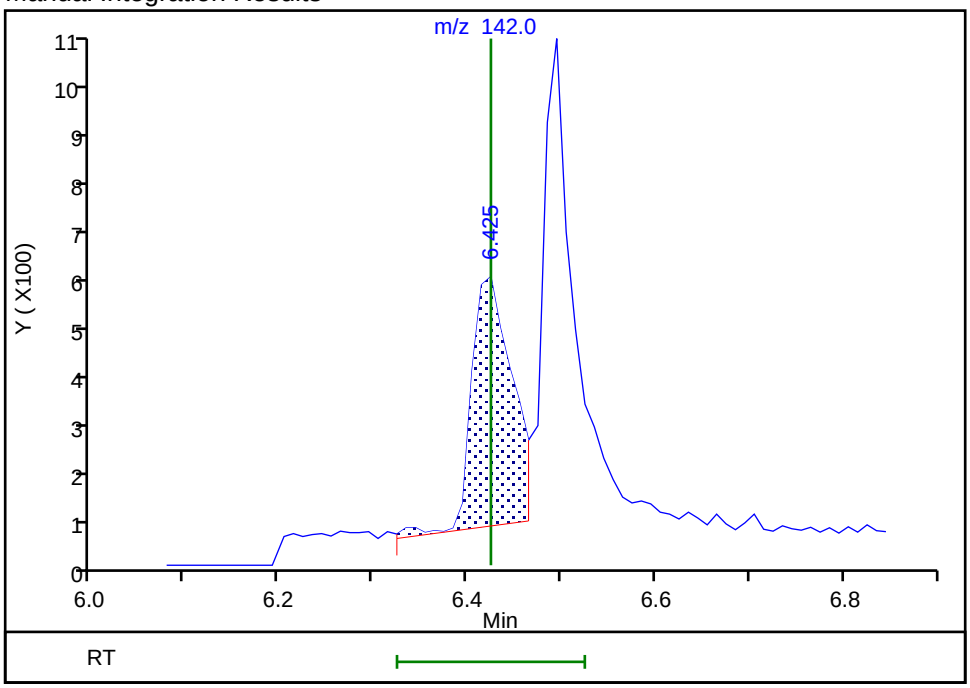
Processing Integration Results

RT: 6.42
Area: 3686
Amount: 0.012693
Amount Units: ug/ml



Manual Integration Results

RT: 6.42
Area: 1506
Amount: 0.009914
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:39:37

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

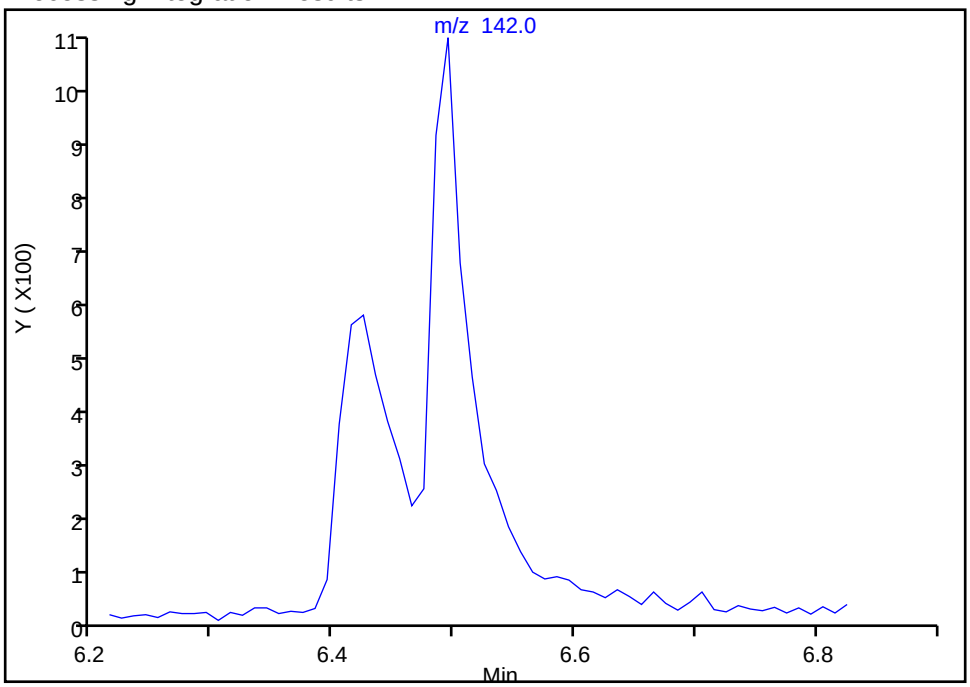
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263		
Lims ID:	IC L1				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

10 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

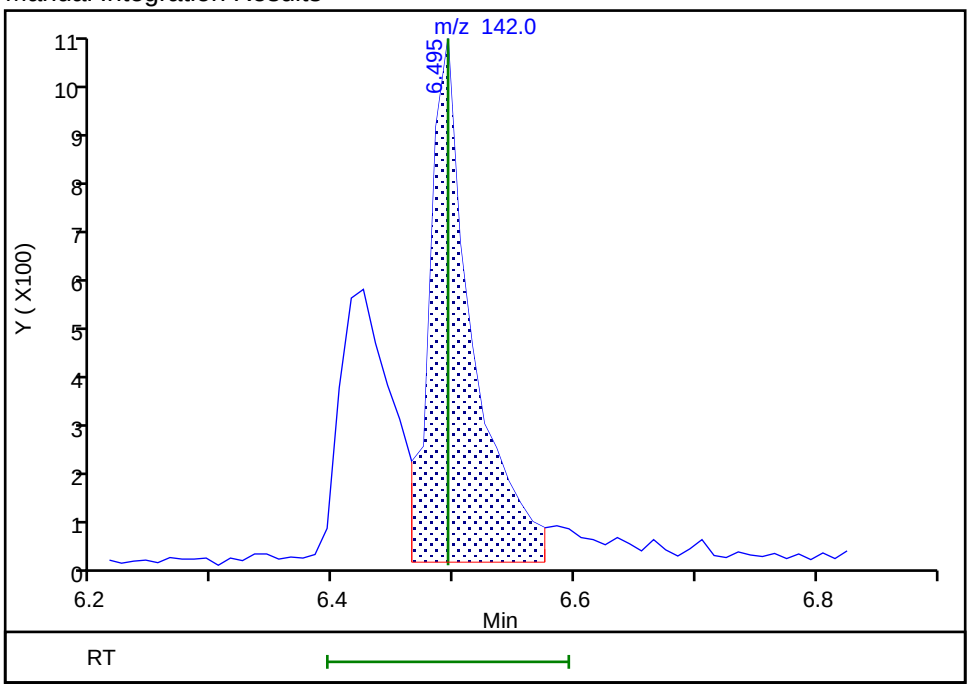
Not Detected
Expected RT: 6.49

Processing Integration Results



RT: 6.49
Area: 2475
Amount: 0.009904
Amount Units: ug/ml

Manual Integration Results



Reviewer: luttek, 24-Feb-2022 19:44:56
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

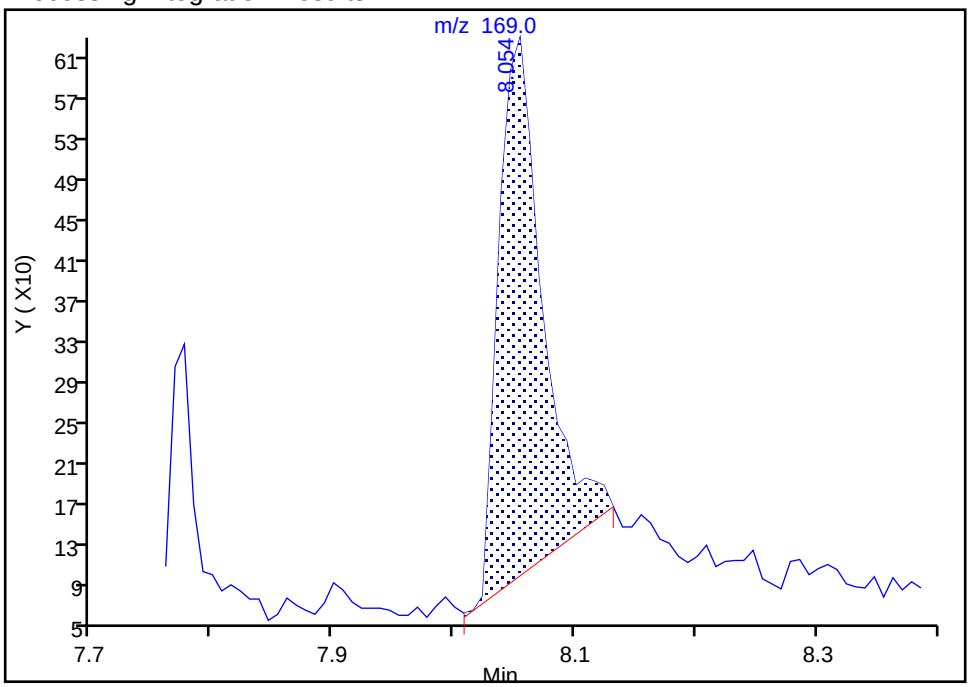
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263		
Lims ID:	IC L1				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

18 N-Nitrosodiphenylamine, CAS: 86-30-6

Signal: 1

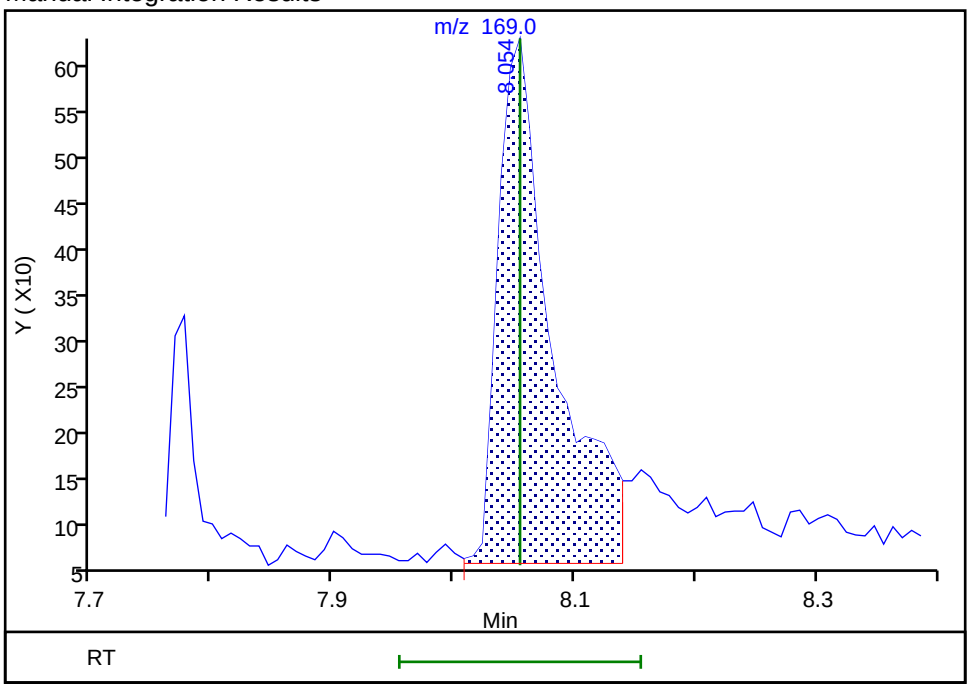
Processing Integration Results

RT: 8.05
Area: 1343
Amount: 0.012561
Amount Units: ug/ml



Manual Integration Results

RT: 8.05
Area: 1801
Amount: 0.011150
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:40:01

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

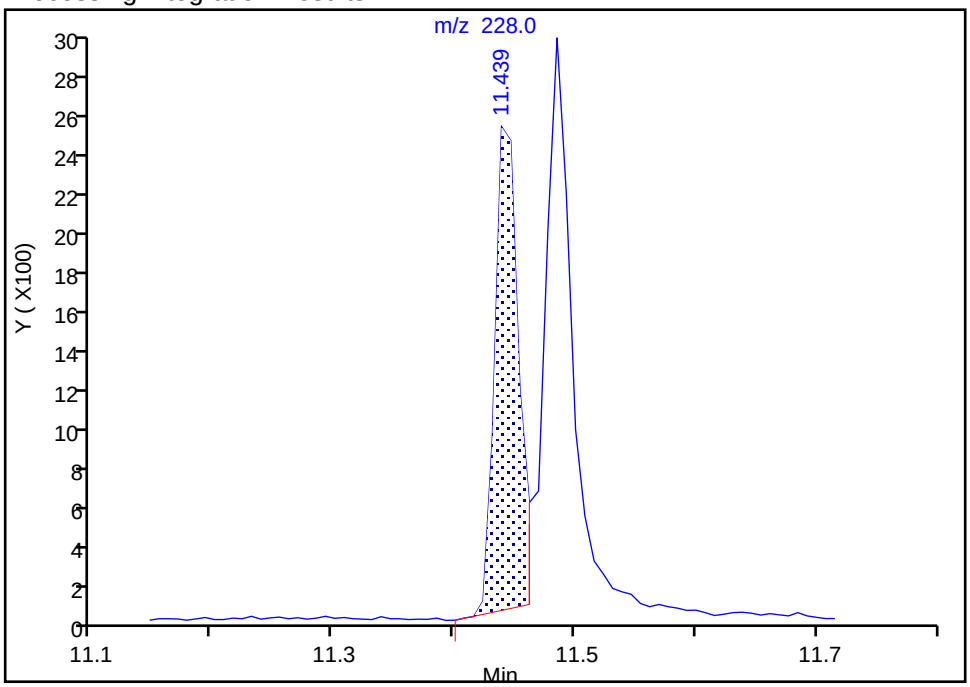
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263		
Lims ID:	IC L1				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

28 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

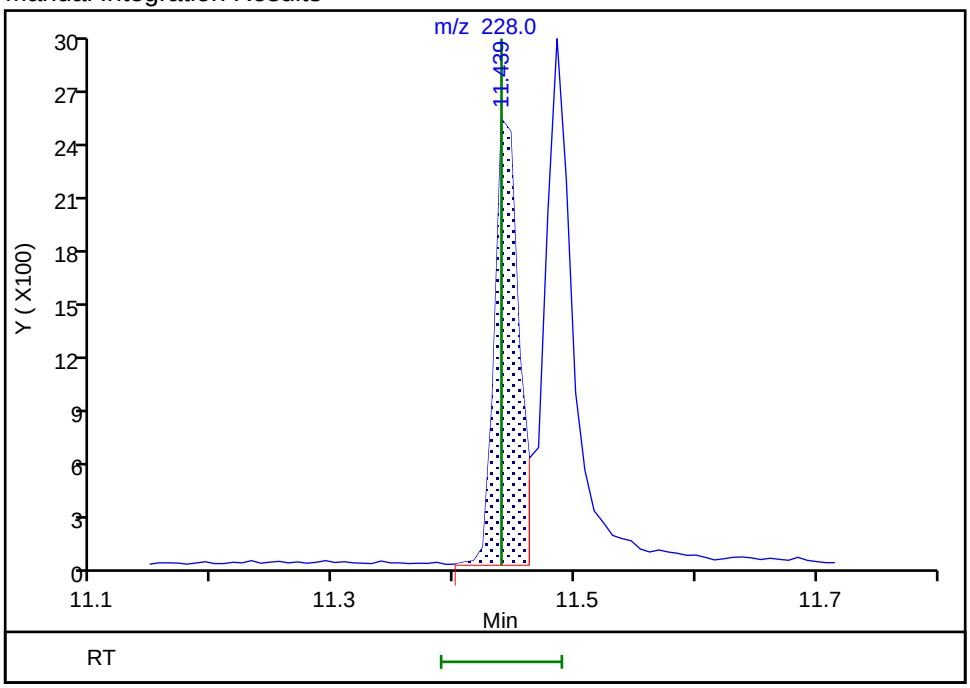
Processing Integration Results

RT: 11.44
Area: 3171
Amount: 0.011348
Amount Units: ug/ml



Manual Integration Results

RT: 11.44
Area: 3333
Amount: 0.011813
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:40:13

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

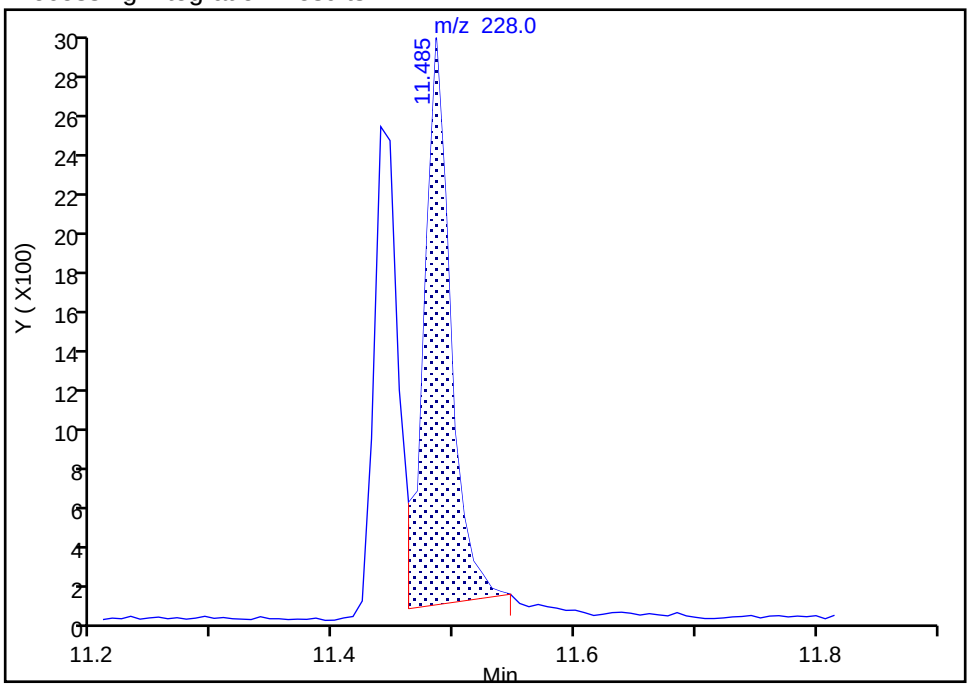
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263		
Lims ID:	IC L1				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

30 Chrysene, CAS: 218-01-9

Signal: 1

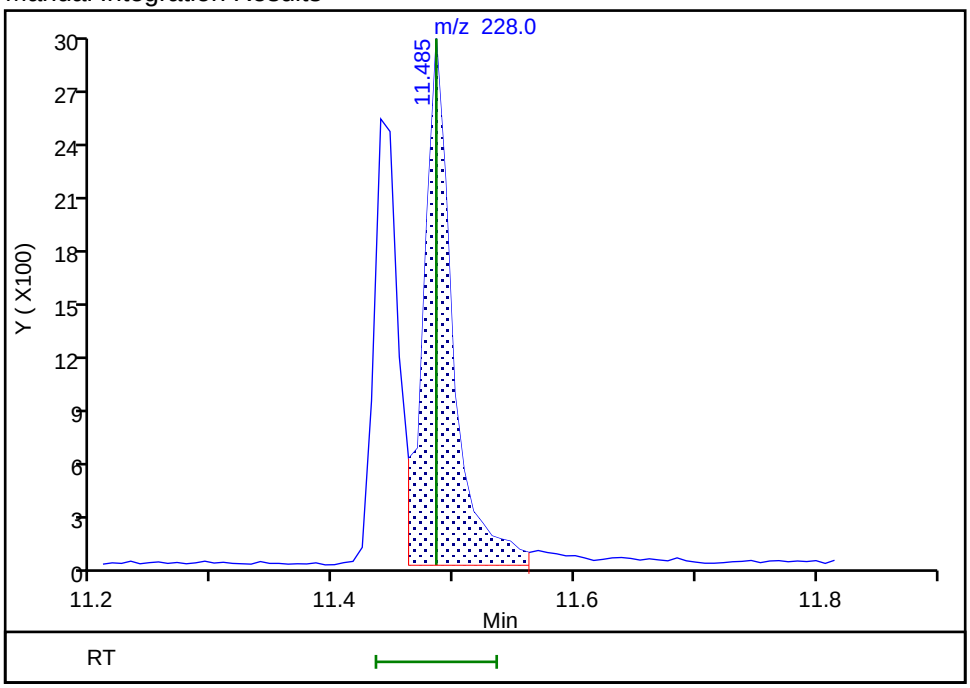
Processing Integration Results

RT: 11.49
Area: 4177
Amount: 0.010013
Amount Units: ug/ml



Manual Integration Results

RT: 11.49
Area: 4740
Amount: 0.010005
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:03:22

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

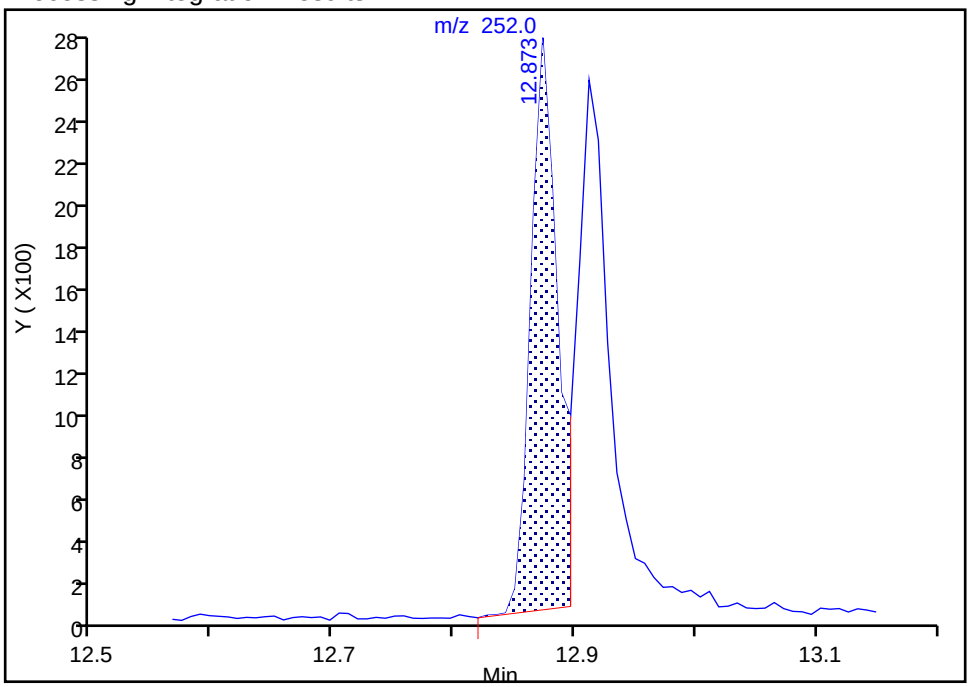
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263		
Lims ID:	IC L1				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

33 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

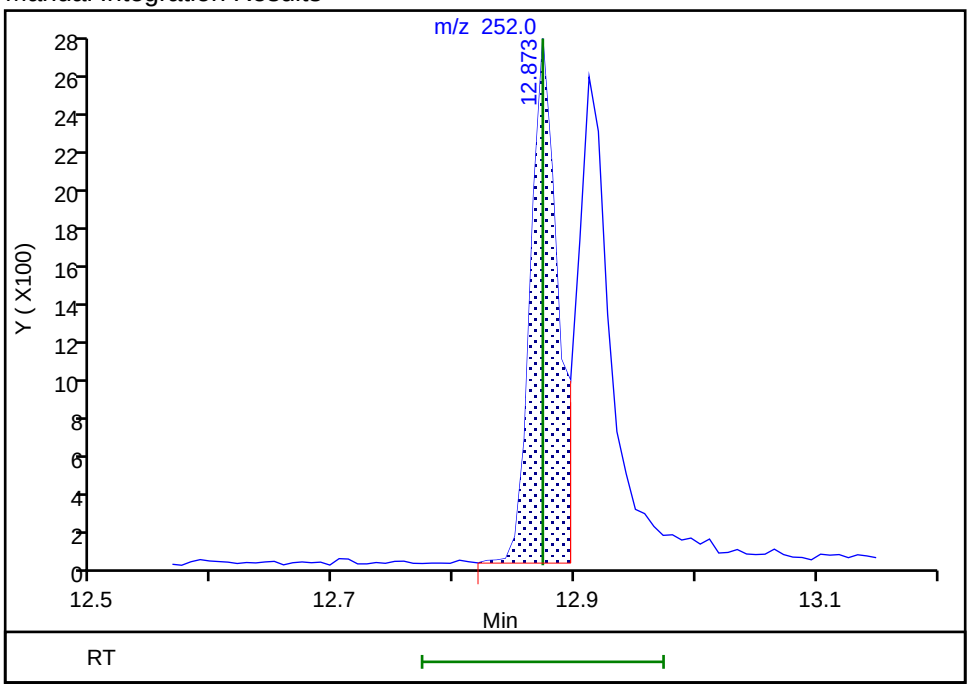
Processing Integration Results

RT: 12.87
Area: 4008
Amount: 0.011820
Amount Units: ug/ml



Manual Integration Results

RT: 12.87
Area: 4134
Amount: 0.012117
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:40:33

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

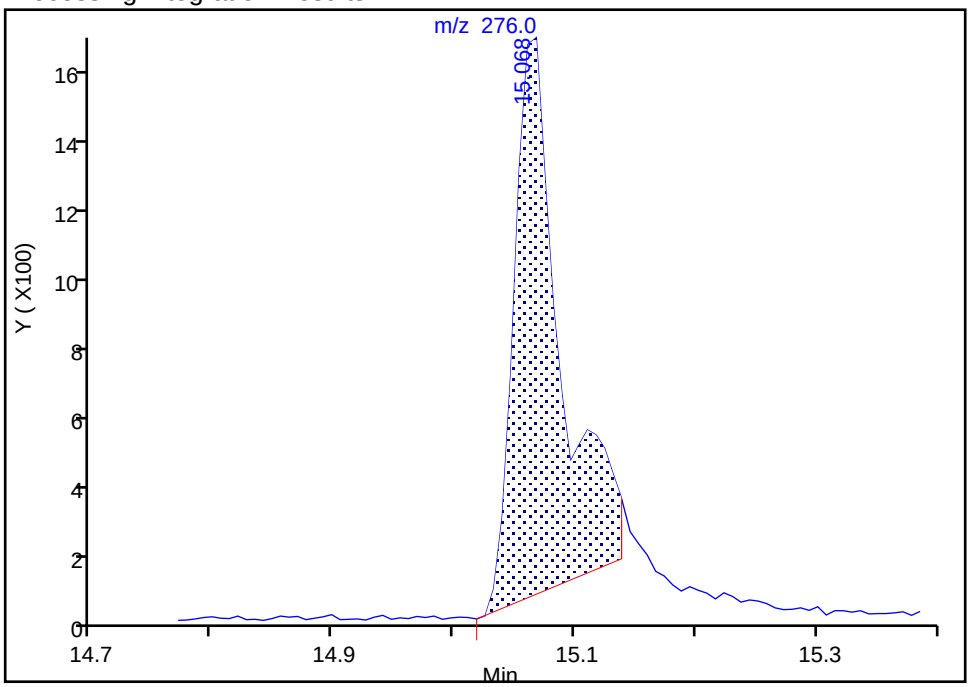
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Injection Date:	24-Feb-2022 19:10:30	Instrument ID:	HP23263		
Lims ID:	IC L1				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

40 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

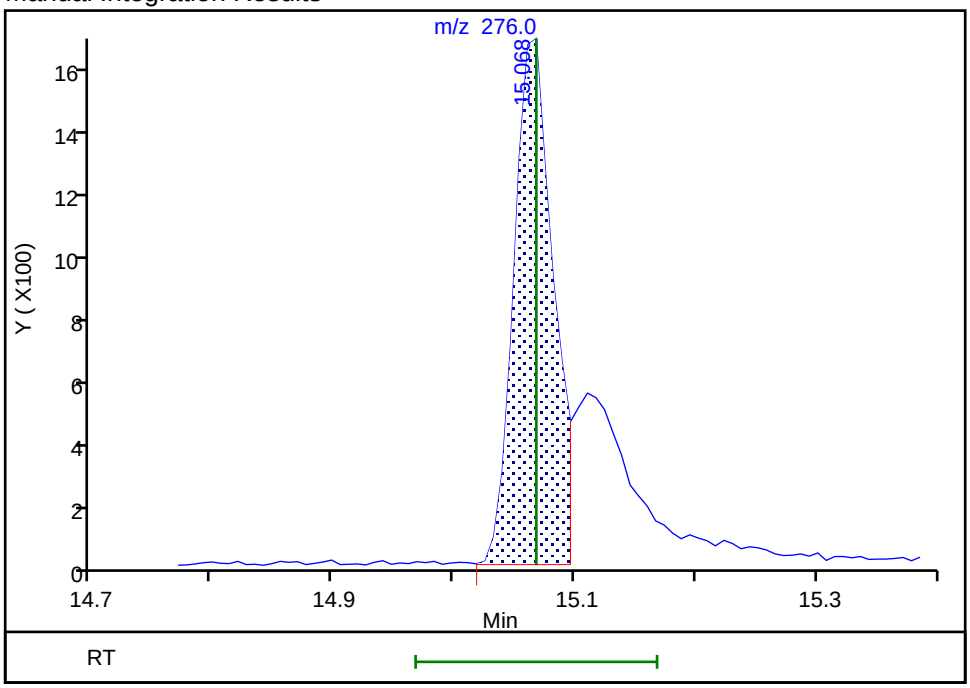
Processing Integration Results

RT: 15.07
Area: 4190
Amount: 0.010123
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 3619
Amount: 0.011525
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 19:40:44

Audit Action: Manually Integrated Audit Reason: Baseline

Calibration / 1,4-Dioxane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

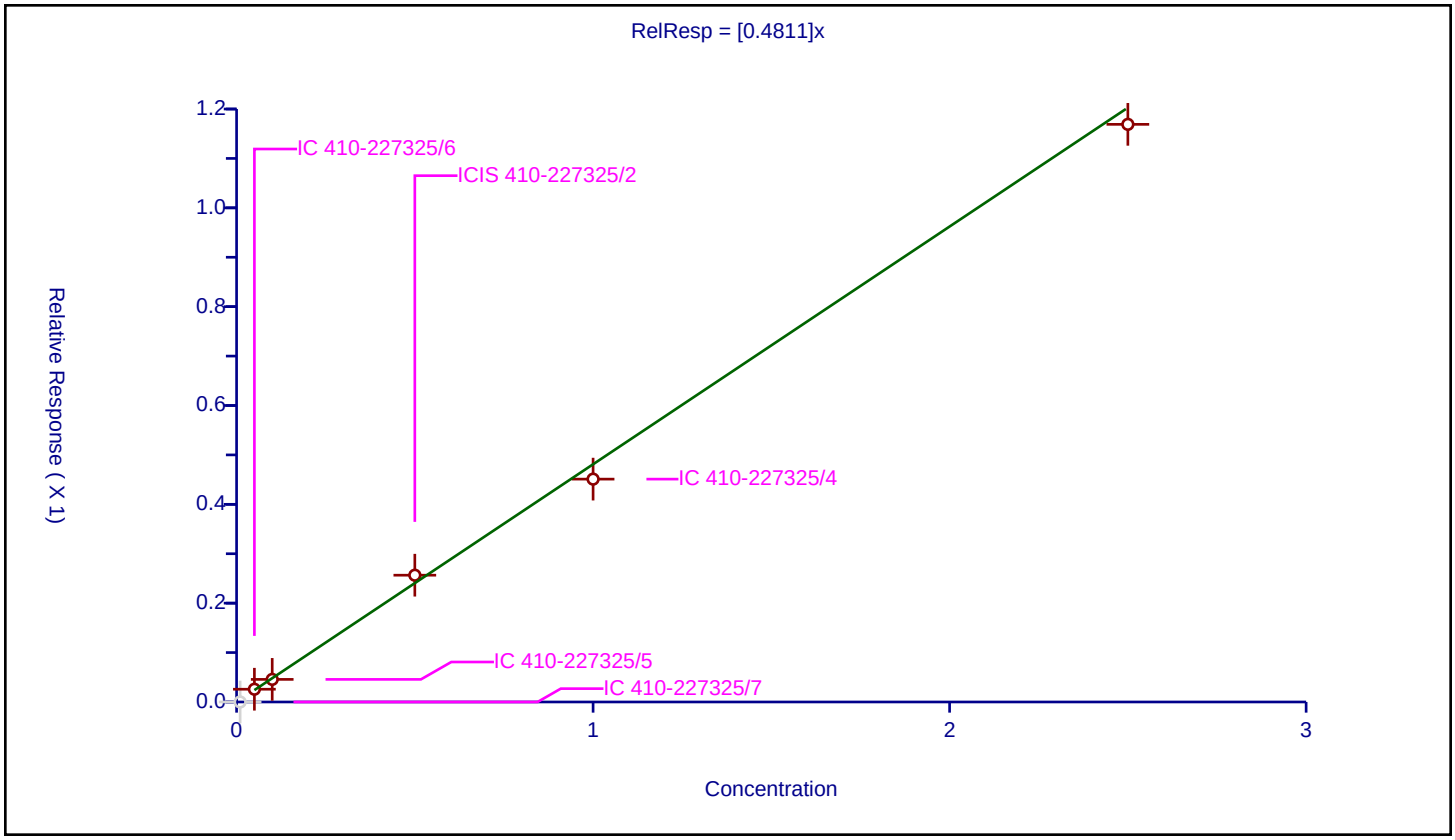
Curve Coefficients

Intercept:	0
Slope:	0.4811

Error Coefficients

Standard Error:	52300
Relative Standard Error:	6.5
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.0	0.25	18589.0	0.0	N
2	IC 410-227325/6	0.05	0.025817	0.25	20287.0	0.516341	Y
3	IC 410-227325/5	0.1	0.04573	0.25	20479.0	0.457298	Y
4	ICIS 410-227325/2	0.5	0.256592	0.25	23399.0	0.513184	Y
5	IC 410-227325/4	1.0	0.451019	0.25	20845.0	0.451019	Y
6	IC 410-227325/3	2.5	1.168954	0.25	20223.0	0.467581	Y



Calibration / N-Nitrosodimethylamine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

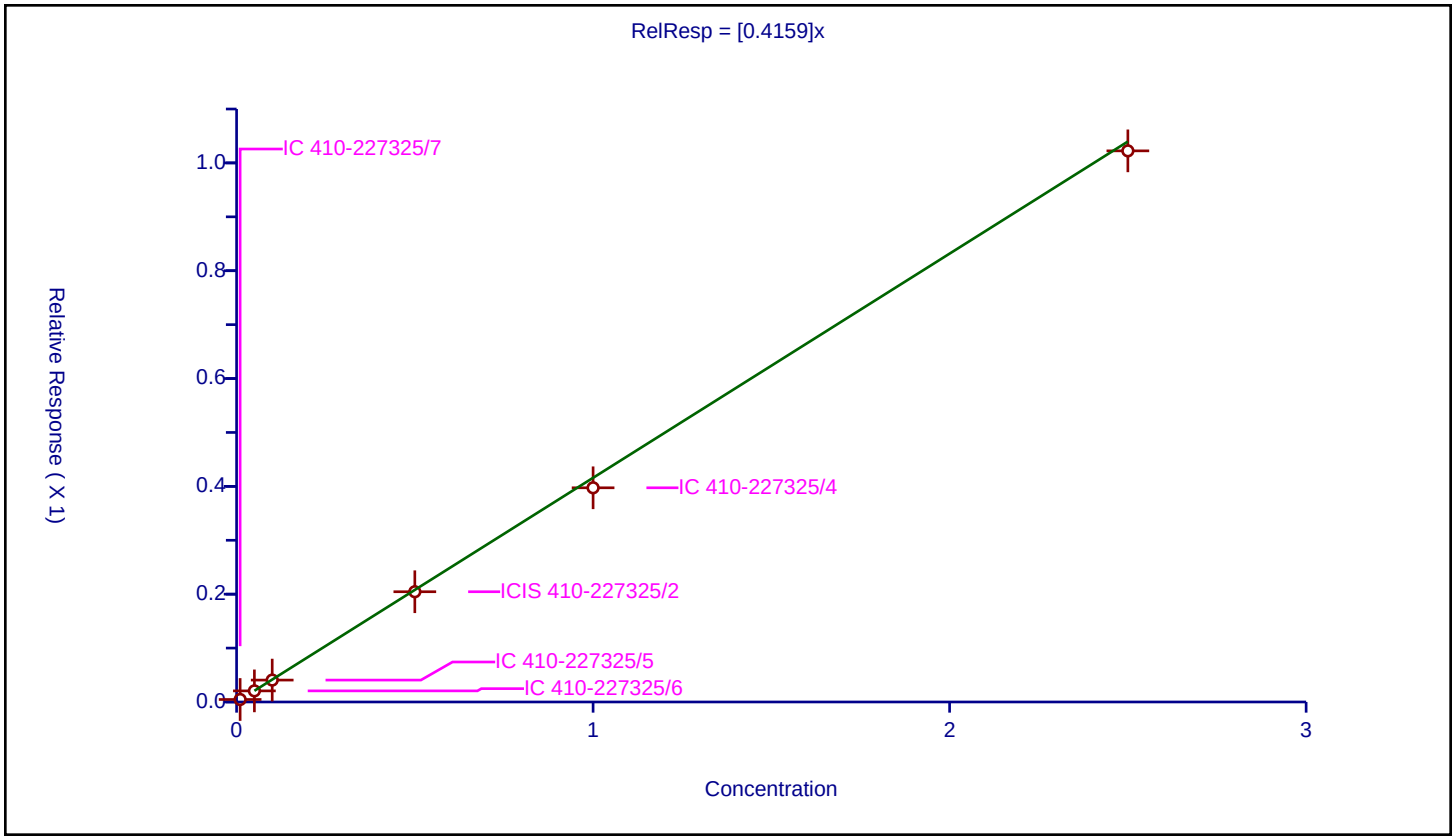
Curve Coefficients

Intercept:	0
Slope:	0.4159

Error Coefficients

Standard Error:	40800
Relative Standard Error:	5.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.004613	0.25	18589.0	0.461294	Y
2	IC 410-227325/6	0.05	0.020617	0.25	20287.0	0.412333	Y
3	IC 410-227325/5	0.1	0.040615	0.25	20479.0	0.406148	Y
4	ICIS 410-227325/2	0.5	0.204528	0.25	23399.0	0.409056	Y
5	IC 410-227325/4	1.0	0.397373	0.25	20845.0	0.397373	Y
6	IC 410-227325/3	2.5	1.0224	0.25	20223.0	0.40896	Y



Calibration / Bis(2-chloroethyl)ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

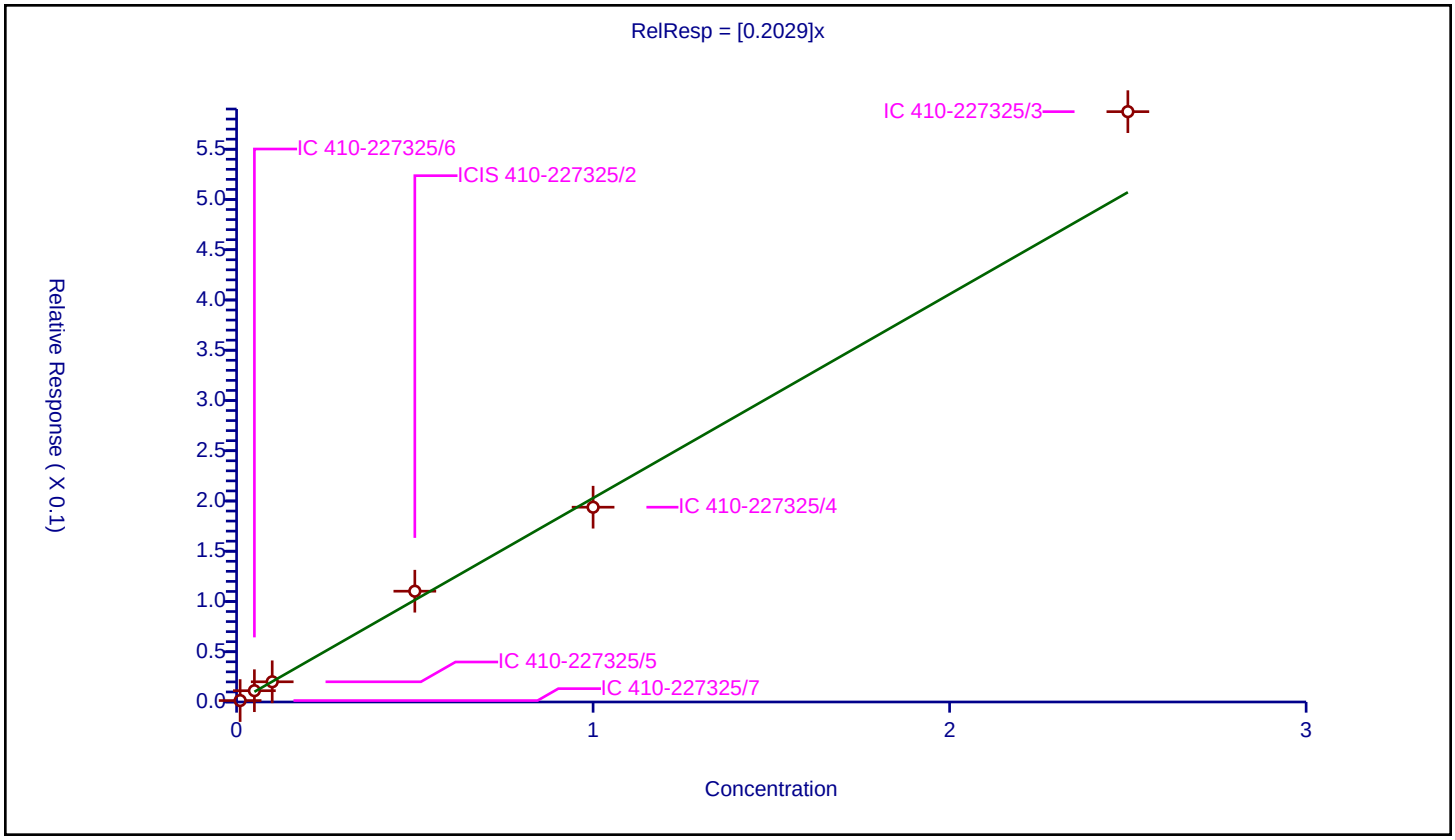
Curve Coefficients

Intercept:	0
Slope:	0.2029

Error Coefficients

Standard Error:	84100
Relative Standard Error:	16.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.001425	0.25	63493.0	0.142535	Y
2	IC 410-227325/6	0.05	0.01123	0.25	72352.0	0.224596	Y
3	IC 410-227325/5	0.1	0.020087	0.25	73157.0	0.200869	Y
4	ICIS 410-227325/2	0.5	0.11024	0.25	85468.0	0.22048	Y
5	IC 410-227325/4	1.0	0.193803	0.25	86482.0	0.193803	Y
6	IC 410-227325/3	2.5	0.587383	0.25	72955.0	0.234953	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

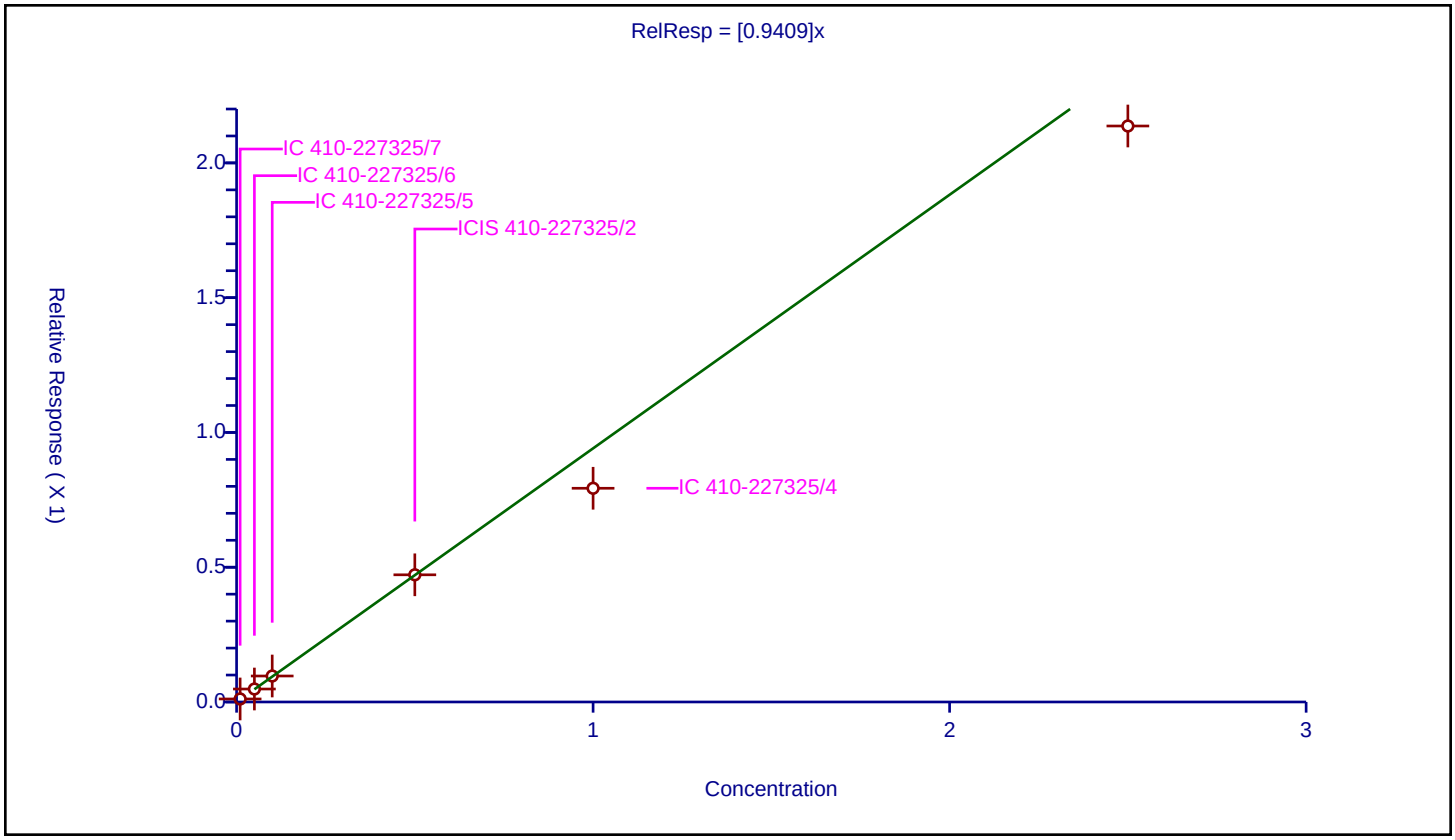
Curve Coefficients

Intercept:	0
Slope:	0.9409

Error Coefficients

Standard Error:	313000
Relative Standard Error:	12.1
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.011277	0.25	63493.0	1.127683	Y
2	IC 410-227325/6	0.05	0.048129	0.25	72352.0	0.962586	Y
3	IC 410-227325/5	0.1	0.096382	0.25	73157.0	0.963818	Y
4	ICIS 410-227325/2	0.5	0.471896	0.25	85468.0	0.943792	Y
5	IC 410-227325/4	1.0	0.792951	0.25	86482.0	0.792951	Y
6	IC 410-227325/3	2.5	2.136975	0.25	72955.0	0.85479	Y



Calibration / Quinoline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

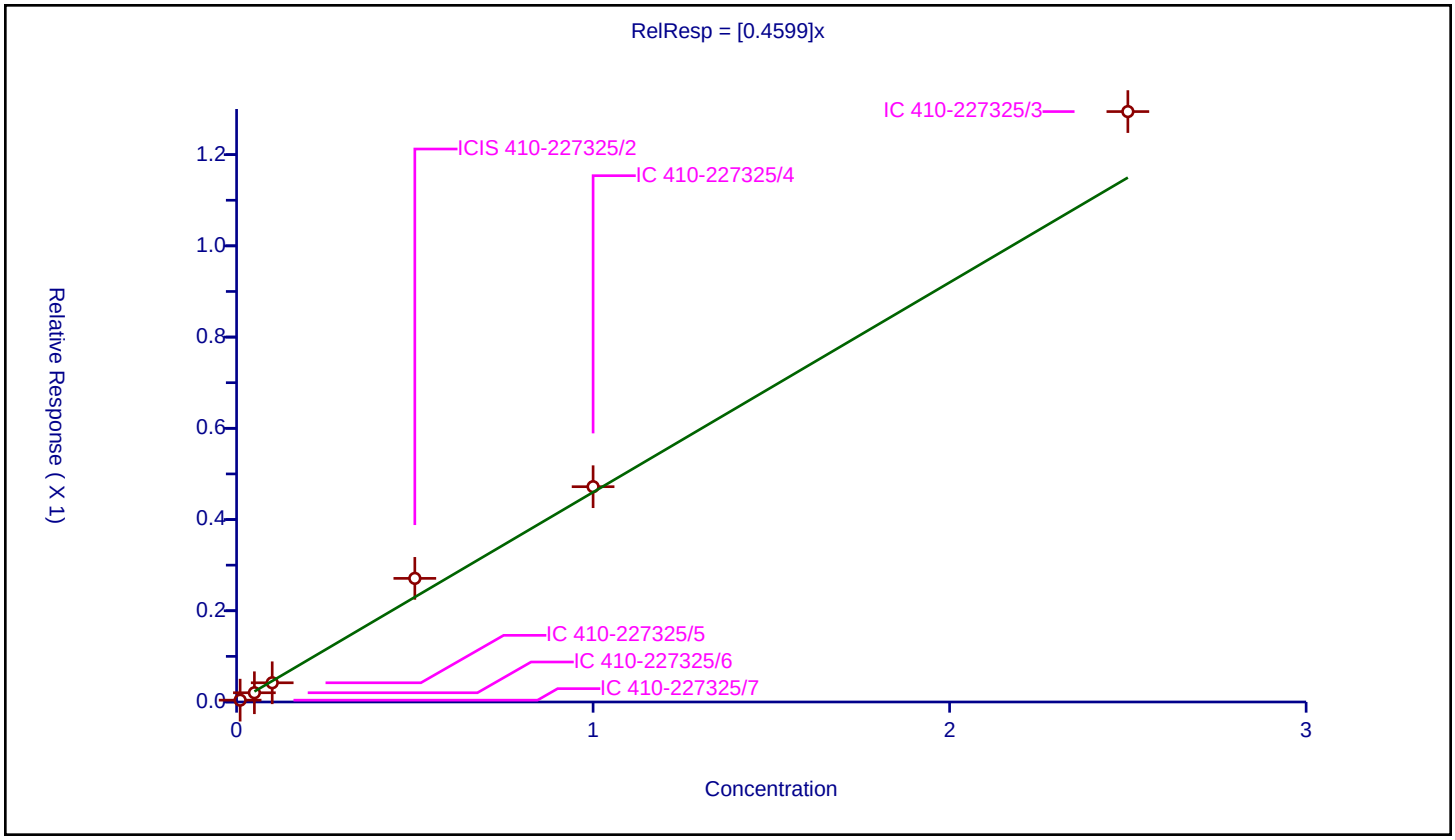
Curve Coefficients

Intercept:	0
Slope:	0.4599

Error Coefficients

Standard Error:	189000
Relative Standard Error:	13.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.004008	0.25	63493.0	0.400832	Y
2	IC 410-227325/6	0.05	0.020279	0.25	72352.0	0.405587	Y
3	IC 410-227325/5	0.1	0.042108	0.25	73157.0	0.421081	Y
4	ICIS 410-227325/2	0.5	0.271028	0.25	85468.0	0.542057	Y
5	IC 410-227325/4	1.0	0.471988	0.25	86482.0	0.471988	Y
6	IC 410-227325/3	2.5	1.294414	0.25	72955.0	0.517766	Y



Calibration / 2-Methylnaphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

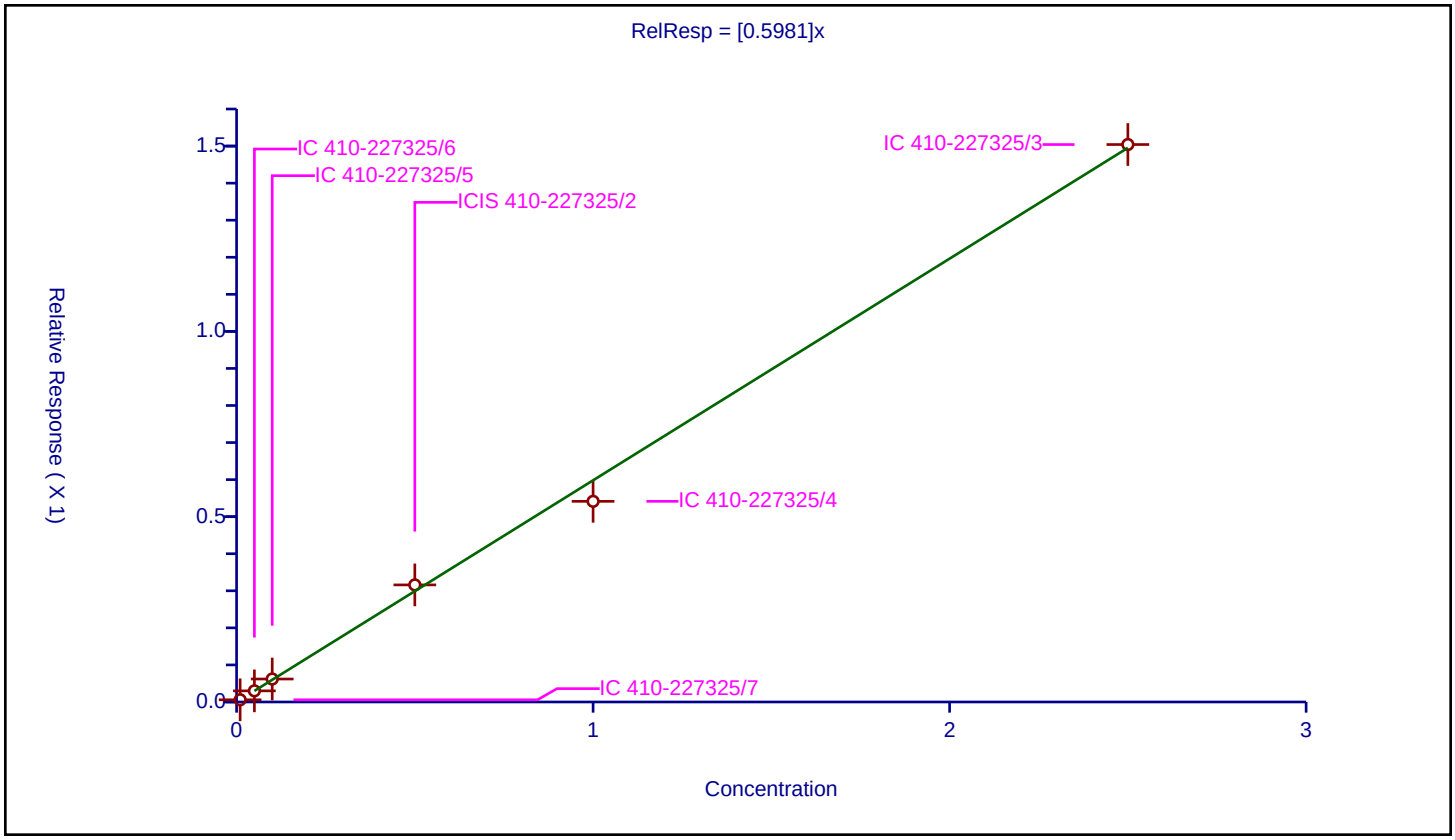
Curve Coefficients

Intercept:	0
Slope:	0.5981

Error Coefficients

Standard Error:	219000
Relative Standard Error:	5.2
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.00593	0.25	63493.0	0.592979	Y
2	IC 410-227325/6	0.05	0.030041	0.25	72352.0	0.600813	Y
3	IC 410-227325/5	0.1	0.061993	0.25	73157.0	0.619934	Y
4	ICIS 410-227325/2	0.5	0.315919	0.25	85468.0	0.631839	Y
5	IC 410-227325/4	1.0	0.541431	0.25	86482.0	0.541431	Y
6	IC 410-227325/3	2.5	1.504181	0.25	72955.0	0.601672	Y



Calibration / 1-Methylnaphthalene-d10

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

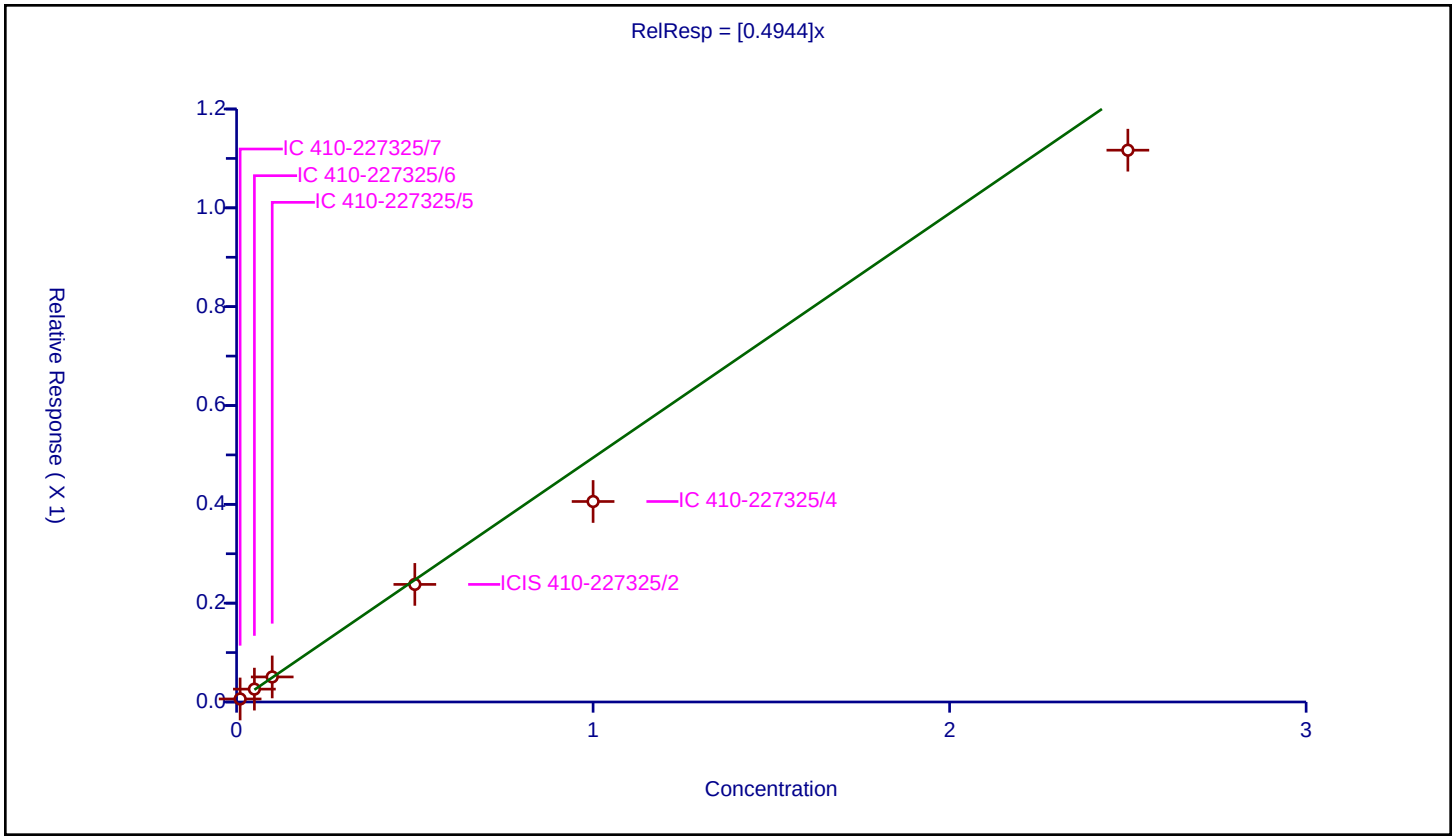
Curve Coefficients

Intercept:	0
Slope:	0.4944

Error Coefficients

Standard Error:	163000
Relative Standard Error:	14.2
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.006099	0.25	63493.0	0.60991	Y
2	IC 410-227325/6	0.05	0.026064	0.25	72352.0	0.521271	Y
3	IC 410-227325/5	0.1	0.050679	0.25	73157.0	0.506787	Y
4	ICIS 410-227325/2	0.5	0.237975	0.25	85468.0	0.47595	Y
5	IC 410-227325/4	1.0	0.405741	0.25	86482.0	0.405741	Y
6	IC 410-227325/3	2.5	1.116661	0.25	72955.0	0.446664	Y



Calibration / 1-Methylnaphthalene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

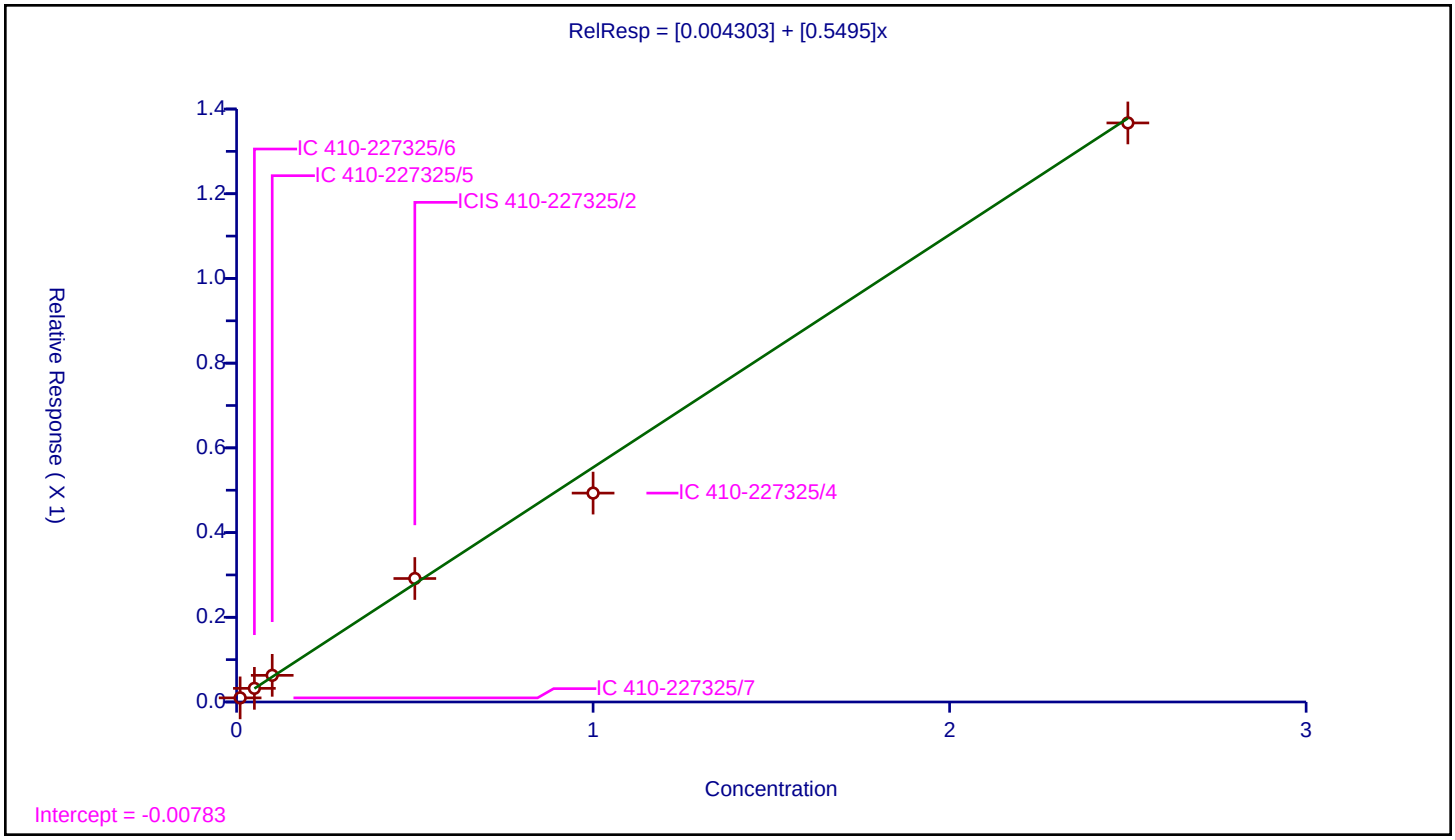
Curve Coefficients

Intercept:	0.004303
Slope:	0.5495

Error Coefficients

Standard Error:	223000
Relative Standard Error:	6.9
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.009745	0.25	63493.0	0.974517	Y
2	IC 410-227325/6	0.05	0.032207	0.25	72352.0	0.644143	Y
3	IC 410-227325/5	0.1	0.062916	0.25	73157.0	0.629161	Y
4	ICIS 410-227325/2	0.5	0.291562	0.25	85468.0	0.583125	Y
5	IC 410-227325/4	1.0	0.493166	0.25	86482.0	0.493166	Y
6	IC 410-227325/3	2.5	1.367161	0.25	72955.0	0.546865	Y



Calibration / Dimethyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

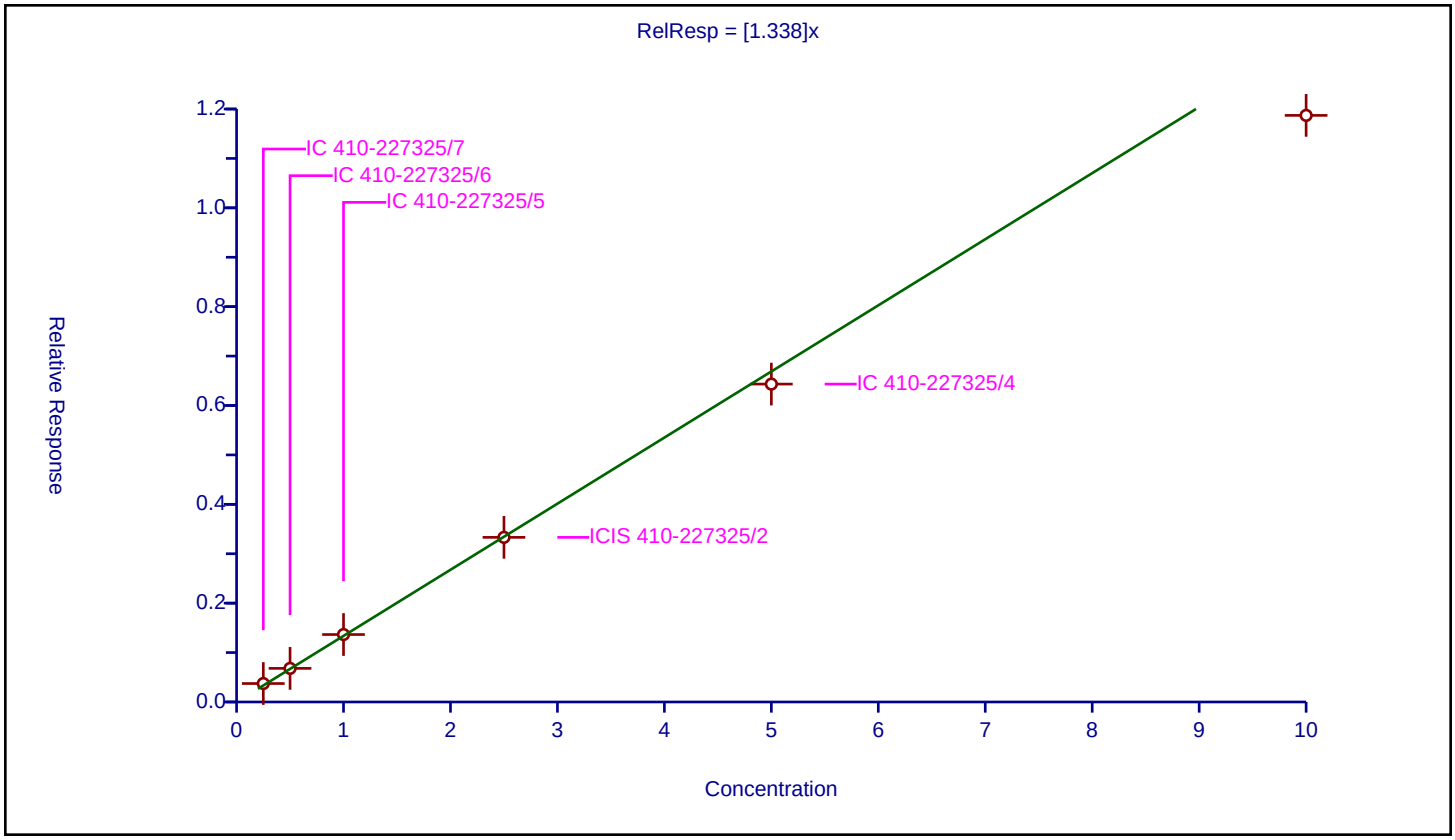
Curve Coefficients

Intercept:	0
Slope:	1.338

Error Coefficients

Standard Error:	916000
Relative Standard Error:	7.6
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.25	0.373796	0.25	37275.0	1.495184	Y
2	IC 410-227325/6	0.5	0.679961	0.25	39396.0	1.359922	Y
3	IC 410-227325/5	1.0	1.365017	0.25	39431.0	1.365017	Y
4	ICIS 410-227325/2	2.5	3.331718	0.25	41331.0	1.332687	Y
5	IC 410-227325/4	5.0	6.433234	0.25	38811.0	1.286647	Y
6	IC 410-227325/3	10.0	11.870932	0.25	35458.0	1.187093	Y



Calibration / Acenaphthylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

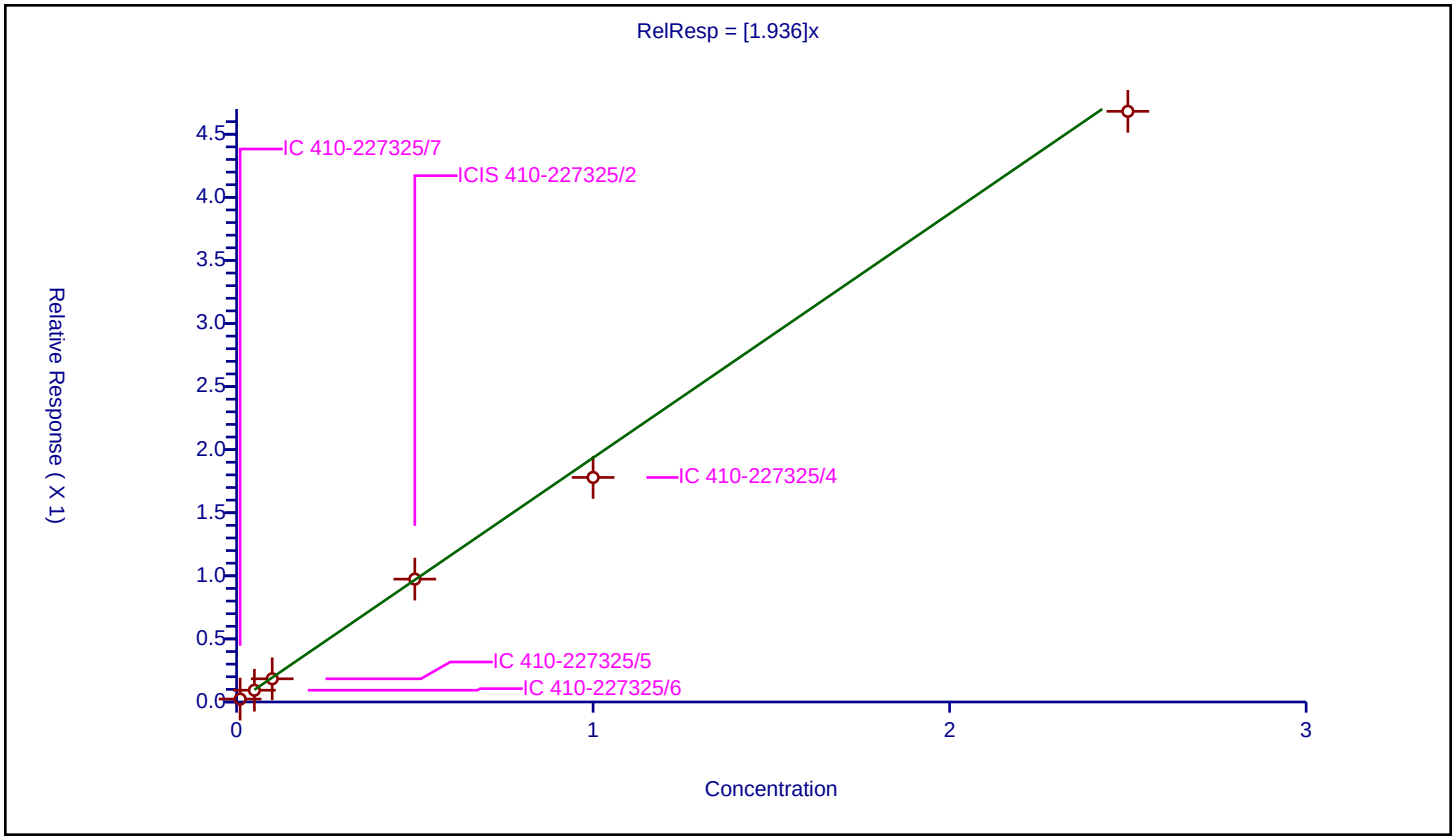
Curve Coefficients

Intercept:	0
Slope:	1.936

Error Coefficients

Standard Error:	330000
Relative Standard Error:	9.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.023085	0.25	37275.0	2.308518	Y
2	IC 410-227325/6	0.05	0.09329	0.25	39396.0	1.865799	Y
3	IC 410-227325/5	0.1	0.183859	0.25	39431.0	1.838591	Y
4	ICIS 410-227325/2	0.5	0.973942	0.25	41331.0	1.947884	Y
5	IC 410-227325/4	1.0	1.779798	0.25	38811.0	1.779798	Y
6	IC 410-227325/3	2.5	4.681588	0.25	35458.0	1.872635	Y



Calibration / Acenaphthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

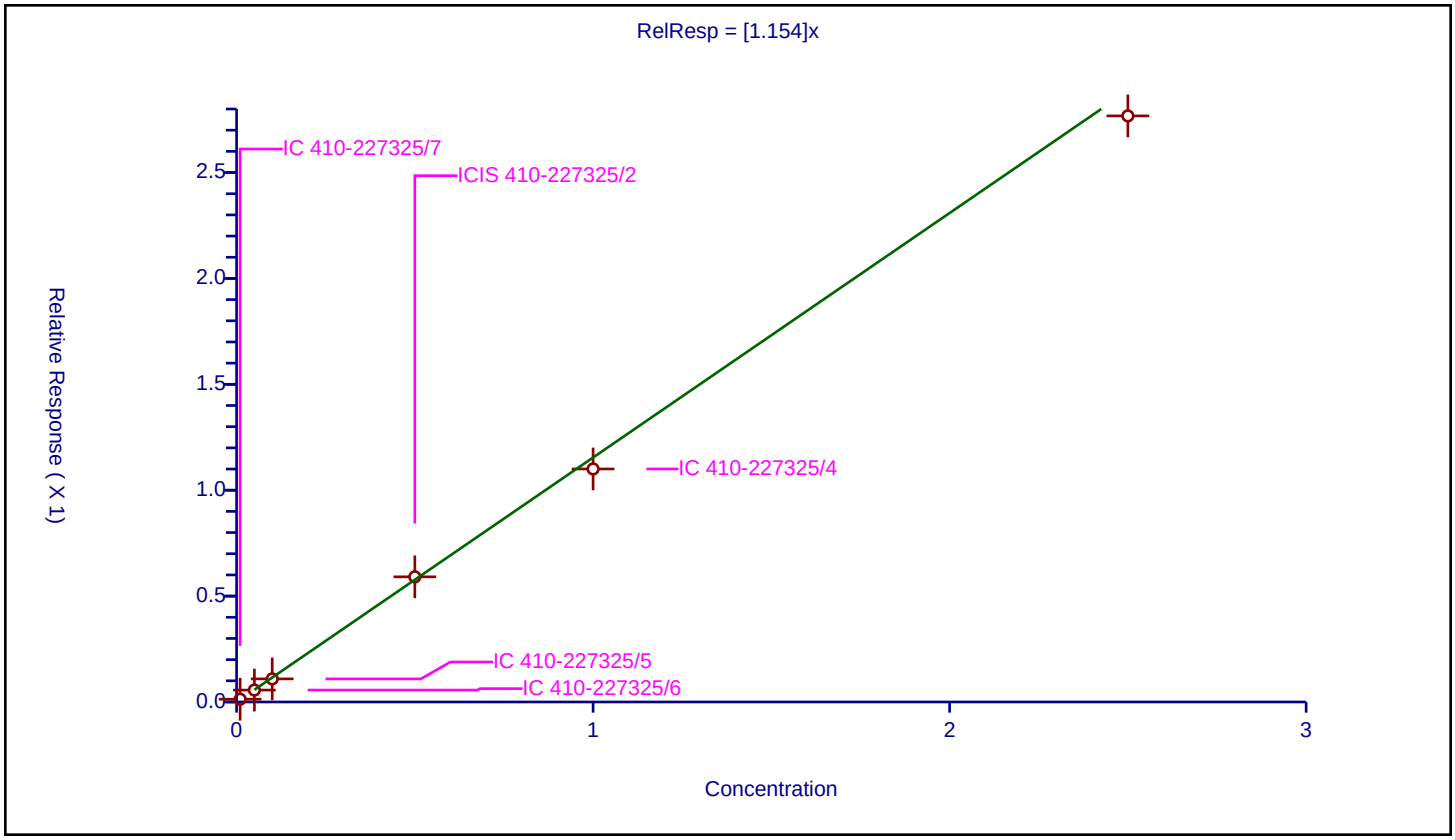
Curve Coefficients

Intercept:	0
Slope:	1.154

Error Coefficients

Standard Error:	197000
Relative Standard Error:	7.6
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.013213	0.25	37275.0	1.321261	Y
2	IC 410-227325/6	0.05	0.056268	0.25	39396.0	1.125368	Y
3	IC 410-227325/5	0.1	0.109051	0.25	39431.0	1.090513	Y
4	ICIS 410-227325/2	0.5	0.590997	0.25	41331.0	1.181994	Y
5	IC 410-227325/4	1.0	1.100365	0.25	38811.0	1.100365	Y
6	IC 410-227325/3	2.5	2.767457	0.25	35458.0	1.106983	Y



Calibration / Dibenzofuran

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

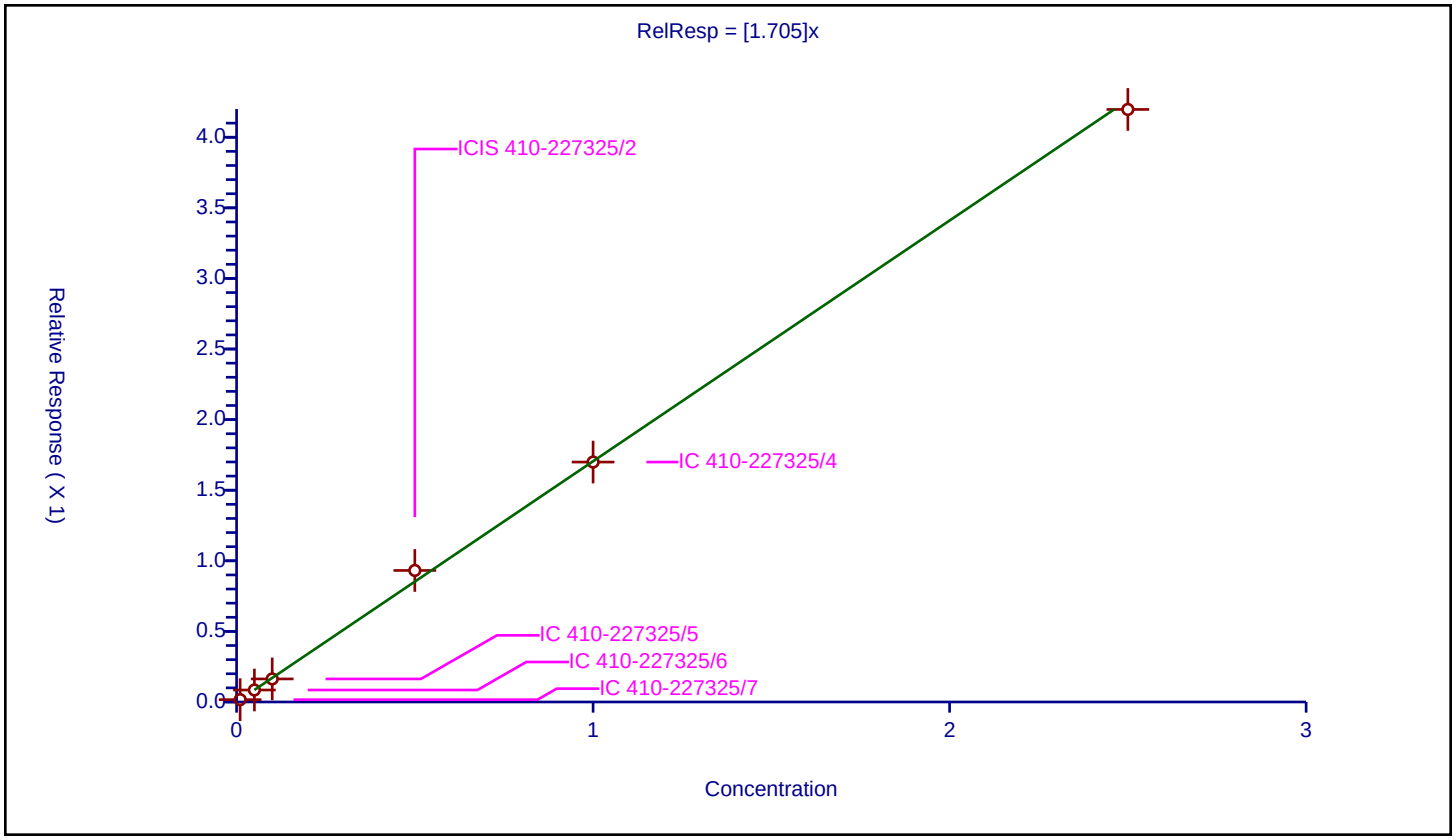
Curve Coefficients

Intercept:	0
Slope:	1.705

Error Coefficients

Standard Error:	299000
Relative Standard Error:	4.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.016566	0.25	37275.0	1.656606	Y
2	IC 410-227325/6	0.05	0.084977	0.25	39396.0	1.699538	Y
3	IC 410-227325/5	0.1	0.163266	0.25	39431.0	1.632662	Y
4	ICIS 410-227325/2	0.5	0.931589	0.25	41331.0	1.863178	Y
5	IC 410-227325/4	1.0	1.699357	0.25	38811.0	1.699357	Y
6	IC 410-227325/3	2.5	4.196958	0.25	35458.0	1.678783	Y



Calibration / Diethyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

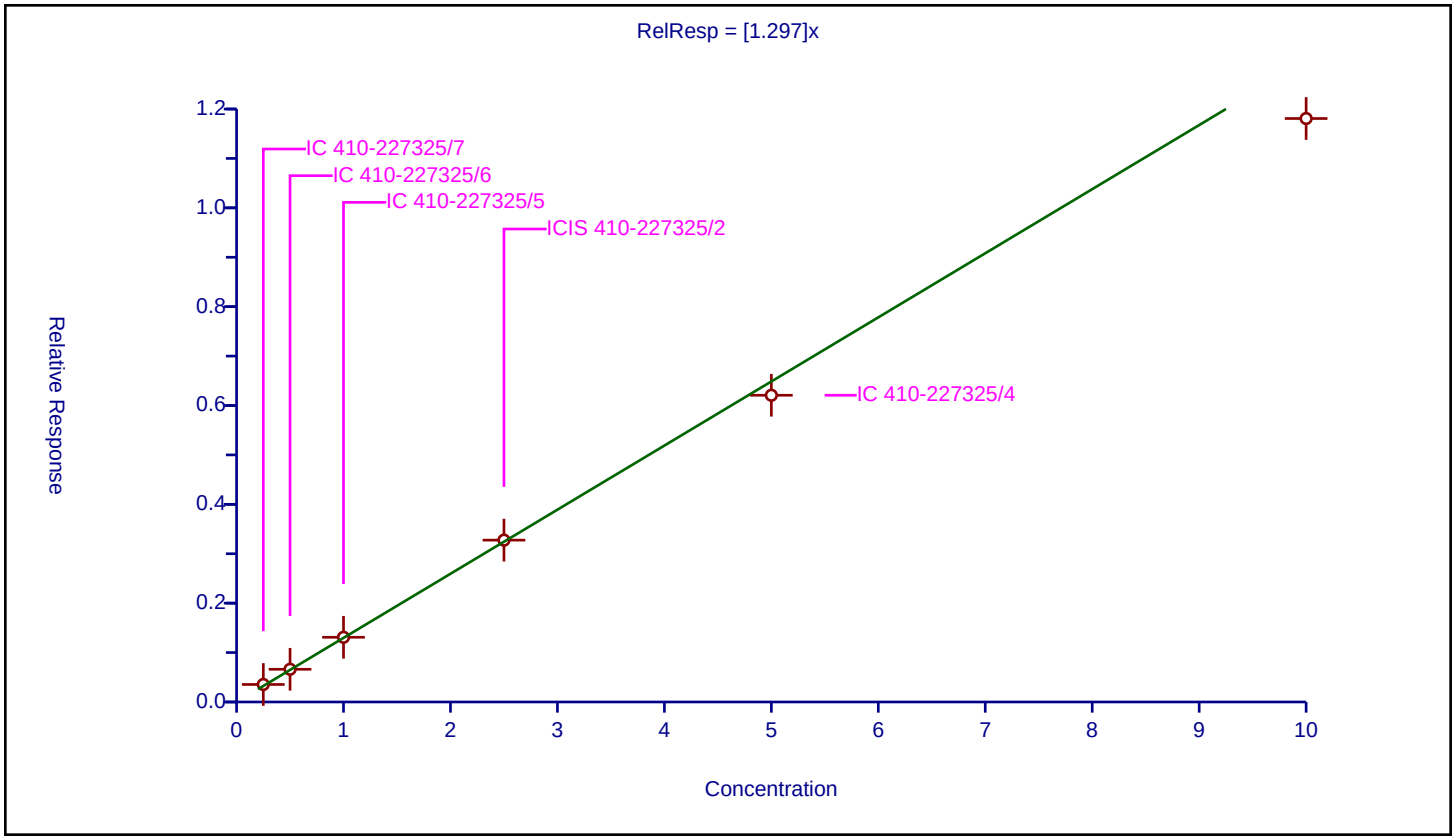
Curve Coefficients

Intercept:	0
Slope:	1.297

Error Coefficients

Standard Error:	904000
Relative Standard Error:	6.2
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.25	0.354427	0.25	37275.0	1.417706	Y
2	IC 410-227325/6	0.5	0.66173	0.25	39396.0	1.323459	Y
3	IC 410-227325/5	1.0	1.309699	0.25	39431.0	1.309699	Y
4	ICIS 410-227325/2	2.5	3.275616	0.25	41331.0	1.310247	Y
5	IC 410-227325/4	5.0	6.207538	0.25	38811.0	1.241508	Y
6	IC 410-227325/3	10.0	11.807737	0.25	35458.0	1.180774	Y



Calibration / Fluorene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

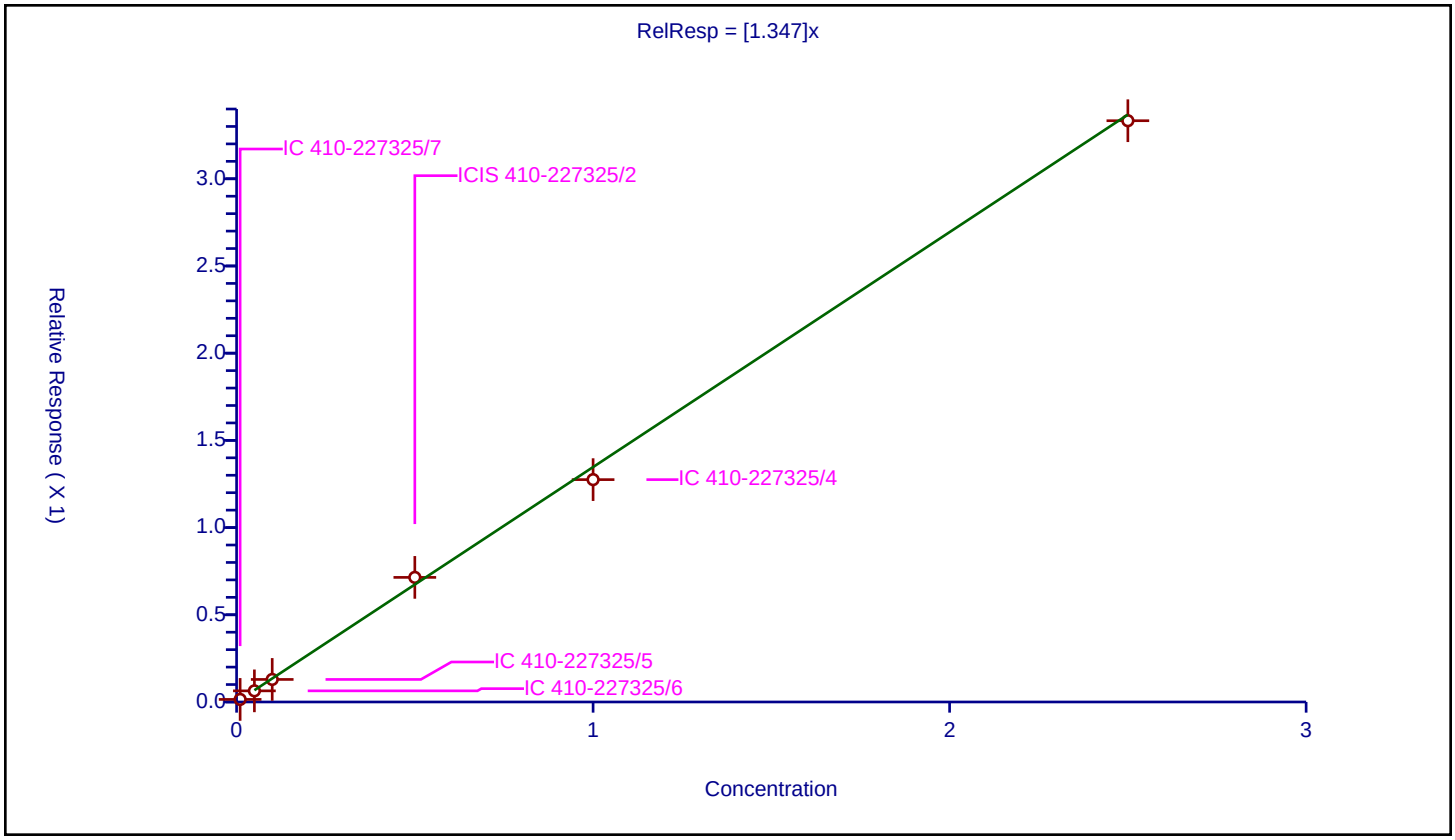
Curve Coefficients

Intercept:	0
Slope:	1.347

Error Coefficients

Standard Error:	235000
Relative Standard Error:	6.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.014769	0.25	37275.0	1.476861	Y
2	IC 410-227325/6	0.05	0.063763	0.25	39396.0	1.275256	Y
3	IC 410-227325/5	0.1	0.129308	0.25	39431.0	1.293082	Y
4	ICIS 410-227325/2	0.5	0.714427	0.25	41331.0	1.428855	Y
5	IC 410-227325/4	1.0	1.275038	0.25	38811.0	1.275038	Y
6	IC 410-227325/3	2.5	3.332873	0.25	35458.0	1.333149	Y



Calibration / N-Nitrosodiphenylamine

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

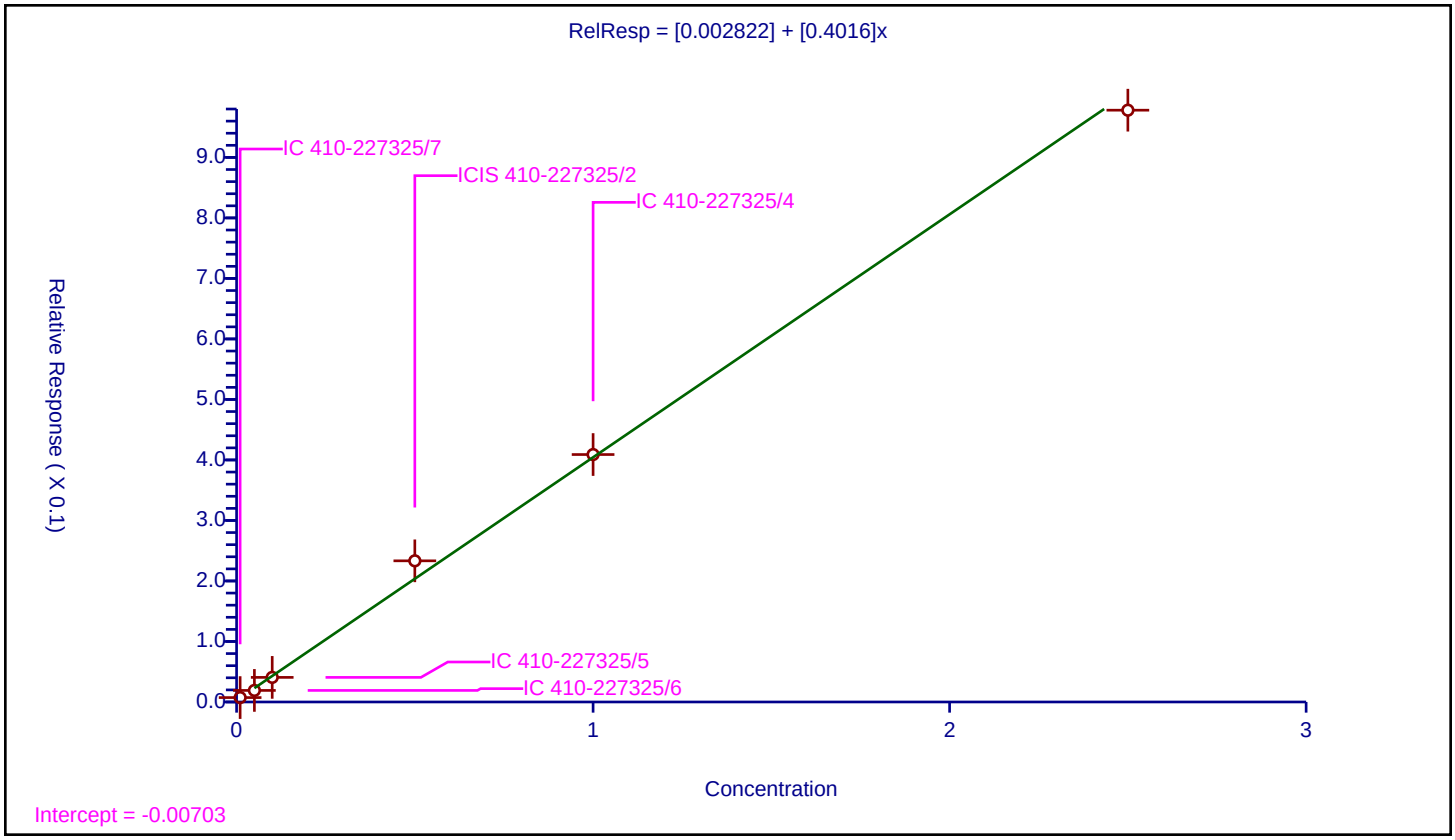
Curve Coefficients

Intercept:	0.002822
Slope:	0.4016

Error Coefficients

Standard Error:	150000
Relative Standard Error:	13.7
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.0073	0.25	61681.0	0.729965	Y
2	IC 410-227325/6	0.05	0.019118	0.25	69292.0	0.382367	Y
3	IC 410-227325/5	0.1	0.040675	0.25	69213.0	0.406752	Y
4	ICIS 410-227325/2	0.5	0.233271	0.25	74603.0	0.466543	Y
5	IC 410-227325/4	1.0	0.408952	0.25	71858.0	0.408952	Y
6	IC 410-227325/3	2.5	0.978072	0.25	67984.0	0.391229	Y



Calibration / Hexachlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

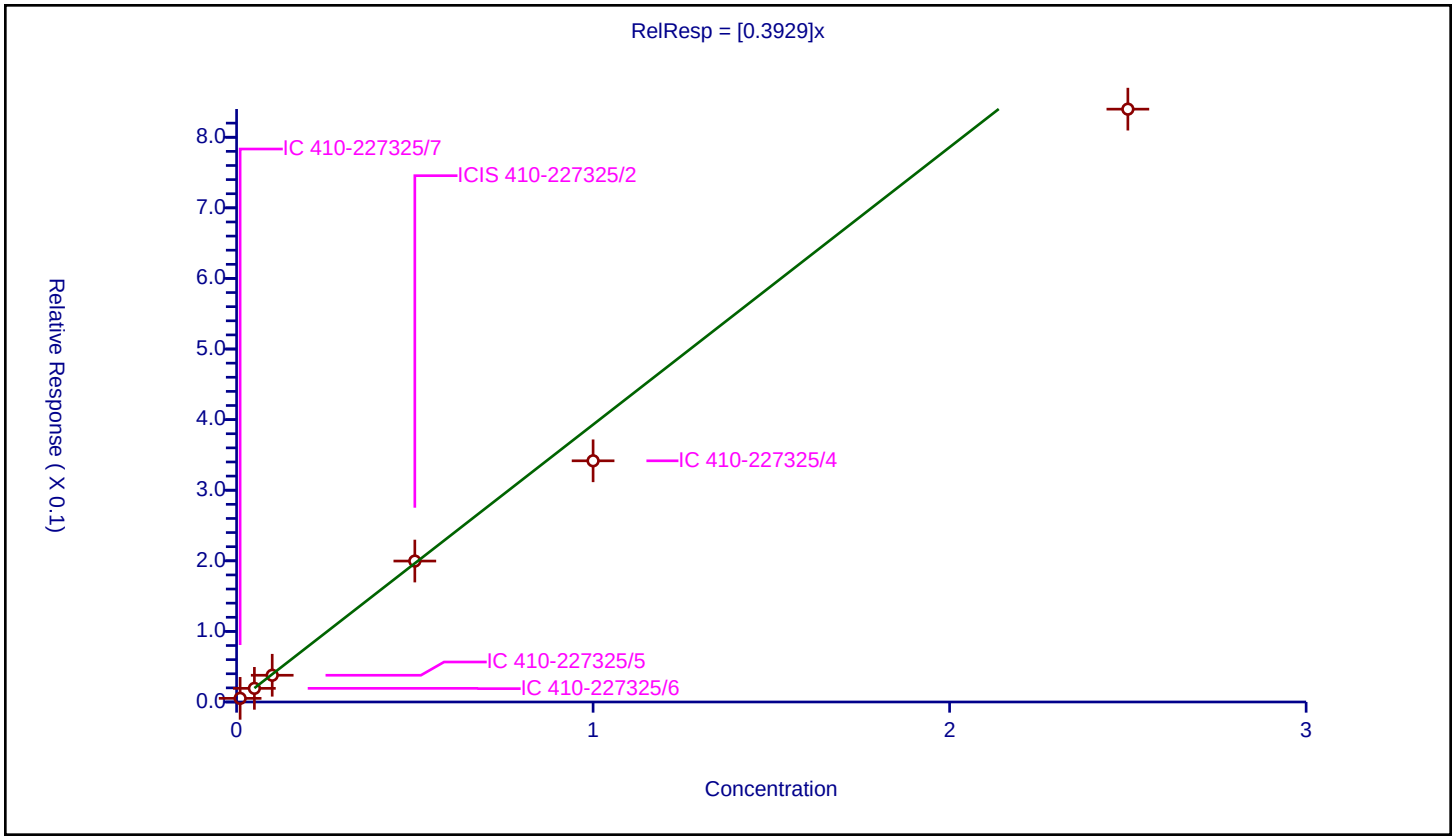
Curve Coefficients

Intercept:	0
Slope:	0.3929

Error Coefficients

Standard Error:	114000
Relative Standard Error:	16.6
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.962

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.005156	0.25	61681.0	0.515556	Y
2	IC 410-227325/6	0.05	0.01932	0.25	69292.0	0.386408	Y
3	IC 410-227325/5	0.1	0.037869	0.25	69213.0	0.378686	Y
4	ICIS 410-227325/2	0.5	0.199667	0.25	74603.0	0.399334	Y
5	IC 410-227325/4	1.0	0.34165	0.25	71858.0	0.34165	Y
6	IC 410-227325/3	2.5	0.839815	0.25	67984.0	0.335926	Y



Calibration / Phenanthrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

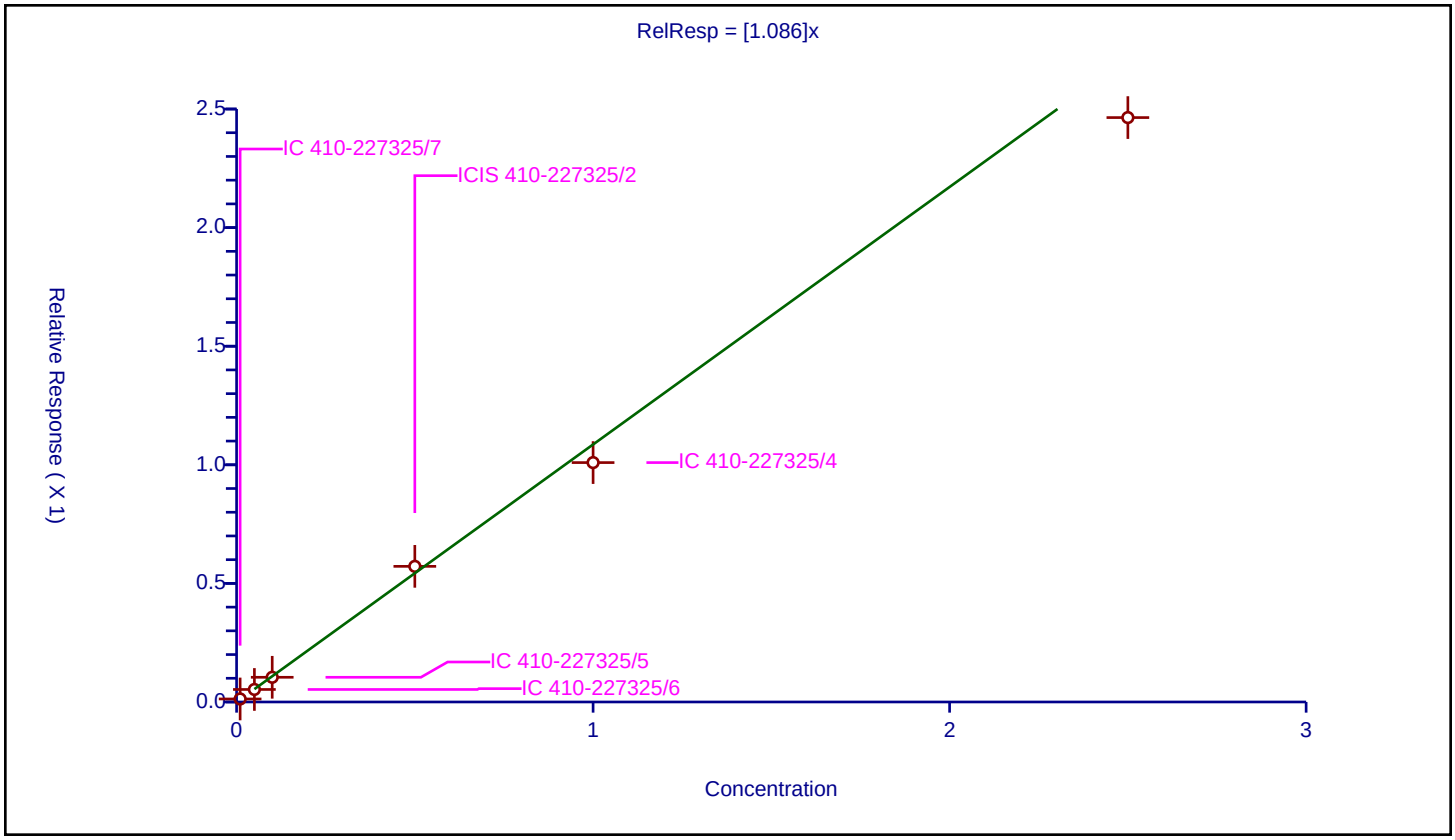
Curve Coefficients

Intercept:	0
Slope:	1.086

Error Coefficients

Standard Error:	336000
Relative Standard Error:	10.0
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.012775	0.25	61681.0	1.277541	Y
2	IC 410-227325/6	0.05	0.052827	0.25	69292.0	1.056543	Y
3	IC 410-227325/5	0.1	0.10416	0.25	69213.0	1.041603	Y
4	ICIS 410-227325/2	0.5	0.571847	0.25	74603.0	1.143694	Y
5	IC 410-227325/4	1.0	1.009307	0.25	71858.0	1.009307	Y
6	IC 410-227325/3	2.5	2.463859	0.25	67984.0	0.985544	Y



Calibration / Anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

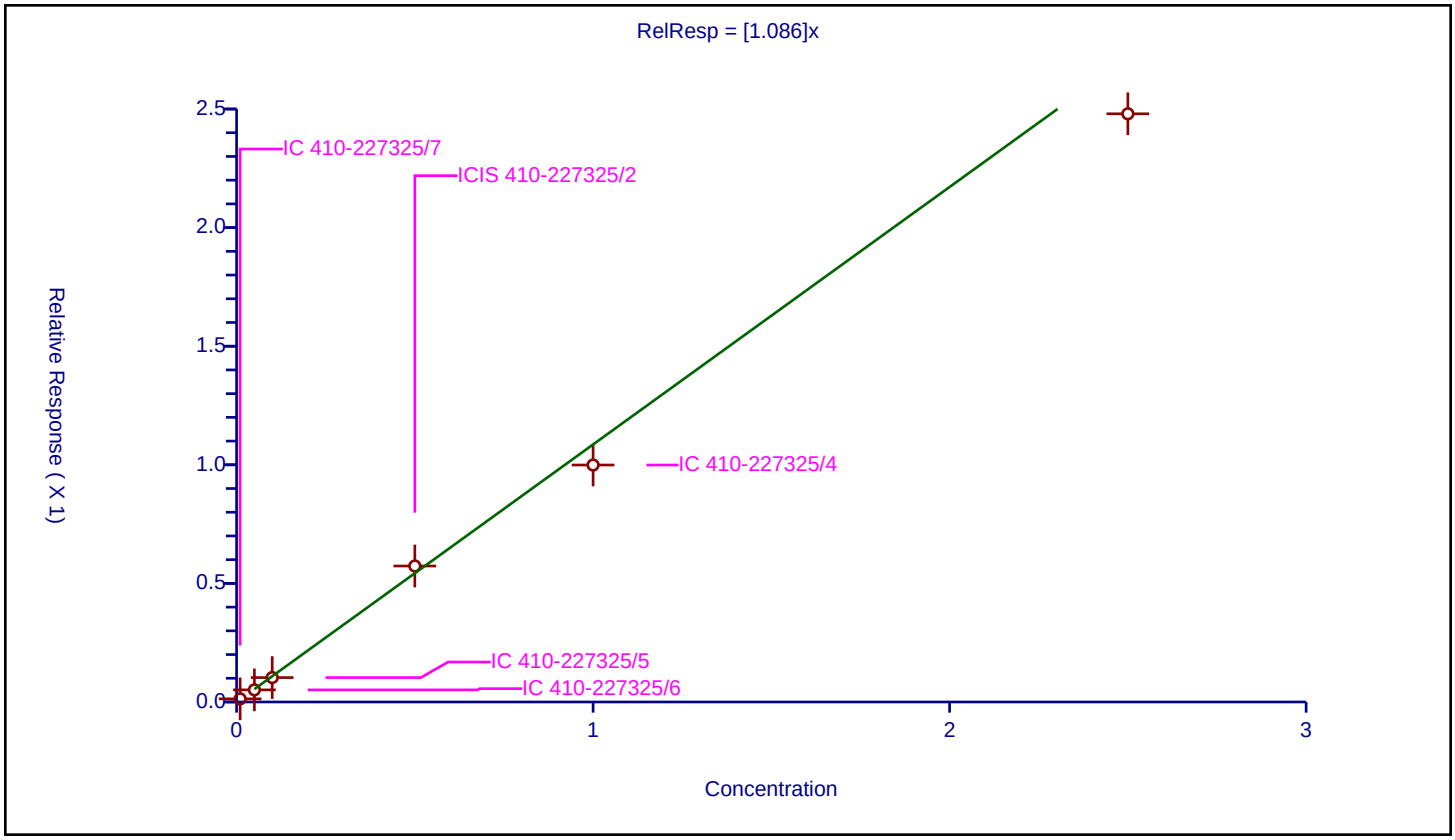
Curve Coefficients

Intercept:	0
Slope:	1.086

Error Coefficients

Standard Error:	337000
Relative Standard Error:	12.0
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.013258	0.25	61681.0	1.325773	Y
2	IC 410-227325/6	0.05	0.051067	0.25	69292.0	1.02133	Y
3	IC 410-227325/5	0.1	0.102907	0.25	69213.0	1.02907	Y
4	ICIS 410-227325/2	0.5	0.573352	0.25	74603.0	1.146703	Y
5	IC 410-227325/4	1.0	0.999134	0.25	71858.0	0.999134	Y
6	IC 410-227325/3	2.5	2.479845	0.25	67984.0	0.991938	Y



Calibration / Di-n-butyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

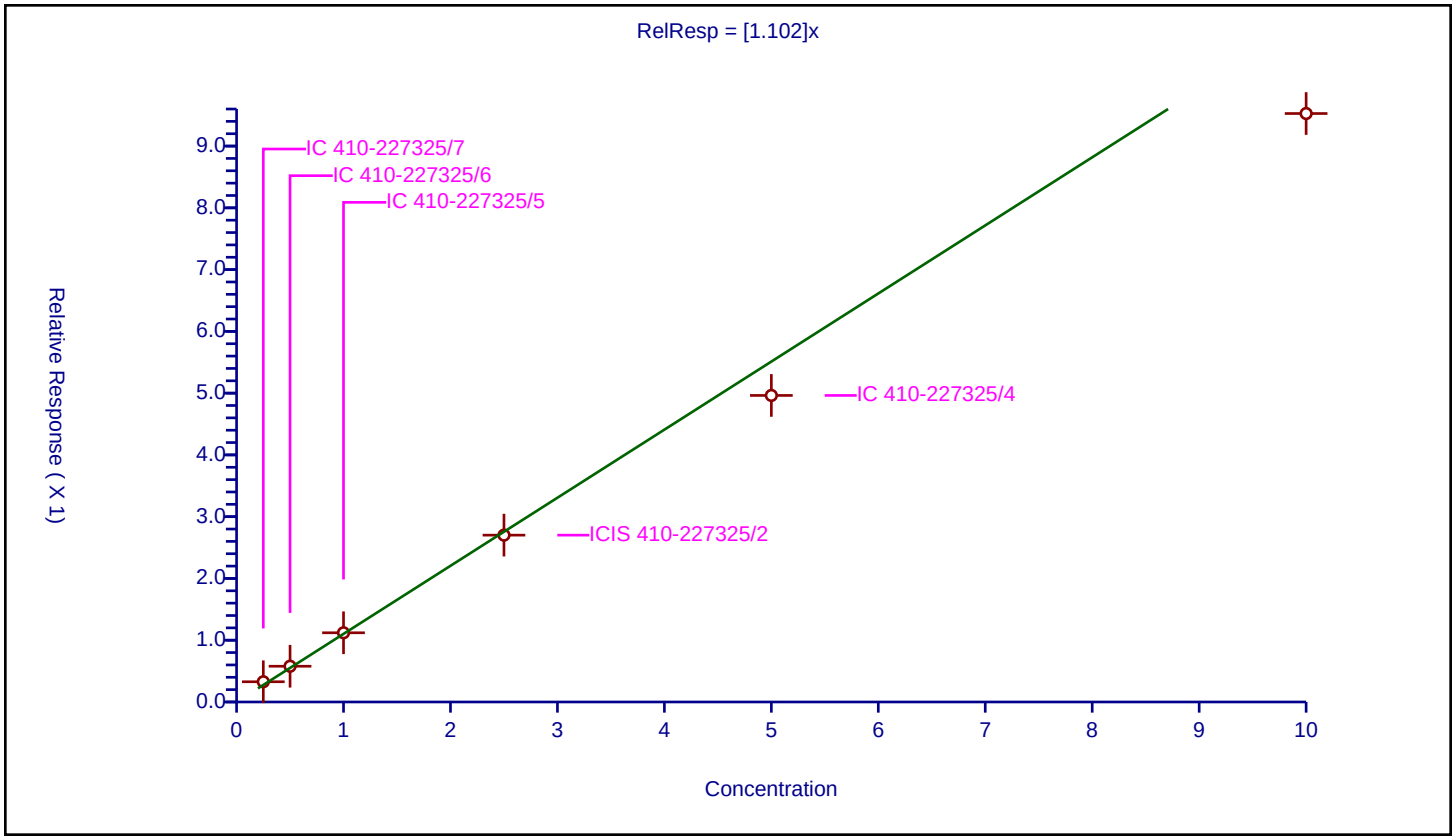
Curve Coefficients

Intercept:	0
Slope:	1.102

Error Coefficients

Standard Error:	1380000
Relative Standard Error:	11.6
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.975

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.25	0.3275	0.25	61681.0	1.309998	Y
2	IC 410-227325/6	0.5	0.578606	0.25	69292.0	1.157212	Y
3	IC 410-227325/5	1.0	1.120433	0.25	69213.0	1.120433	Y
4	ICIS 410-227325/2	2.5	2.701202	0.25	74603.0	1.080481	Y
5	IC 410-227325/4	5.0	4.962722	0.25	71858.0	0.992544	Y
6	IC 410-227325/3	10.0	9.526848	0.25	67984.0	0.952685	Y



Calibration / Fluoranthene-d10 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

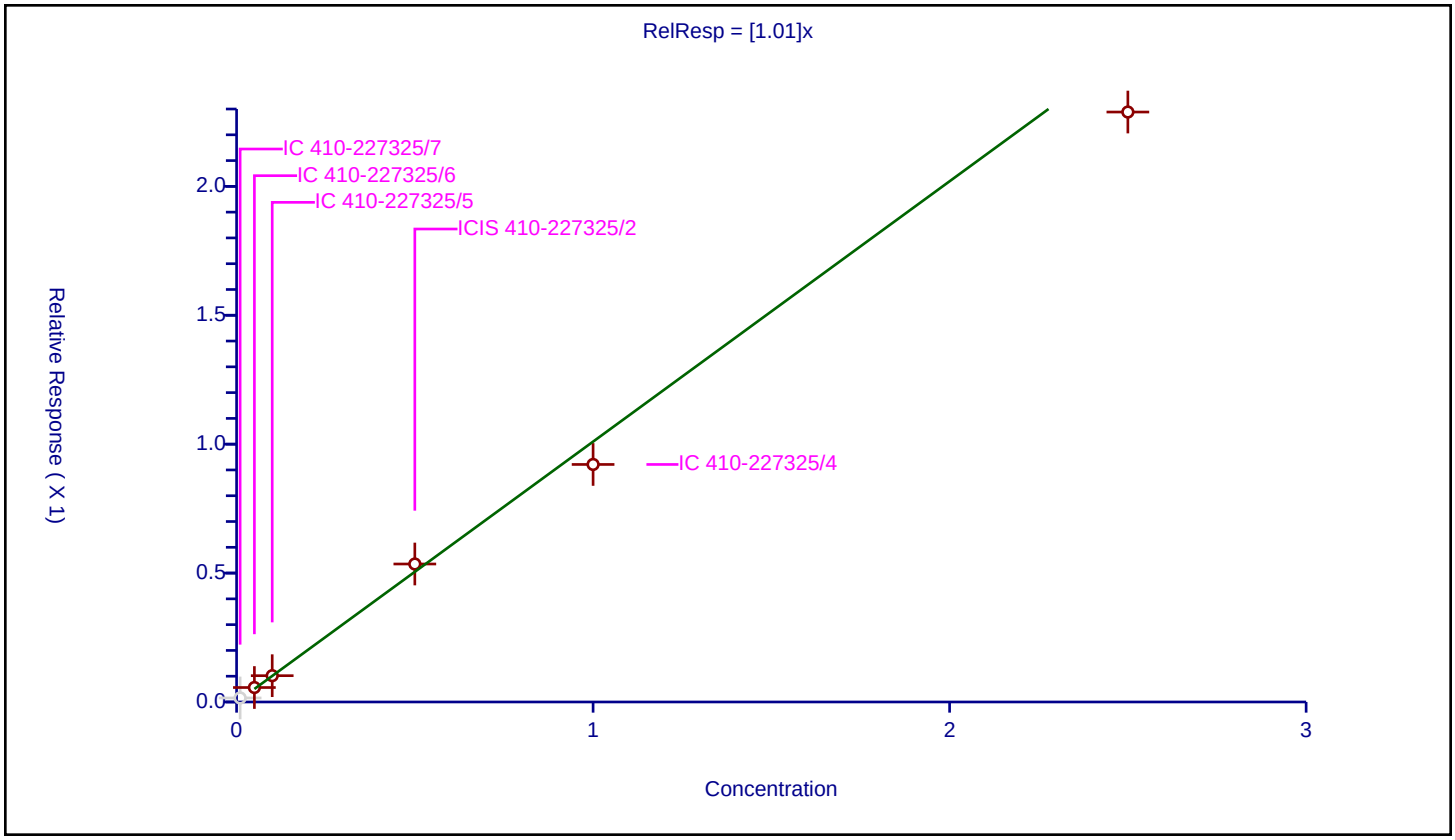
Curve Coefficients

Intercept:	0
Slope:	1.01

Error Coefficients

Standard Error:	348000
Relative Standard Error:	9.0
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.015677	0.25	61681.0	1.567744	N
2	IC 410-227325/6	0.05	0.056092	0.25	69292.0	1.121847	Y
3	IC 410-227325/5	0.1	0.10204	0.25	69213.0	1.020401	Y
4	ICIS 410-227325/2	0.5	0.535206	0.25	74603.0	1.070413	Y
5	IC 410-227325/4	1.0	0.921352	0.25	71858.0	0.921352	Y
6	IC 410-227325/3	2.5	2.288336	0.25	67984.0	0.915334	Y



Calibration / Fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

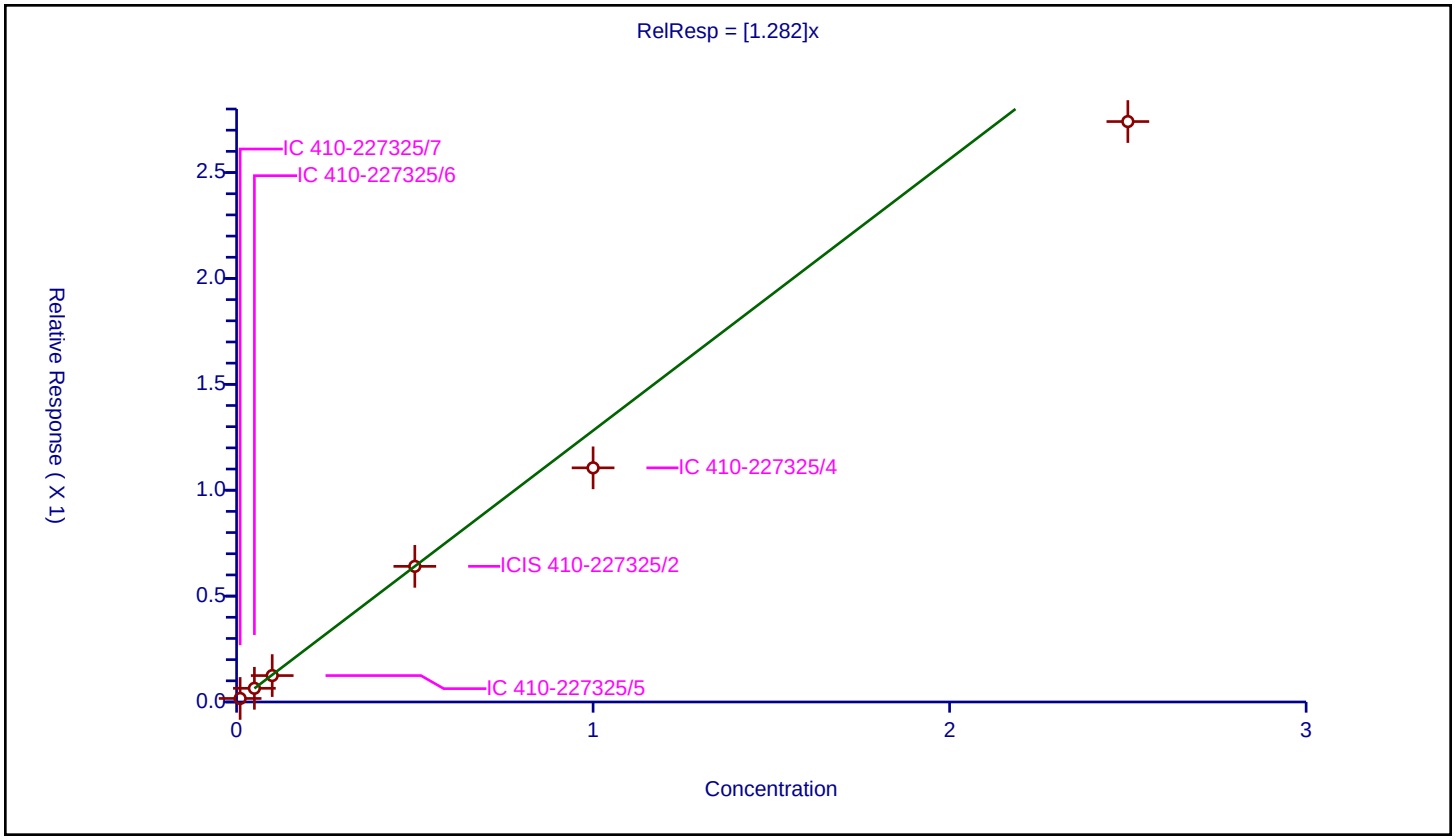
Curve Coefficients

Intercept:	0
Slope:	1.282

Error Coefficients

Standard Error:	373000
Relative Standard Error:	16.2
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.964

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.016666	0.25	61681.0	1.66664	Y
2	IC 410-227325/6	0.05	0.064621	0.25	69292.0	1.292429	Y
3	IC 410-227325/5	0.1	0.124745	0.25	69213.0	1.247454	Y
4	ICIS 410-227325/2	0.5	0.64048	0.25	74603.0	1.280961	Y
5	IC 410-227325/4	1.0	1.105604	0.25	71858.0	1.105604	Y
6	IC 410-227325/3	2.5	2.740829	0.25	67984.0	1.096331	Y



Calibration / Pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

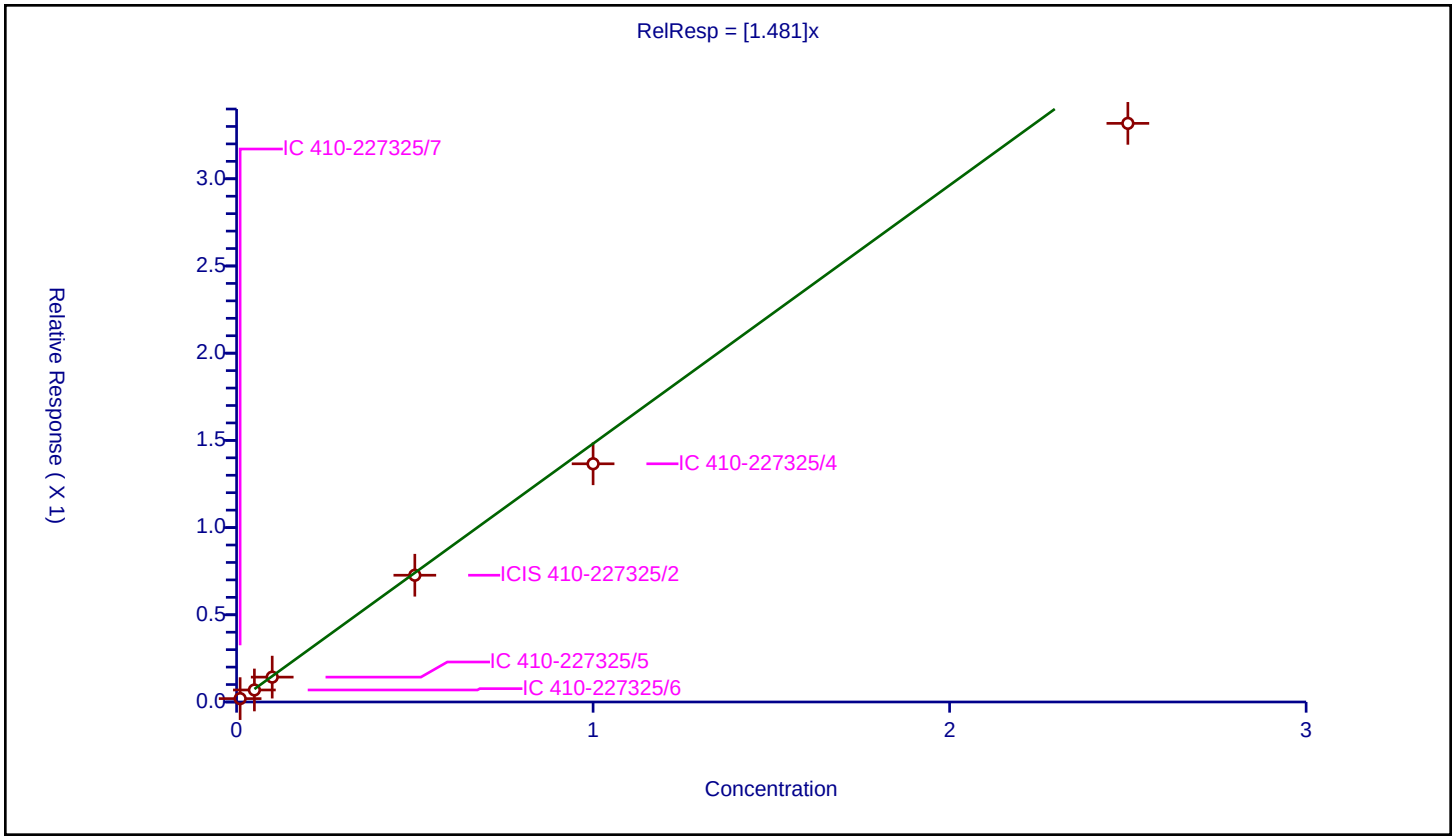
Curve Coefficients

Intercept:	0
Slope:	1.481

Error Coefficients

Standard Error:	393000
Relative Standard Error:	15.4
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.967

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.019375	0.25	57859.0	1.937469	Y
2	IC 410-227325/6	0.05	0.068937	0.25	67116.0	1.378732	Y
3	IC 410-227325/5	0.1	0.142594	0.25	62997.0	1.425941	Y
4	ICIS 410-227325/2	0.5	0.726778	0.25	69373.0	1.453555	Y
5	IC 410-227325/4	1.0	1.365725	0.25	63206.0	1.365725	Y
6	IC 410-227325/3	2.5	3.317753	0.25	58909.0	1.327101	Y



Calibration / Butyl benzyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

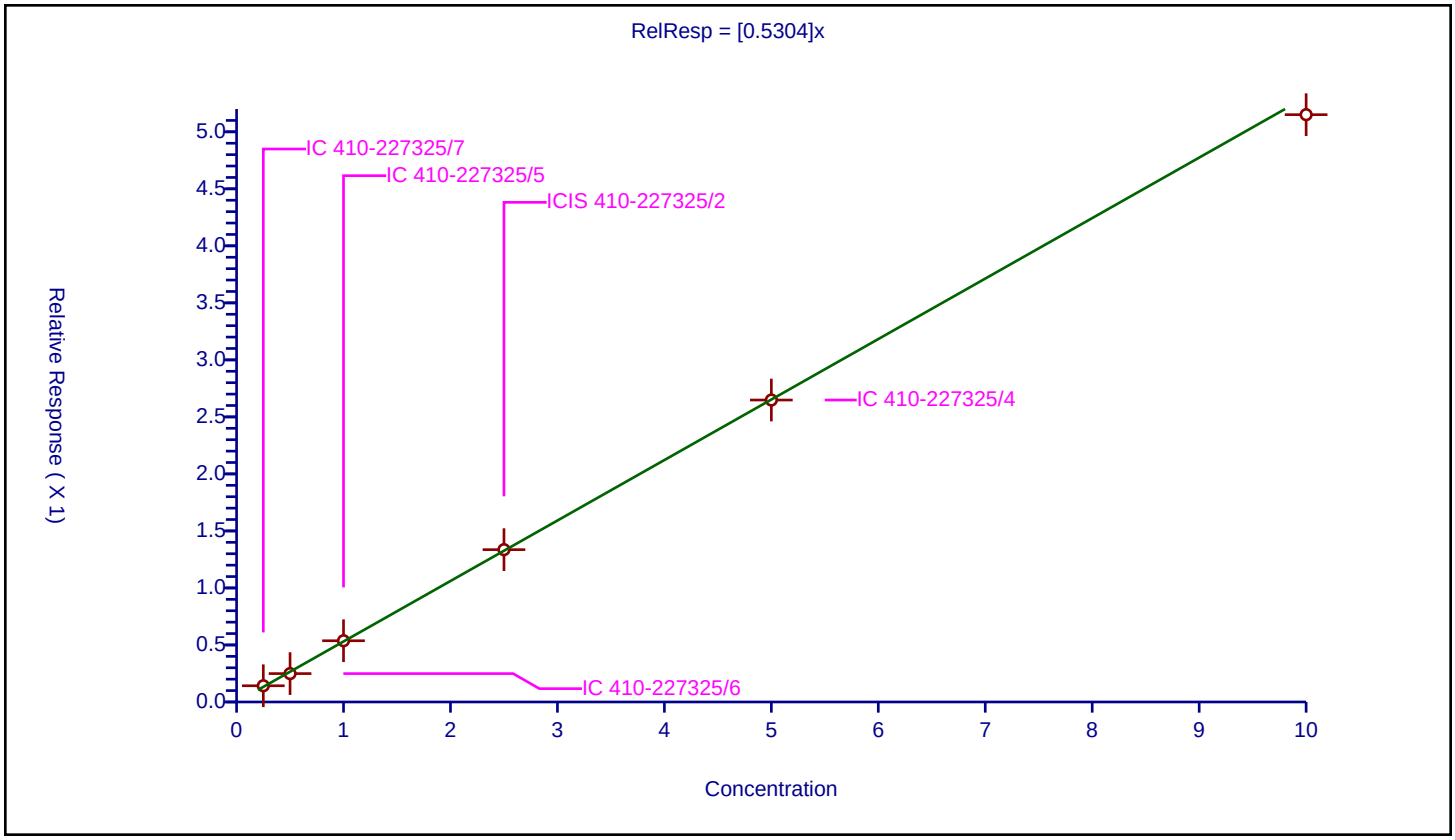
Curve Coefficients

Intercept:	0
Slope:	0.5304

Error Coefficients

Standard Error:	645000
Relative Standard Error:	4.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.25	0.142212	0.25	57859.0	0.568848	Y
2	IC 410-227325/6	0.5	0.248838	0.25	67116.0	0.497676	Y
3	IC 410-227325/5	1.0	0.537045	0.25	62997.0	0.537045	Y
4	ICIS 410-227325/2	2.5	1.335851	0.25	69373.0	0.53434	Y
5	IC 410-227325/4	5.0	2.648028	0.25	63206.0	0.529606	Y
6	IC 410-227325/3	10.0	5.150338	0.25	58909.0	0.515034	Y



Calibration / Benzo[a]anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

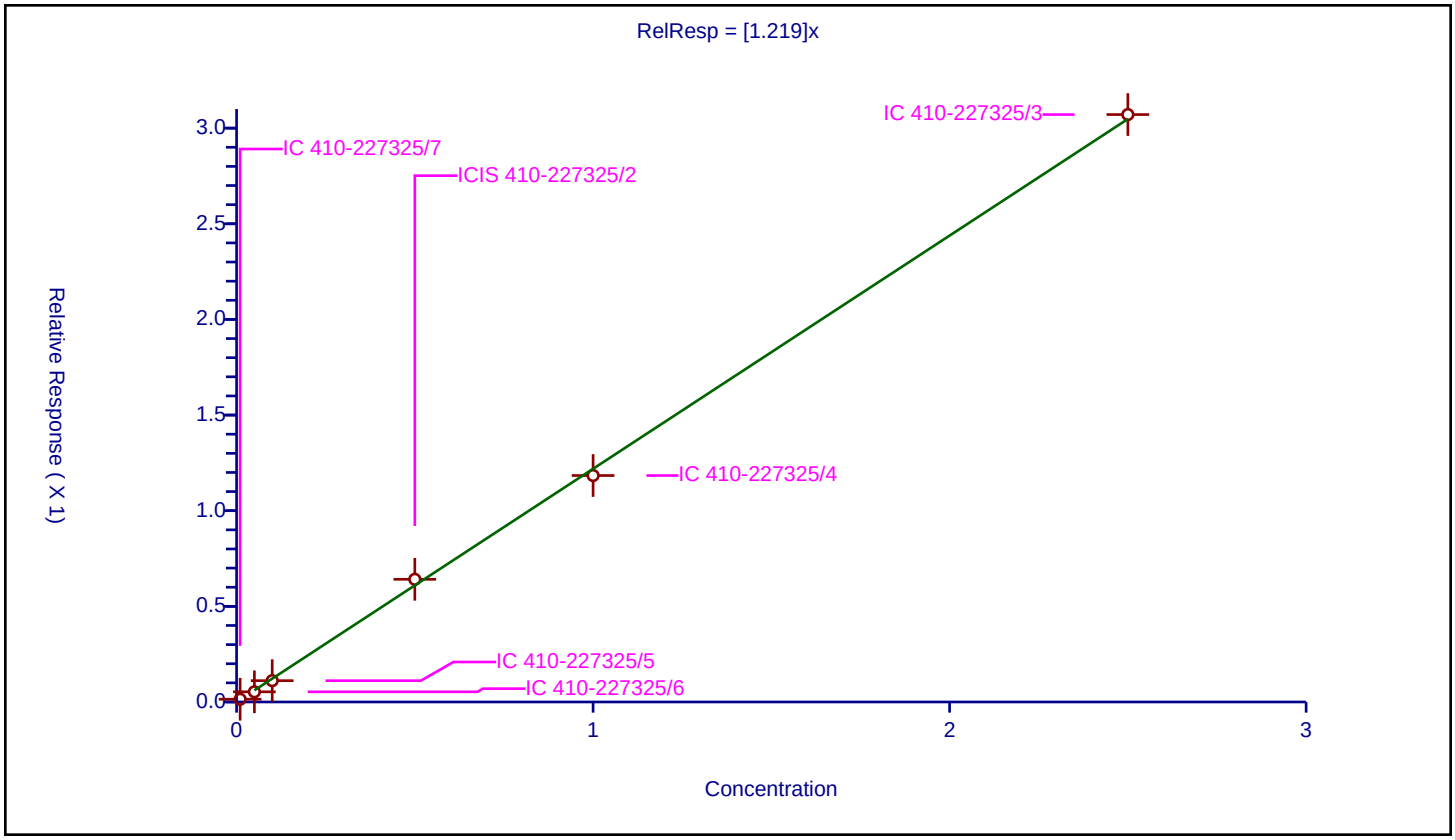
Curve Coefficients

Intercept:	0
Slope:	1.219

Error Coefficients

Standard Error:	359000
Relative Standard Error:	10.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.014401	0.25	57859.0	1.440139	Y
2	IC 410-227325/6	0.05	0.053229	0.25	67116.0	1.064575	Y
3	IC 410-227325/5	0.1	0.111481	0.25	62997.0	1.114815	Y
4	ICIS 410-227325/2	0.5	0.641334	0.25	69373.0	1.282668	Y
5	IC 410-227325/4	1.0	1.18397	0.25	63206.0	1.18397	Y
6	IC 410-227325/3	2.5	3.070995	0.25	58909.0	1.228398	Y



Calibration / Chrysene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

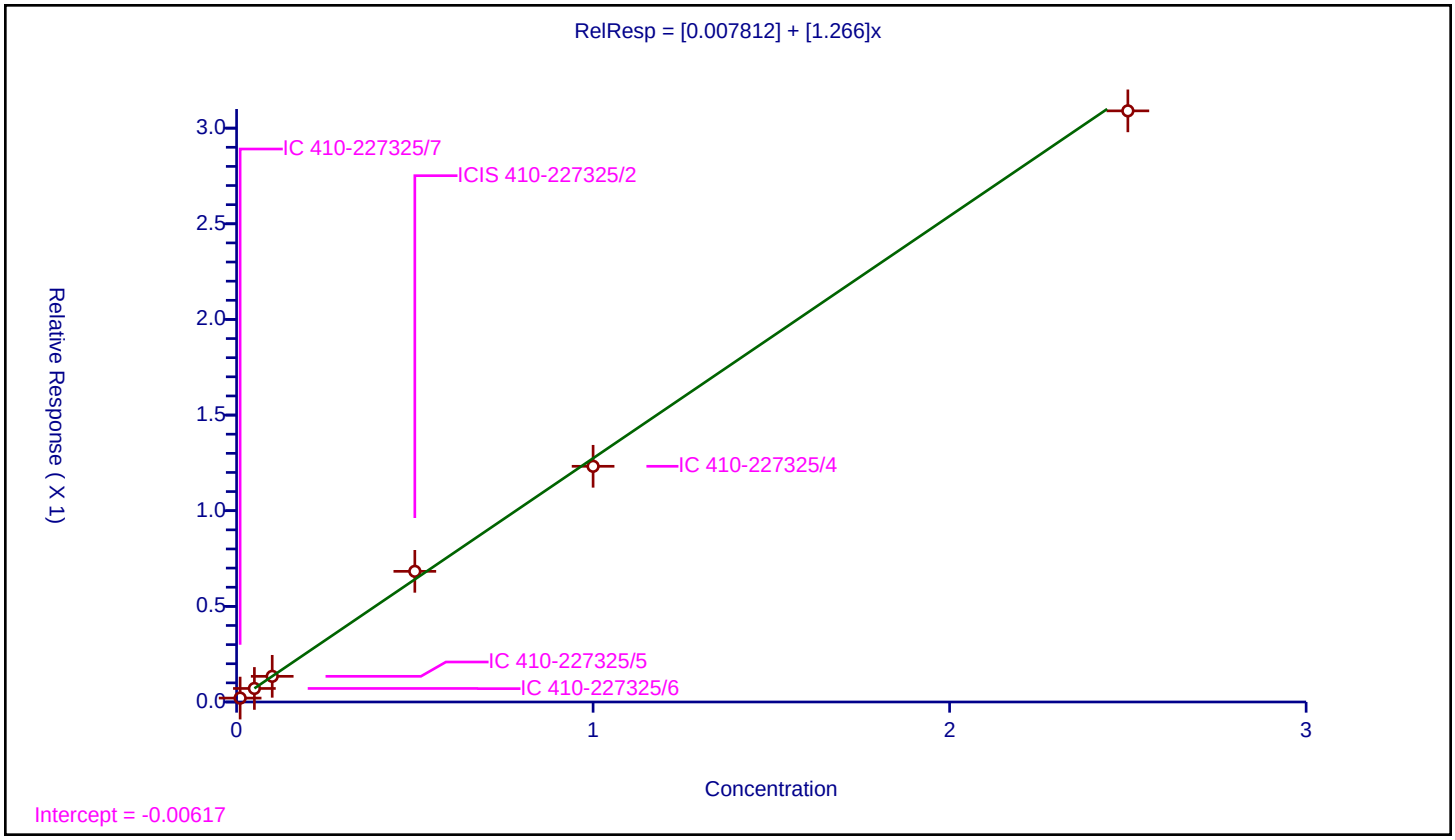
Curve Coefficients

Intercept:	0.007812
Slope:	1.266

Error Coefficients

Standard Error:	408000
Relative Standard Error:	4.0
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.020481	0.25	57859.0	2.048082	Y
2	IC 410-227325/6	0.05	0.070736	0.25	67116.0	1.414715	Y
3	IC 410-227325/5	0.1	0.134244	0.25	62997.0	1.342445	Y
4	ICIS 410-227325/2	0.5	0.683065	0.25	69373.0	1.366129	Y
5	IC 410-227325/4	1.0	1.232197	0.25	63206.0	1.232197	Y
6	IC 410-227325/3	2.5	3.090398	0.25	58909.0	1.236159	Y



Calibration / Bis(2-ethylhexyl) phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

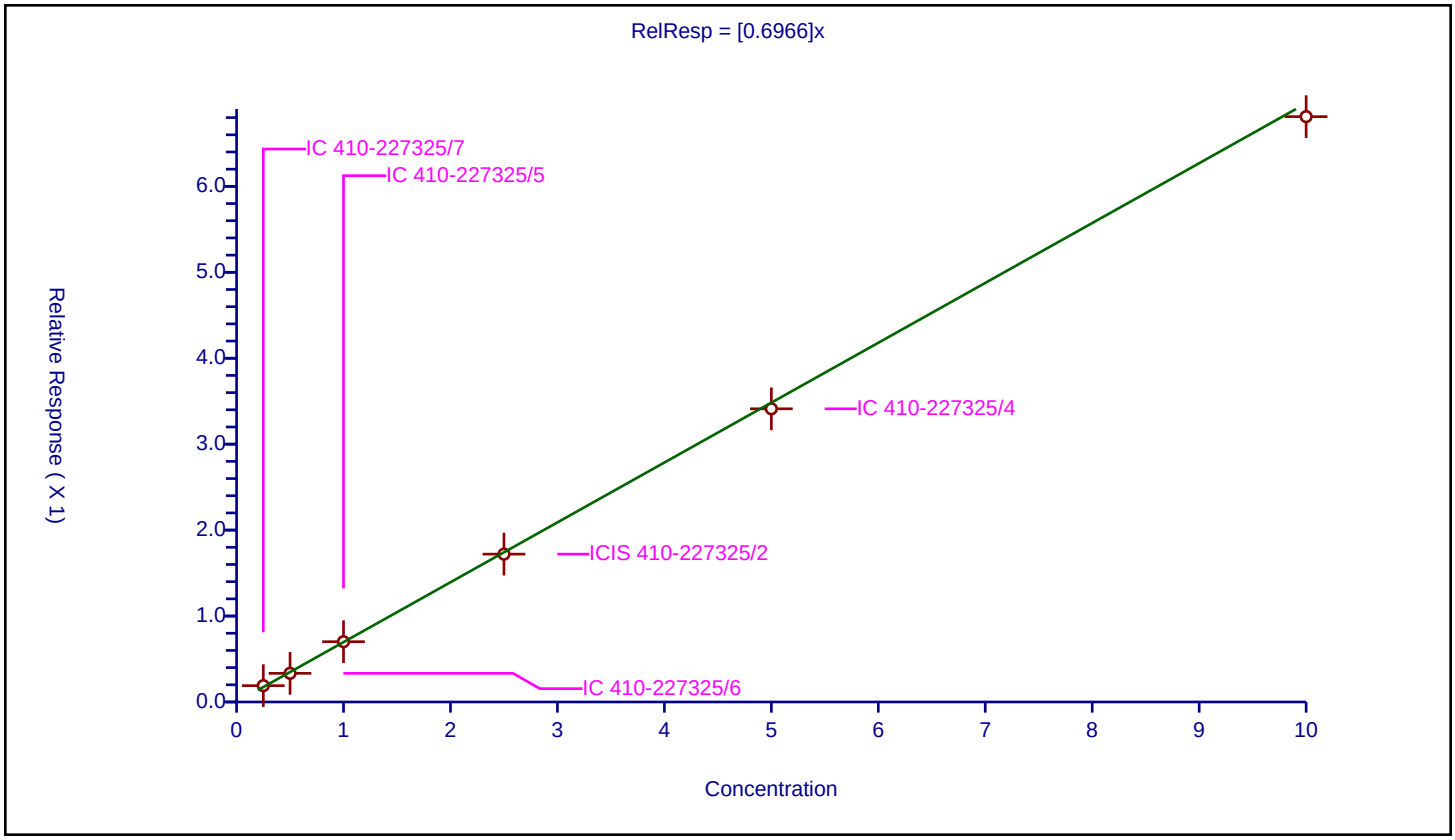
Curve Coefficients

Intercept:	0
Slope:	0.6966

Error Coefficients

Standard Error:	847000
Relative Standard Error:	4.7
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.25	0.18991	0.25	57859.0	0.75964	Y
2	IC 410-227325/6	0.5	0.333385	0.25	67116.0	0.666771	Y
3	IC 410-227325/5	1.0	0.70149	0.25	62997.0	0.70149	Y
4	ICIS 410-227325/2	2.5	1.72037	0.25	69373.0	0.688148	Y
5	IC 410-227325/4	5.0	3.411694	0.25	63206.0	0.682339	Y
6	IC 410-227325/3	10.0	6.811383	0.25	58909.0	0.681138	Y



Calibration / Di-n-octyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

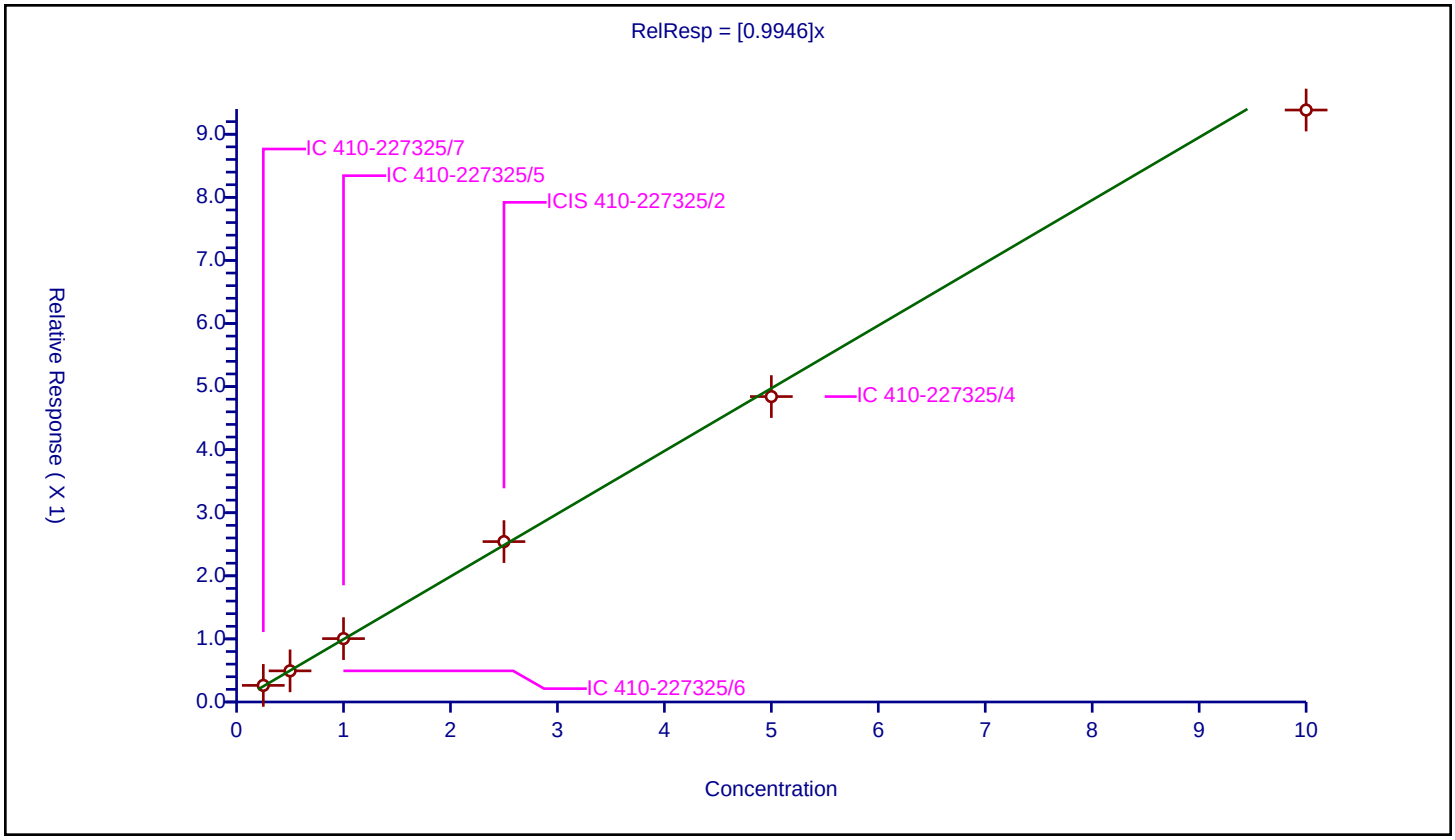
Curve Coefficients

Intercept:	0
Slope:	0.9946

Error Coefficients

Standard Error:	1490000
Relative Standard Error:	4.0
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.25	0.26302	0.25	68952.0	1.05208	Y
2	IC 410-227325/6	0.5	0.49361	0.25	75783.0	0.98722	Y
3	IC 410-227325/5	1.0	1.004423	0.25	74326.0	1.004423	Y
4	ICIS 410-227325/2	2.5	2.542392	0.25	82404.0	1.016957	Y
5	IC 410-227325/4	5.0	4.841858	0.25	76158.0	0.968372	Y
6	IC 410-227325/3	10.0	9.384088	0.25	75894.0	0.938409	Y



Calibration / Benzo[b]fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

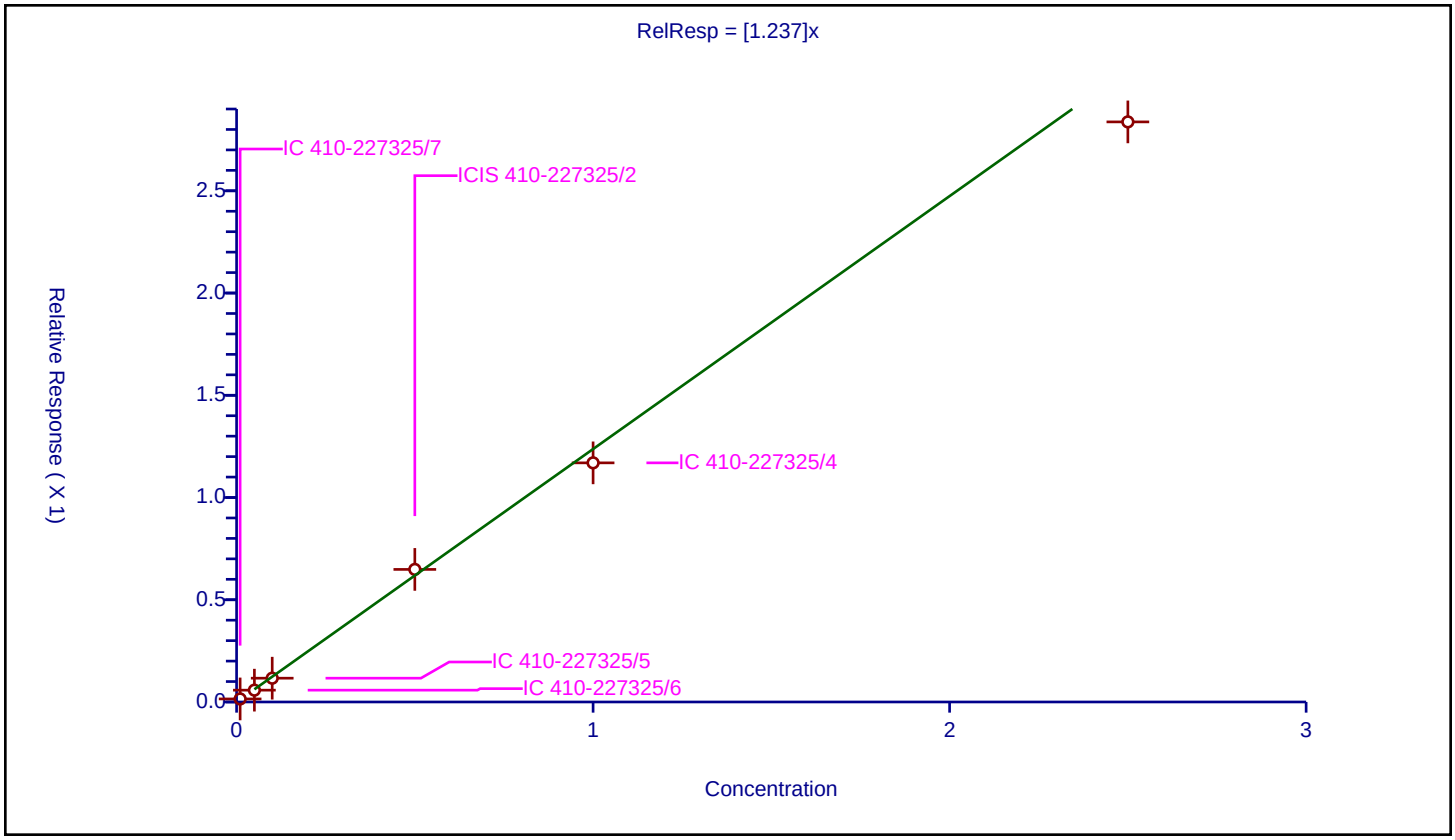
Curve Coefficients

Intercept:	0
Slope:	1.237

Error Coefficients

Standard Error:	428000
Relative Standard Error:	11.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.014989	0.25	68952.0	1.498869	Y
2	IC 410-227325/6	0.05	0.057886	0.25	75783.0	1.157713	Y
3	IC 410-227325/5	0.1	0.11644	0.25	74326.0	1.164397	Y
4	ICIS 410-227325/2	0.5	0.648427	0.25	82404.0	1.296855	Y
5	IC 410-227325/4	1.0	1.169532	0.25	76158.0	1.169532	Y
6	IC 410-227325/3	2.5	2.837019	0.25	75894.0	1.134808	Y



Calibration / Benzo[k]fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

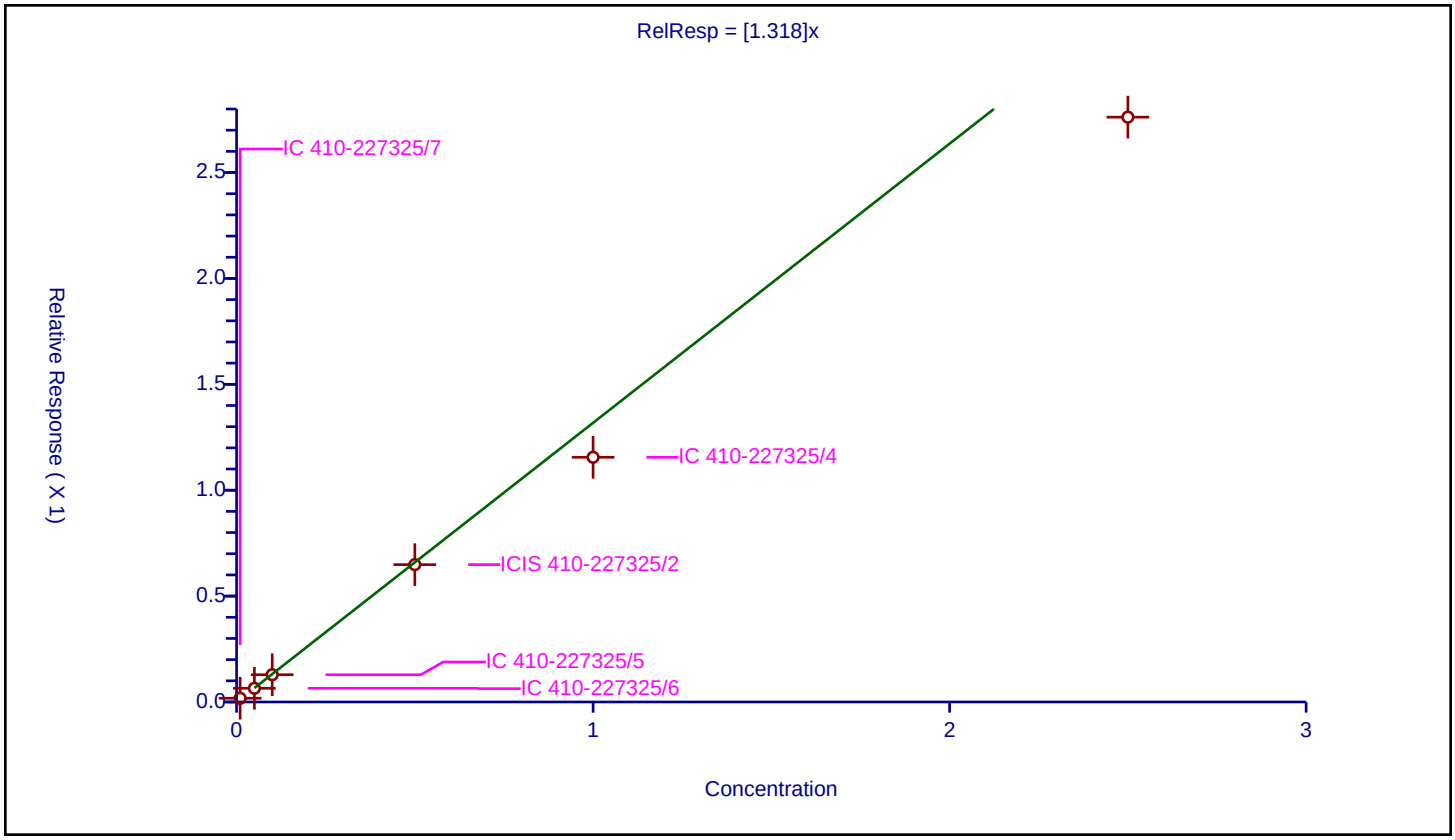
Curve Coefficients

Intercept:	0
Slope:	1.318

Error Coefficients

Standard Error:	418000
Relative Standard Error:	18.0
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.954

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.017719	0.25	68952.0	1.771885	Y
2	IC 410-227325/6	0.05	0.064629	0.25	75783.0	1.292572	Y
3	IC 410-227325/5	0.1	0.128727	0.25	74326.0	1.287268	Y
4	ICIS 410-227325/2	0.5	0.648506	0.25	82404.0	1.297012	Y
5	IC 410-227325/4	1.0	1.15547	0.25	76158.0	1.15547	Y
6	IC 410-227325/3	2.5	2.761628	0.25	75894.0	1.104651	Y



Calibration / Benzo[e]pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

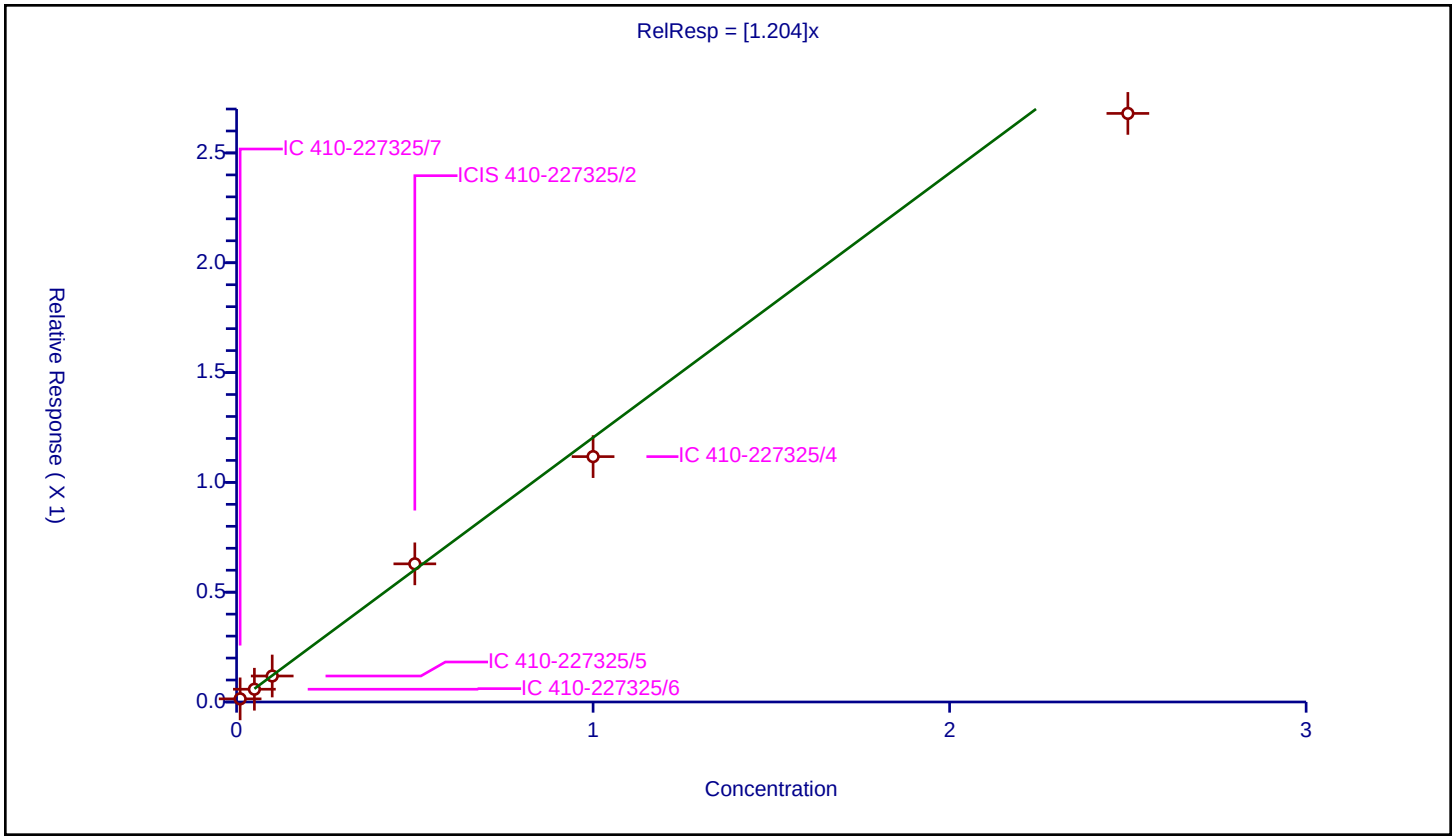
Curve Coefficients

Intercept:	0
Slope:	1.204

Error Coefficients

Standard Error:	406000
Relative Standard Error:	10.6
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.014307	0.25	68952.0	1.430705	Y
2	IC 410-227325/6	0.05	0.058153	0.25	75783.0	1.163058	Y
3	IC 410-227325/5	0.1	0.11831	0.25	74326.0	1.183099	Y
4	ICIS 410-227325/2	0.5	0.629047	0.25	82404.0	1.258094	Y
5	IC 410-227325/4	1.0	1.117322	0.25	76158.0	1.117322	Y
6	IC 410-227325/3	2.5	2.679958	0.25	75894.0	1.071983	Y



Calibration / Benzo(a)pyrene-d12 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

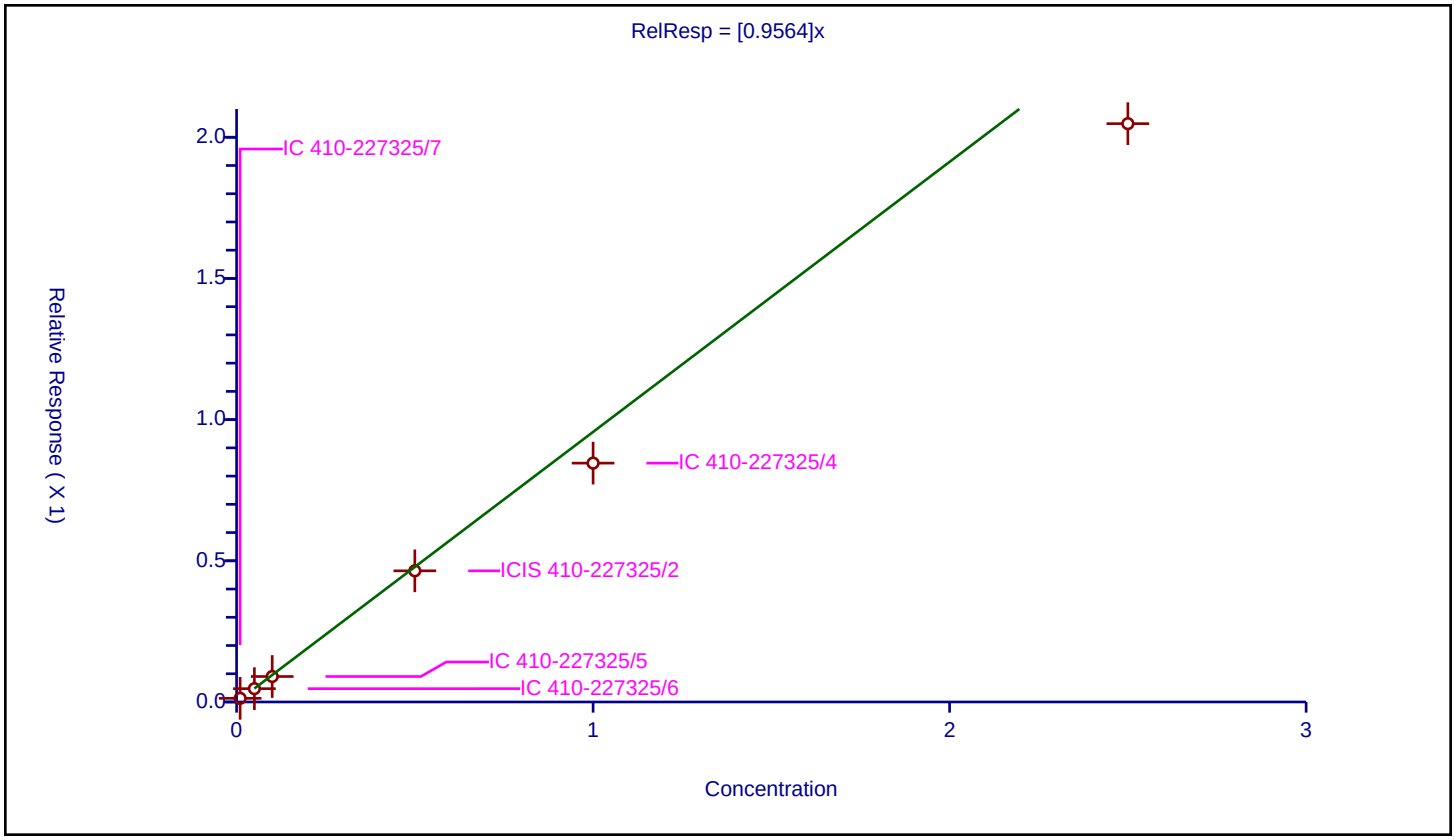
Curve Coefficients

Intercept:	0
Slope:	0.9564

Error Coefficients

Standard Error:	309000
Relative Standard Error:	18.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.952

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.01298	0.25	68952.0	1.298004	Y
2	IC 410-227325/6	0.05	0.047184	0.25	75783.0	0.943681	Y
3	IC 410-227325/5	0.1	0.090271	0.25	74326.0	0.902712	Y
4	ICIS 410-227325/2	0.5	0.464471	0.25	82404.0	0.928942	Y
5	IC 410-227325/4	1.0	0.845929	0.25	76158.0	0.845929	Y
6	IC 410-227325/3	2.5	2.048136	0.25	75894.0	0.819254	Y



Calibration / Benzo[a]pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

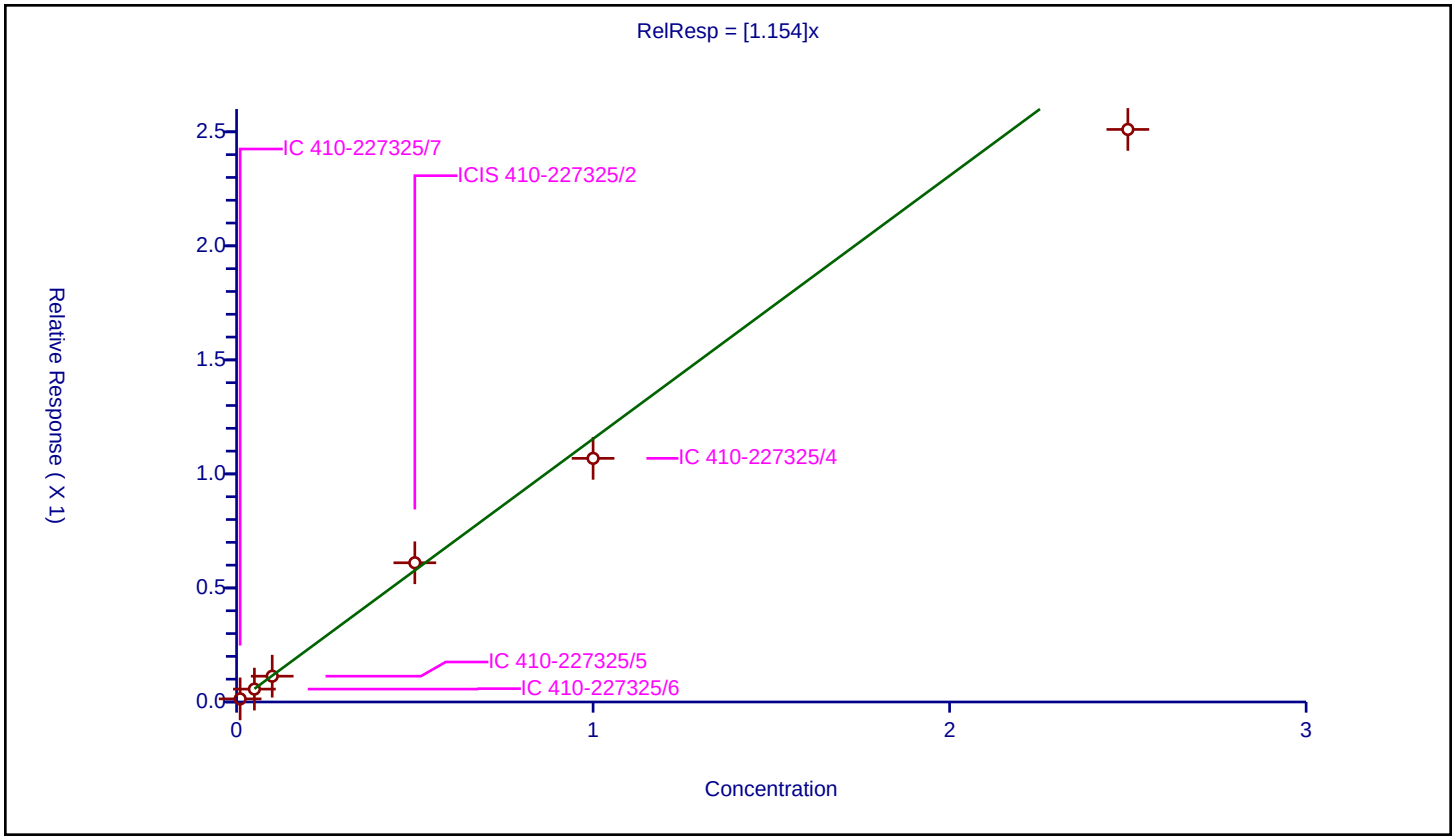
Curve Coefficients

Intercept:	0
Slope:	1.154

Error Coefficients

Standard Error:	382000
Relative Standard Error:	11.0
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.013676	0.25	68952.0	1.367618	Y
2	IC 410-227325/6	0.05	0.056533	0.25	75783.0	1.130663	Y
3	IC 410-227325/5	0.1	0.113096	0.25	74326.0	1.130964	Y
4	ICIS 410-227325/2	0.5	0.610377	0.25	82404.0	1.220754	Y
5	IC 410-227325/4	1.0	1.068292	0.25	76158.0	1.068292	Y
6	IC 410-227325/3	2.5	2.510482	0.25	75894.0	1.004193	Y



Calibration / Perylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

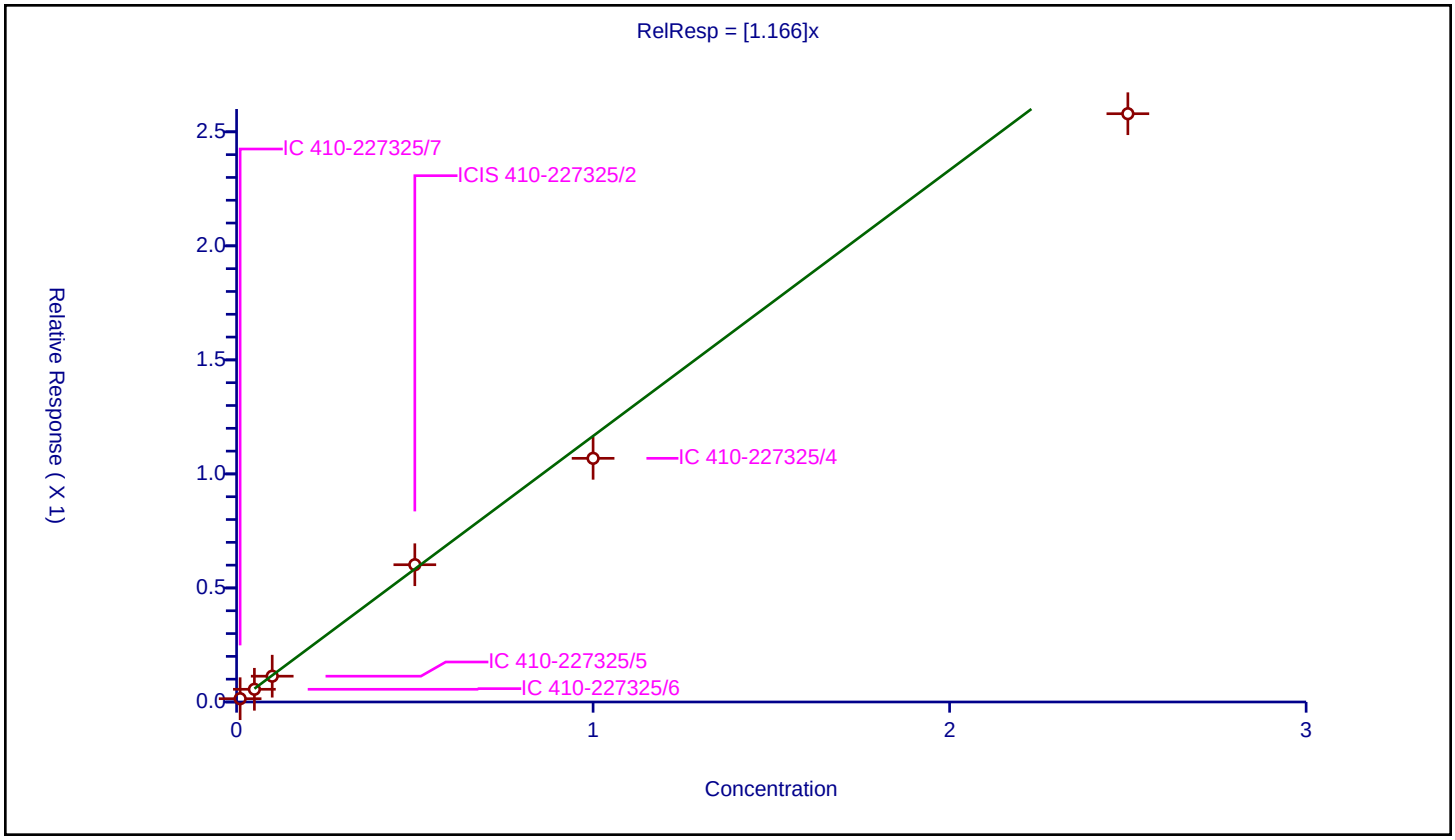
Curve Coefficients

Intercept:	0
Slope:	1.166

Error Coefficients

Standard Error:	390000
Relative Standard Error:	12.9
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.014488	0.25	68952.0	1.448834	Y
2	IC 410-227325/6	0.05	0.055692	0.25	75783.0	1.113838	Y
3	IC 410-227325/5	0.1	0.113069	0.25	74326.0	1.130695	Y
4	ICIS 410-227325/2	0.5	0.601831	0.25	82404.0	1.203661	Y
5	IC 410-227325/4	1.0	1.068361	0.25	76158.0	1.068361	Y
6	IC 410-227325/3	2.5	2.579407	0.25	75894.0	1.031763	Y



Calibration / Indeno[1,2,3-cd]pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

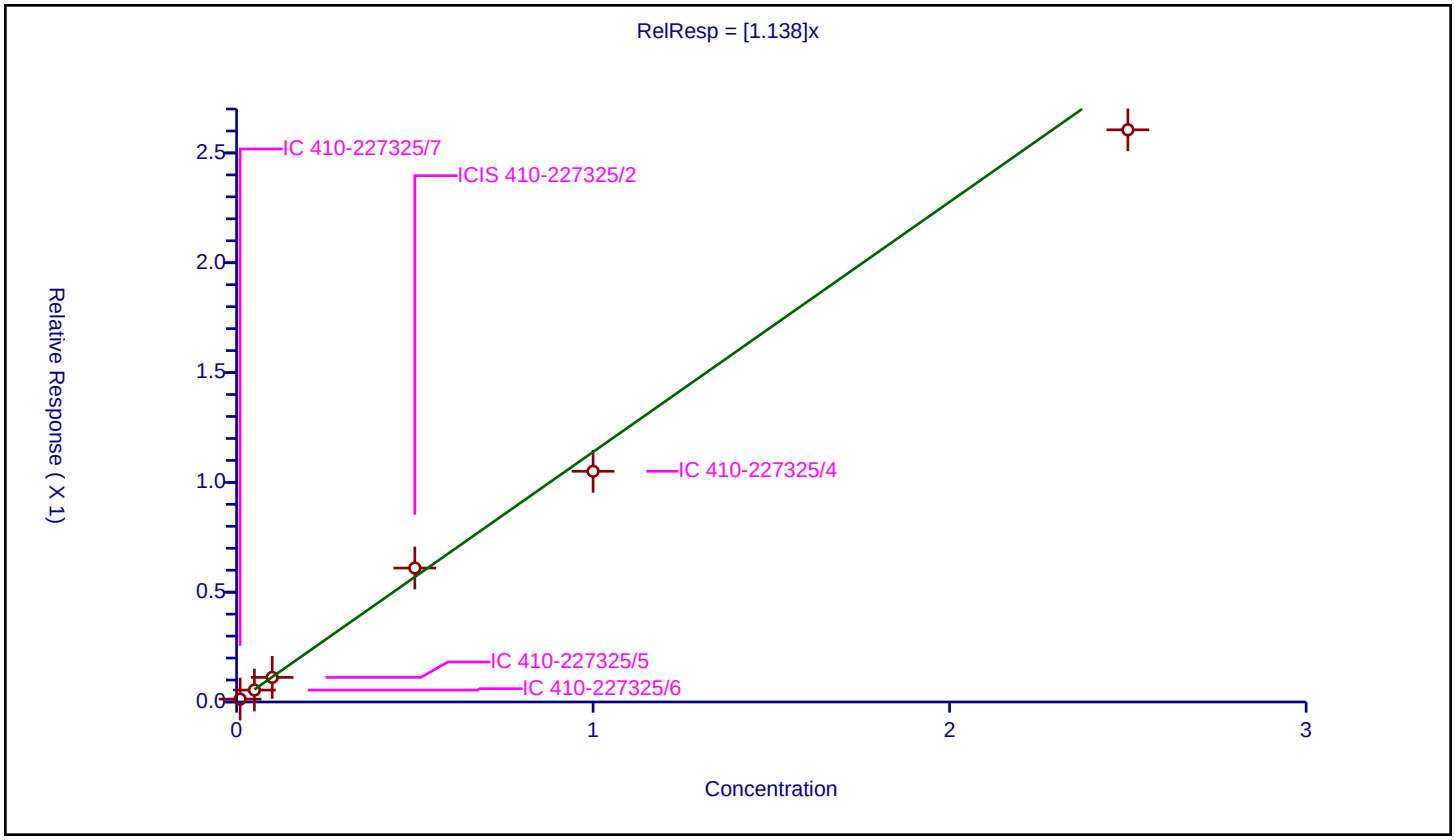
Curve Coefficients

Intercept:	0
Slope:	1.138

Error Coefficients

Standard Error:	392000
Relative Standard Error:	9.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.013121	0.25	68952.0	1.312145	Y
2	IC 410-227325/6	0.05	0.05432	0.25	75783.0	1.086391	Y
3	IC 410-227325/5	0.1	0.11198	0.25	74326.0	1.119797	Y
4	ICIS 410-227325/2	0.5	0.609976	0.25	82404.0	1.219953	Y
5	IC 410-227325/4	1.0	1.05051	0.25	76158.0	1.05051	Y
6	IC 410-227325/3	2.5	2.605292	0.25	75894.0	1.042117	Y



Calibration / Dibenz(a,h)anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

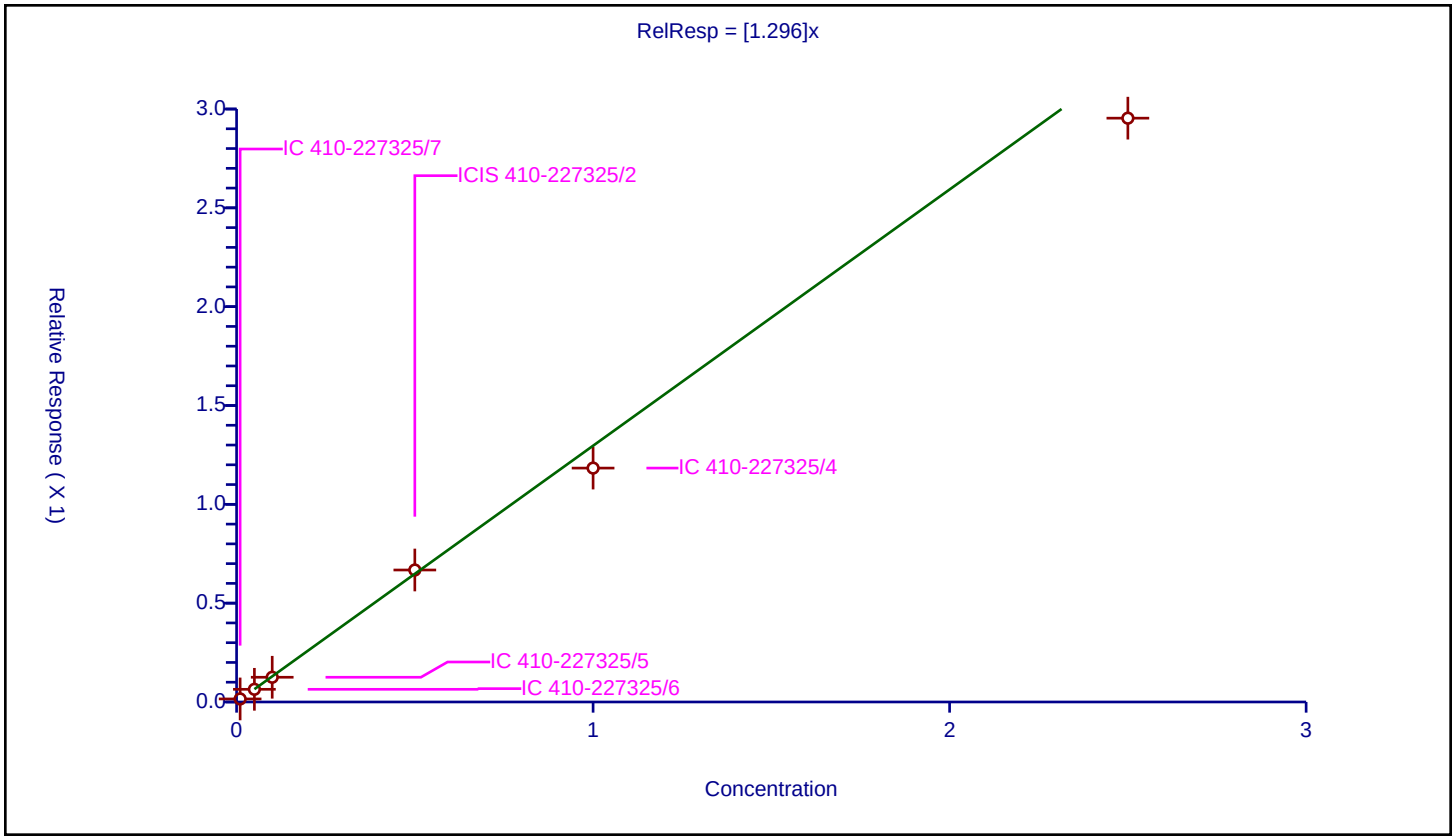
Curve Coefficients

Intercept:	0
Slope:	1.296

Error Coefficients

Standard Error:	444000
Relative Standard Error:	10.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.015446	0.25	68952.0	1.544553	Y
2	IC 410-227325/6	0.05	0.064137	0.25	75783.0	1.282742	Y
3	IC 410-227325/5	0.1	0.125104	0.25	74326.0	1.251043	Y
4	ICIS 410-227325/2	0.5	0.66771	0.25	82404.0	1.335421	Y
5	IC 410-227325/4	1.0	1.183418	0.25	76158.0	1.183418	Y
6	IC 410-227325/3	2.5	2.953682	0.25	75894.0	1.181473	Y



Calibration / Benzo[g,h,i]perylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

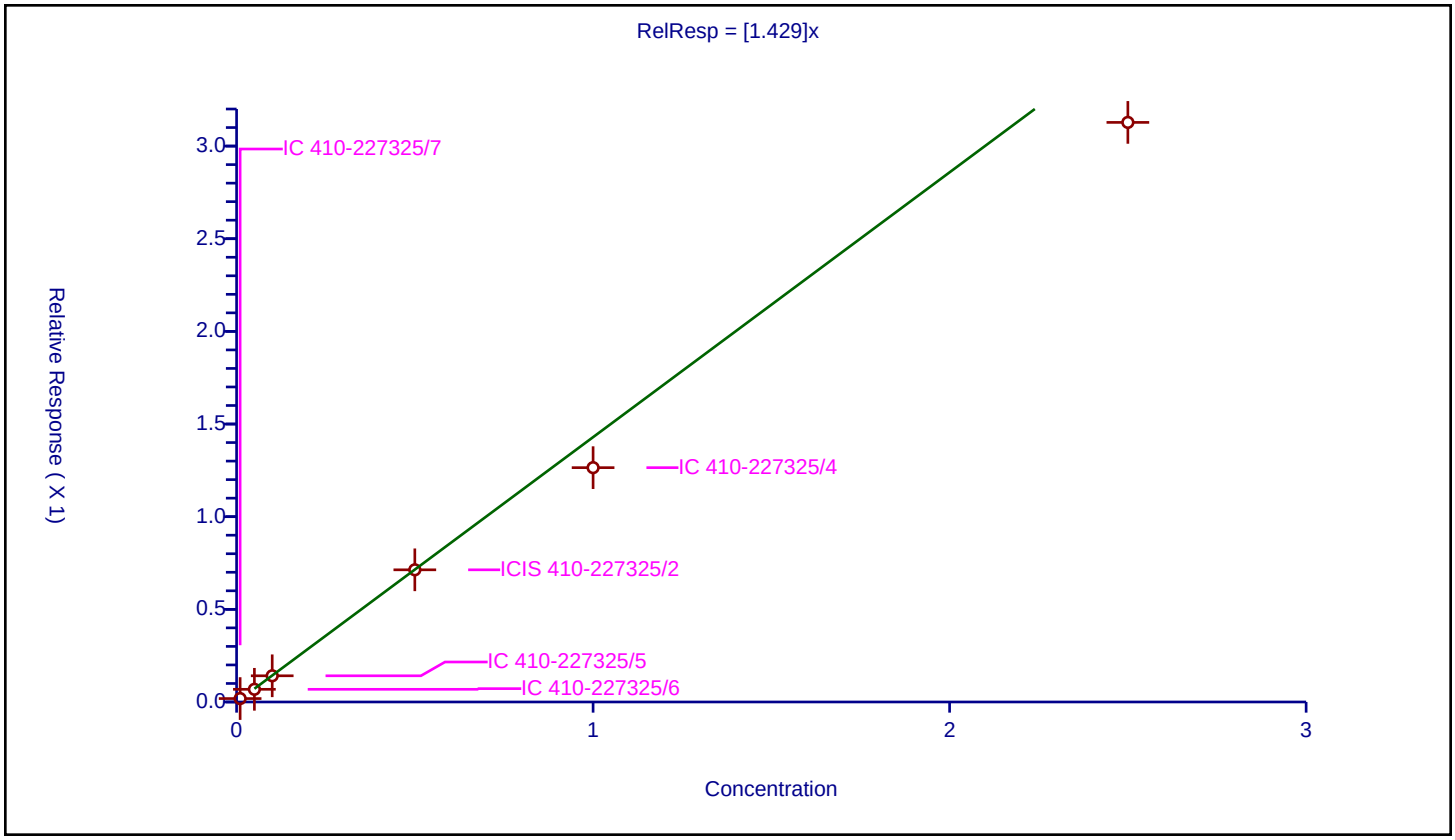
Curve Coefficients

Intercept:	0
Slope:	1.429

Error Coefficients

Standard Error:	471000
Relative Standard Error:	15.3
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.968

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-227325/7	0.01	0.018491	0.25	68952.0	1.849112	Y
2	IC 410-227325/6	0.05	0.068485	0.25	75783.0	1.3697	Y
3	IC 410-227325/5	0.1	0.141397	0.25	74326.0	1.413974	Y
4	ICIS 410-227325/2	0.5	0.713285	0.25	82404.0	1.426569	Y
5	IC 410-227325/4	1.0	1.264578	0.25	76158.0	1.264578	Y
6	IC 410-227325/3	2.5	3.127826	0.25	75894.0	1.251131	Y



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Lab Sample ID: ICV 410-225714/11 Calibration Date: 02/21/2022 10:20

Instrument ID: HP10976 Calib Start Date: 02/21/2022 05:36

GC Column: Rxi-.5SilMS 30m ID: 0.25(mm) Calib End Date: 02/21/2022 08:48

Lab File ID: IB0710.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Qua1		0.6406		1.05	1.00	4.6	30.0
N-Nitrosodimethylamine	Lin1		0.9393		1.43	1.00	43.0*	30.0
Bis(2-chloroethyl)ether	Qua1		0.5883		1.06	1.00	6.5	30.0
Naphthalene	Qua		1.212		1.06	1.00	6.1	30.0
2-Methylnaphthalene	Qua		0.7329		0.967	1.00	-3.3	30.0
1-Methylnaphthalene	Qua1		0.7172		0.982	1.00	-1.8	30.0
Dimethylphthalate	Ave	1.277	1.313		1.03	1.00	2.9	30.0
Acenaphthylene	Ave	1.556	1.610		1.03	1.00	3.5	30.0
Acenaphthene	Qua		1.139		1.08	1.00	8.2	30.0
Dibenzofuran	Qua1		1.823		0.985	1.00	-1.5	30.0
Diethylphthalate	Ave	1.102	1.166		1.06	1.00	5.8	30.0
Fluorene	Ave	1.329	1.295		0.974	1.00	-2.6	30.0
N-Nitrosodiphenylamine	Ave	0.4531	0.6329		1.19	0.850	39.7*	30.0
Hexachlorobenzene	Qua		0.2960		1.05	1.00	5.0	30.0
Phenanthrene	Qua1		1.124		1.03	1.00	2.7	30.0
Anthracene	Ave	1.046	1.085		1.04	1.00	3.7	30.0
Di-n-butyl phthalate	Ave	0.8840	0.8623		0.975	1.00	-2.5	30.0
Fluoranthene	Ave	1.396	1.306		0.935	1.00	-6.5	30.0
Pyrene	Qua1		1.436		0.971	1.00	-2.9	30.0
Butylbenzylphthalate	Ave	0.3251	0.3262		1.00	1.00	0.3	30.0
Bis(2-ethylhexyl) phthalate	Lin1		0.4460		0.885	1.00	-11.5	30.0
Benzo[a]anthracene	Lin2		1.337		1.06	1.00	6.4	30.0
Chrysene	Qua1		1.390		0.960	1.00	-4.0	30.0
Di-n-octyl phthalate	Lin1		0.7472		0.908	1.00	-9.2	30.0
Benzo[b]fluoranthene	Ave	1.324	1.277		0.965	1.00	-3.5	30.0
Benzo[k]fluoranthene	Ave	1.420	1.502		1.06	1.00	5.8	30.0
Benzo[a]pyrene	Ave	1.236	1.242		1.00	1.00	0.4	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.341	1.449		1.08	1.00	8.1	30.0
Dibenz(a,h)anthracene	Ave	1.158	1.215		1.05	1.00	4.9	30.0
Benzo[g,h,i]perylene	Ave	1.277	1.309		1.02	1.00	2.5	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0710.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 21-Feb-2022 10:20:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: 410-0050767-011
Operator ID: jmg00346 Instrument ID: HP10976
Sublist:

Method: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\8270_SIM_HP10976.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 21-Feb-2022 10:50:19 Calib Date: 21-Feb-2022 08:48:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D

Column 1 : Rxi-.5SilMS 30m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1679

First Level Reviewer: gamblerj Date: 21-Feb-2022 10:50:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	3.933	3.959	-0.026	89	49785	1.00	1.05	
2 N-Nitrosodimethylamine	74	4.510	4.510	-0.045	93	73004	1.00	1.43	M
3 Bis(2-chloroethyl)ether	93	7.649	7.649	0.000	94	132509	1.00	1.06	M
* 4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	96	77718	1.00	1.00	
* 5 Naphthalene-d8	136	9.559	9.559	0.000	98	225237	1.00	1.00	
6 Naphthalene	128	9.586	9.586	0.000	99	273059	1.00	1.06	
8 2-Methylnaphthalene	142	10.431	10.431	0.000	93	165069	1.00	0.9673	
10 1-Methylnaphthalene	142	10.562	10.561	0.001	98	161538	1.00	0.9821	
11 Dimethyl phthalate	163	11.355	11.354	0.001	99	191630	1.00	1.03	
12 Acenaphthylene	152	11.572	11.572	0.000	99	234932	1.00	1.03	
* 13 Acenaphthene-d10	164	11.746	11.745	0.001	99	145940	1.00	1.00	
14 Acenaphthene	154	11.789	11.789	0.000	98	166199	1.00	1.08	
15 Dibenzofuran	168	11.997	11.997	0.000	99	266025	1.00	0.9853	
16 Diethyl phthalate	149	12.222	12.222	0.000	98	170186	1.00	1.06	
17 Fluorene	166	12.424	12.424	0.000	99	188988	1.00	0.9744	
18 N-Nitrosodiphenylamine	169	12.548	12.548	0.000	100	143329	0.8500	1.19	
19 Hexachlorobenzene	284	13.133	13.133	0.001	99	78875	1.00	1.05	
* 20 Phenanthrene-d10	188	13.616	13.616	0.000	100	266425	1.00	1.00	
21 Phenanthrene	178	13.638	13.638	0.000	99	299563	1.00	1.03	
22 Anthracene	178	13.706	13.706	0.000	100	289073	1.00	1.04	
23 Di-n-butyl phthalate	149	14.262	14.262	0.000	100	229735	1.00	0.9755	
25 Fluoranthene	202	15.141	15.128	0.013	99	347864	1.00	0.9352	
26 Pyrene	202	15.421	15.421	0.000	99	364257	1.00	0.9715	
27 Butyl benzyl phthalate	149	16.140	16.140	0.000	100	82730	1.00	1.00	
28 Bis(2-ethylhexyl) phthalate	149	16.829	16.828	0.001	97	113114	1.00	0.8848	
29 Benzo[a]anthracene	228	16.907	16.907	0.000	100	339170	1.00	1.06	
* 30 Chrysene-d12	240	16.922	16.922	0.000	94	253630	1.00	1.00	
31 Chrysene	228	16.962	16.961	0.001	99	352532	1.00	0.9603	
32 Di-n-octyl phthalate	149	17.697	17.689	0.008	100	177447	1.00	0.9084	
33 Benzo[b]fluoranthene	252	18.463	18.463	0.000	100	303249	1.00	0.9646	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
34 Benzo[k]fluoranthene	252	18.510	18.510	0.000	100	356685	1.00	1.06	
37 Benzo[a]pyrene	252	19.018	19.018	0.000	100	294859	1.00	1.00	
* 36 Perylene-d12	264	19.112	19.112	0.000	99	237486	1.00	1.00	
40 Indeno[1,2,3-cd]pyrene	276	21.105	21.105	0.000	97	344231	1.00	1.08	
41 Dibenz(a,h)anthracene	278	21.113	21.112	0.001	100	288634	1.00	1.05	
42 Benzo[g,h,i]perylene	276	21.685	21.685	0.000	100	310796	1.00	1.02	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

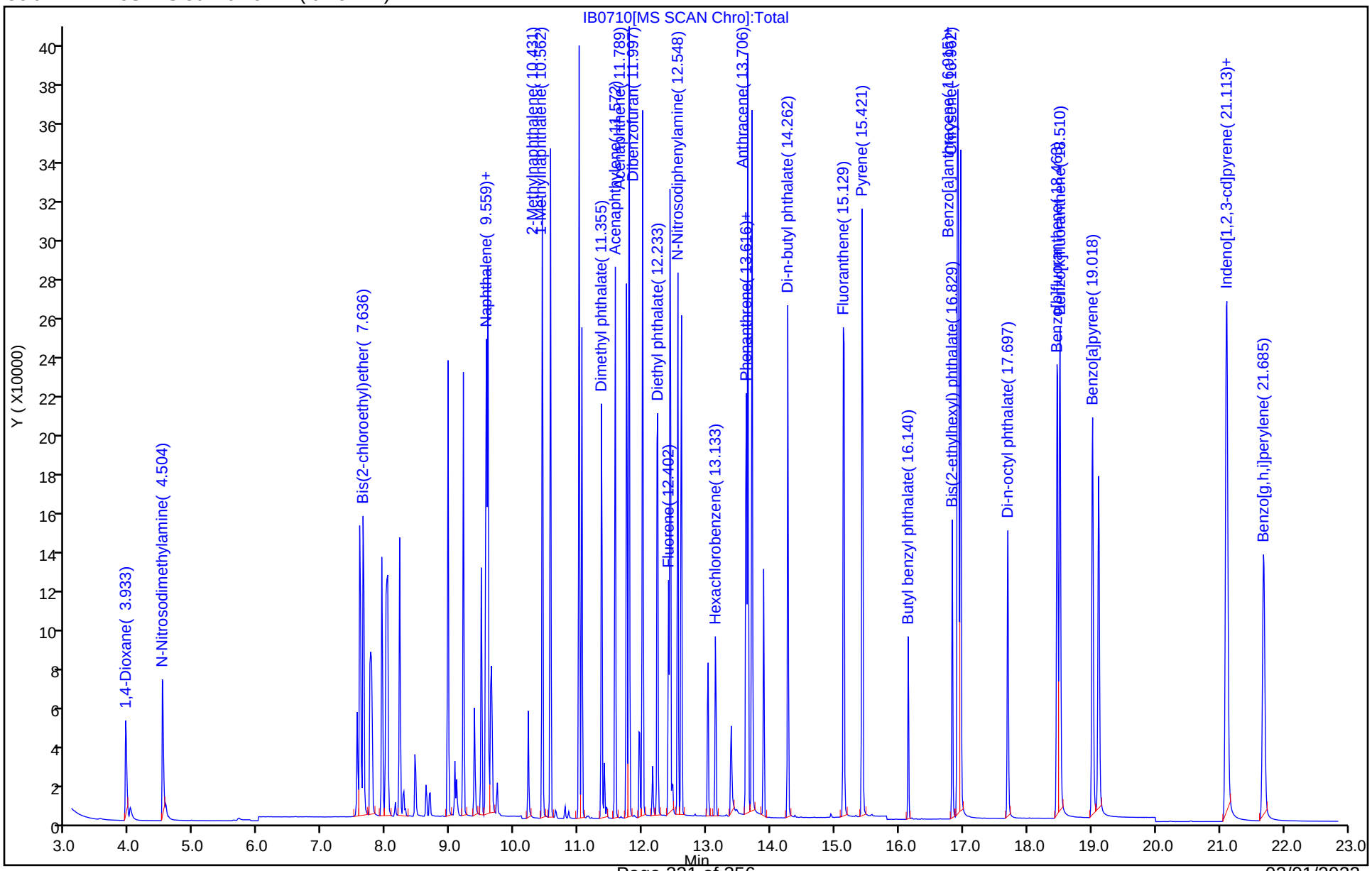
MSS_FVSIM_ICV_00014 Amount Added: 1.00 Units: mL

Report Date: 21-Feb-2022 10:51:16 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0710.D				
Injection Date:	21-Feb-2022 10:20:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	ICV			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

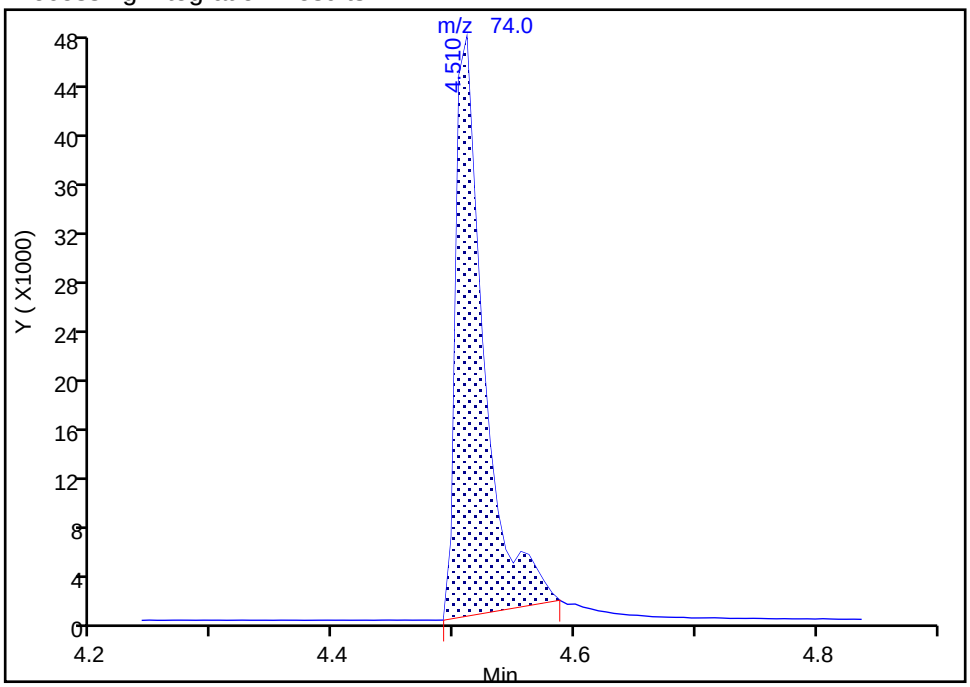
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0710.D				
Injection Date:	21-Feb-2022 10:20:30	Instrument ID:	HP10976		
Lims ID:	ICV				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

2 N-Nitrosodimethylamine, CAS: 62-75-9

Signal: 1

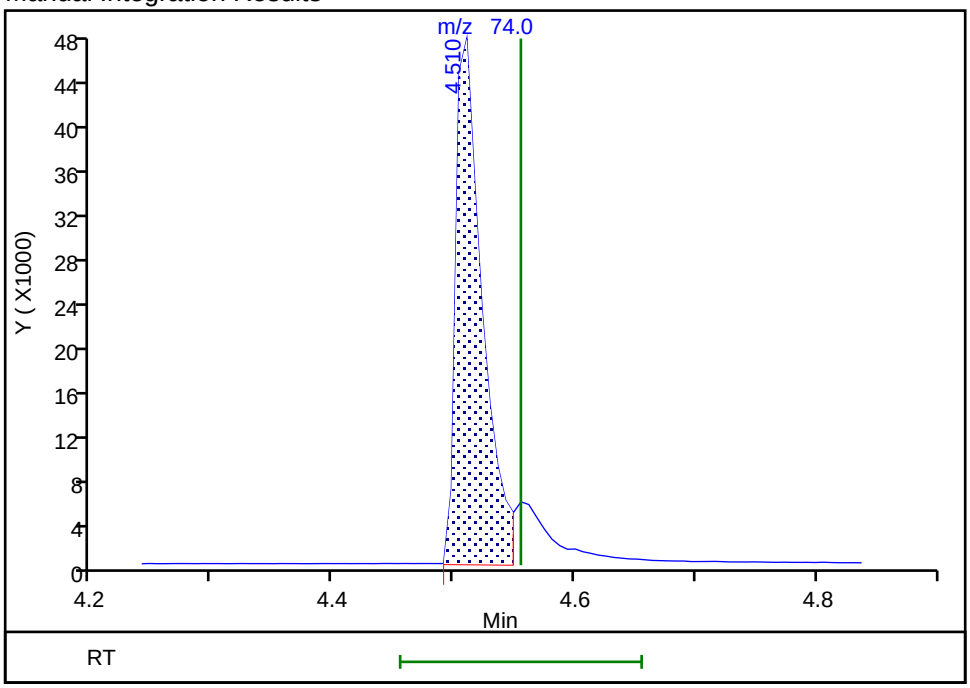
Processing Integration Results

RT: 4.51
Area: 76997
Amount: 1.509216
Amount Units: ug/ml



Manual Integration Results

RT: 4.51
Area: 73004
Amount: 1.430349
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 10:49:58

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

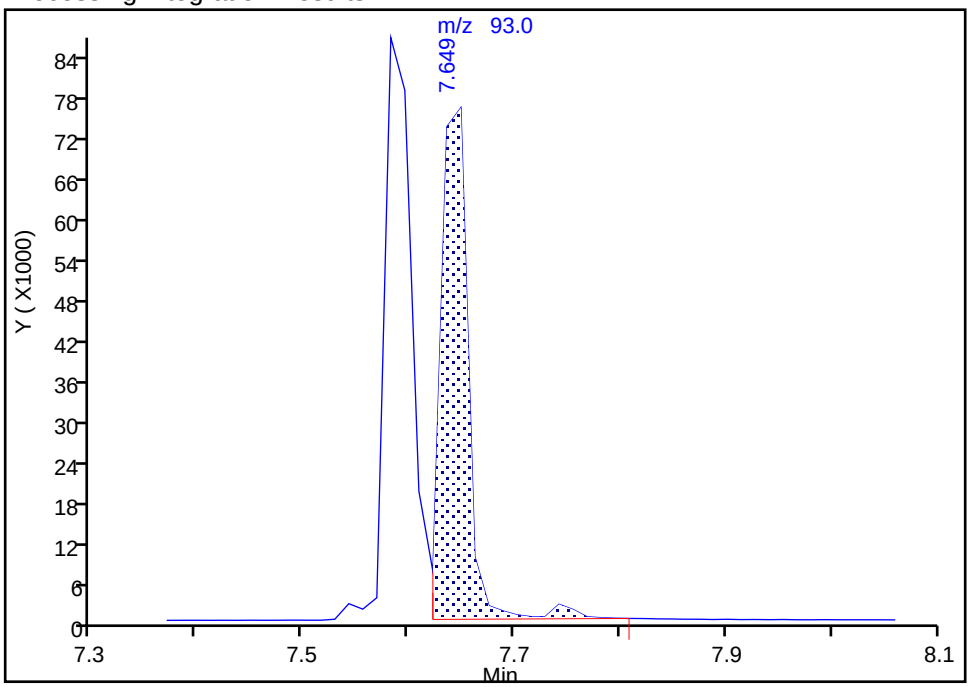
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0710.D				
Injection Date:	21-Feb-2022 10:20:30	Instrument ID:	HP10976		
Lims ID:	ICV				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

3 Bis(2-chloroethyl)ether, CAS: 111-44-4

Signal: 1

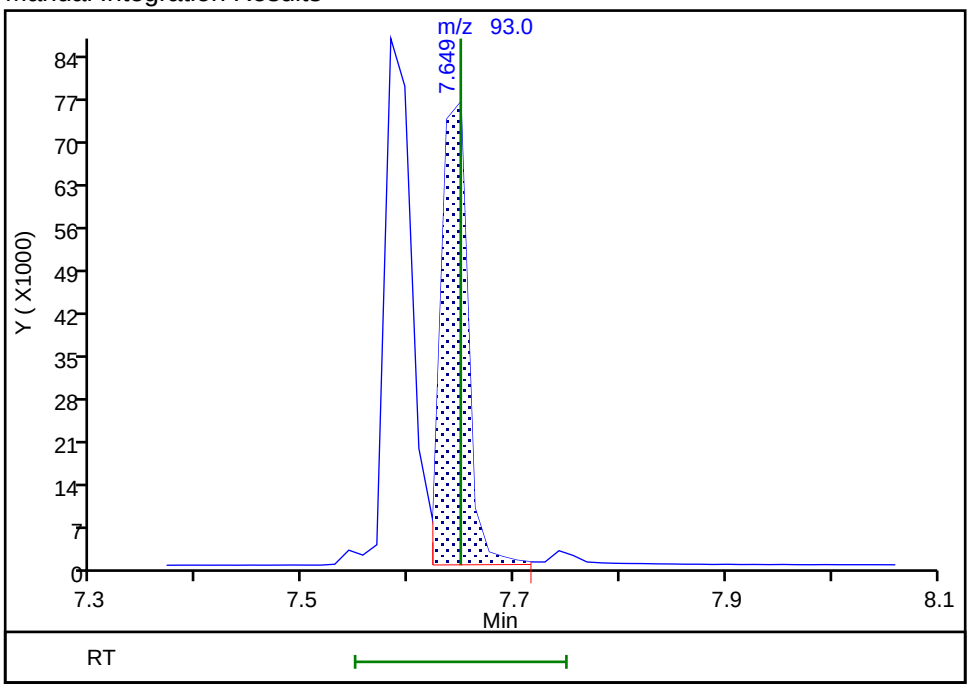
Processing Integration Results

RT: 7.65
Area: 135549
Amount: 1.057700
Amount Units: ug/ml



Manual Integration Results

RT: 7.65
Area: 132509
Amount: 1.064773
Amount Units: ug/ml



Reviewer: gamblerj, 21-Feb-2022 10:50:05

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Lab Sample ID: CCVIS 410-226084/2 Calibration Date: 02/21/2022 19:12

Instrument ID: HP10976 Calib Start Date: 02/21/2022 05:36

GC Column: Rxi-.5SilMS 30m ID: 0.25(mm) Calib End Date: 02/21/2022 08:48

Lab File ID: IB0801.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Qua1		0.6297		1.03	1.00	2.8	20.0
N-Nitrosodimethylamine	Lin1		0.8084		1.23	1.00	22.9*	20.0
Bis(2-chloroethyl)ether	Qua1		0.5628		1.02	1.00	1.7	20.0
Naphthalene	Qua		1.136		0.991	1.00	-0.9	20.0
Quinoline	Ave	0.7440	0.8021		1.08	1.00	7.8	20.0
2-Methylnaphthalene	Qua		0.7643		1.01	1.00	1.0	20.0
1-Methylnaphthalene	Qua1		0.7200		0.986	1.00	-1.4	20.0
Dimethylphthalate	Ave	1.277	1.332		1.04	1.00	4.4	20.0
Acenaphthylene	Ave	1.556	1.635		1.05	1.00	5.1	20.0
Acenaphthene	Qua		1.050		0.994	1.00	-0.6	20.0
Dibenzofuran	Qua1		1.810		0.978	1.00	-2.2	20.0
Diethylphthalate	Ave	1.102	1.179		1.07	1.00	7.0	20.0
Fluorene	Ave	1.329	1.317		0.991	1.00	-0.9	20.0
N-Nitrosodiphenylamine	Ave	0.4531	0.4820		1.06	1.00	6.4	20.0
Hexachlorobenzene	Qua		0.2825		1.00	1.00	0.0	20.0
Phenanthrene	Qua1		1.086		0.990	1.00	-1.0	20.0
Anthracene	Ave	1.046	1.054		1.01	1.00	0.8	20.0
Di-n-butyl phthalate	Ave	0.8840	0.9771		1.11	1.00	10.5	20.0
Fluoranthene	Ave	1.396	1.359		0.974	1.00	-2.6	20.0
Pyrene	Qua1		1.518		1.03	1.00	2.9	20.0
Butylbenzylphthalate	Ave	0.3251	0.4553		1.40	1.00	40.0*	20.0
Bis(2-ethylhexyl) phthalate	Lin1		0.6321		1.25	1.00	25.2*	20.0
Benzo[a]anthracene	Lin2		1.341		1.07	1.00	6.7	20.0
Chrysene	Qua1		1.407		0.972	1.00	-2.8	20.0
Di-n-octyl phthalate	Lin1		1.081		1.31	1.00	31.1*	20.0
Benzo[b]fluoranthene	Ave	1.324	1.326		1.00	1.00	0.2	20.0
Benzo[k]fluoranthene	Ave	1.420	1.426		1.00	1.00	0.5	20.0
Benzo[e]pyrene	Ave	1.338	1.338		1.00	1.00	0.0	20.0
Benzo[a]pyrene	Ave	1.236	1.312		1.06	1.00	6.2	20.0
Perylene	Qua1		1.379		1.05	1.00	4.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.341	1.468		1.09	1.00	9.4	20.0
Dibenz(a,h)anthracene	Ave	1.158	1.295		1.12	1.00	11.9	20.0
Benzo[g,h,i]perylene	Ave	1.277	1.378		1.08	1.00	7.9	20.0
1-Methylnaphthalene-d10 (Surr)	Qua1		0.5657		0.983	1.00	-1.7	20.0
Fluoranthene-d10 (Surr)	Ave	1.281	1.251		0.977	1.00	-2.3	20.0
Benzo(a)pyrene-d12 (Surr)	Ave	0.9407	0.999		1.06	1.00	6.2	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0801.D
Lims ID: CCVIS L5
Client ID:
Sample Type: CCVIS
Inject. Date: 21-Feb-2022 19:12:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS L5
Misc. Info.: 410-0050850-002
Operator ID: art12405 Instrument ID: HP10976
Sublist: chrom-8270_SIM_HP10976*sub3

Method: \\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\8270_SIM_HP10976.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 21-Feb-2022 19:42:29 Calib Date: 21-Feb-2022 08:48:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D

Column 1 : Rxi-.5SilMS 30m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1654

First Level Reviewer: transuea Date: 21-Feb-2022 19:41:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	3.914	3.914	0.000	92	118221	1.00	1.03	
2 N-Nitrosodimethylamine	74	4.491	4.491	0.000	94	151766	1.00	1.23	a
3 Bis(2-chloroethyl)ether	93	7.636	7.636	0.000	92	309011	1.00	1.02	
* 4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	89	187745	1.00	1.00	
* 5 Naphthalene-d8	136	9.546	9.546	0.000	99	549055	1.00	1.00	
6 Naphthalene	128	9.572	9.572	0.000	100	623568	1.00	0.99	
7 Quinoline	129	9.984	9.984	0.000	0	440412	1.00	1.08	
8 2-Methylnaphthalene	142	10.420	10.420	0.000	91	419662	1.00	1.01	
$ 9 1-Methylnaphthalene-d10	152	10.507	10.507	0.000	99	310624	1.00	0.9826	
10 1-Methylnaphthalene	142	10.551	10.551	0.000	96	395314	1.00	0.9861	
11 Dimethyl phthalate	163	11.344	11.344	0.000	98	477826	1.00	1.04	
12 Acenaphthylene	152	11.561	11.561	0.000	99	586355	1.00	1.05	
* 13 Acenaphthene-d10	164	11.735	11.735	0.000	99	358594	1.00	1.00	
14 Acenaphthene	154	11.778	11.778	0.000	98	376441	1.00	0.99	
15 Dibenzofuran	168	11.986	11.986	0.000	99	649018	1.00	0.9781	
16 Diethyl phthalate	149	12.211	12.211	0.000	98	422824	1.00	1.07	
17 Fluorene	166	12.413	12.413	0.000	100	472388	1.00	0.99	
18 N-Nitrosodiphenylamine	169	12.537	12.537	0.000	99	328336	1.00	1.06	
19 Hexachlorobenzene	284	13.133	13.133	0.000	89	192447	1.00	1.00	
* 20 Phenanthrene-d10	188	13.605	13.605	0.000	100	681263	1.00	1.00	
21 Phenanthrene	178	13.627	13.627	0.000	99	739654	1.00	0.99	
22 Anthracene	178	13.695	13.695	0.000	99	718194	1.00	1.01	
23 Di-n-butyl phthalate	149	14.250	14.250	0.000	100	665688	1.00	1.11	
$ 24 Fluoranthene-d10 (Surr)	212	15.104	15.104	0.000	100	852348	1.00	0.9768	
25 Fluoranthene	202	15.129	15.129	0.000	99	926027	1.00	0.9736	
26 Pyrene	202	15.421	15.421	0.000	99	971839	1.00	1.03	
27 Butyl benzyl phthalate	149	16.133	16.133	0.000	100	291452	1.00	1.40	
28 Bis(2-ethylhexyl) phthalate	149	16.813	16.813	0.000	98	404680	1.00	1.25	
29 Benzo[a]anthracene	228	16.899	16.899	0.000	99	858597	1.00	1.07	
* 30 Chrysene-d12	240	16.915	16.915	0.000	95	640171	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Chrysene	228	16.946	16.946	0.000	100	900549	1.00	0.9723	
32 Di-n-octyl phthalate	149	17.681	17.681	0.000	100	653333	1.00	1.31	
33 Benzo[b]fluoranthene	252	18.447	18.447	0.000	100	801209	1.00	1.00	
34 Benzo[k]fluoranthene	252	18.494	18.494	0.000	100	861962	1.00	1.00	
35 Benzo[e]pyrene	252	18.909	18.909	0.000	100	808742	1.00	1.00	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.956	18.956	0.000	99	603786	1.00	1.06	
37 Benzo[a]pyrene	252	19.003	19.003	0.000	99	793158	1.00	1.06	
* 36 Perylene-d12	264	19.096	19.096	0.000	99	604315	1.00	1.00	
39 Perylene	252	19.136	19.136	0.000	99	833500	1.00	1.05	
40 Indeno[1,2,3-cd]pyrene	276	21.084	21.084	0.000	97	886958	1.00	1.09	
41 Dibenz(a,h)anthracene	278	21.091	21.091	0.000	94	782840	1.00	1.12	
42 Benzo[g,h,i]perylene	276	21.664	21.664	0.000	100	832983	1.00	1.08	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

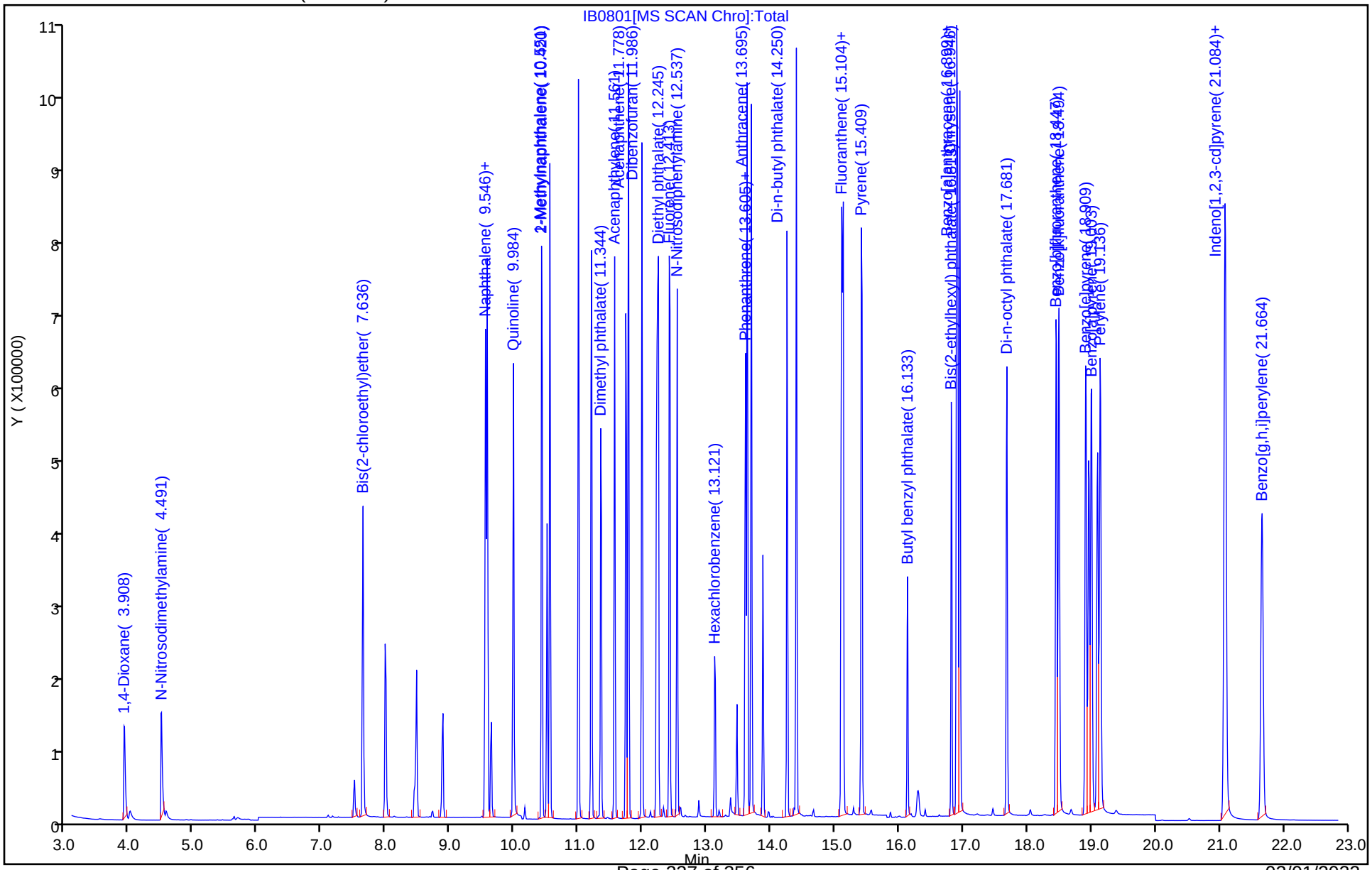
MSS_FVSIM_5_00013 Amount Added: 1.00 Units: mL

Report Date: 21-Feb-2022 19:42:29 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0801.D				
Injection Date:	21-Feb-2022 19:12:30	Instrument ID:	HP10976	Operator ID:	art12405
Lims ID:	CCVIS L5			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

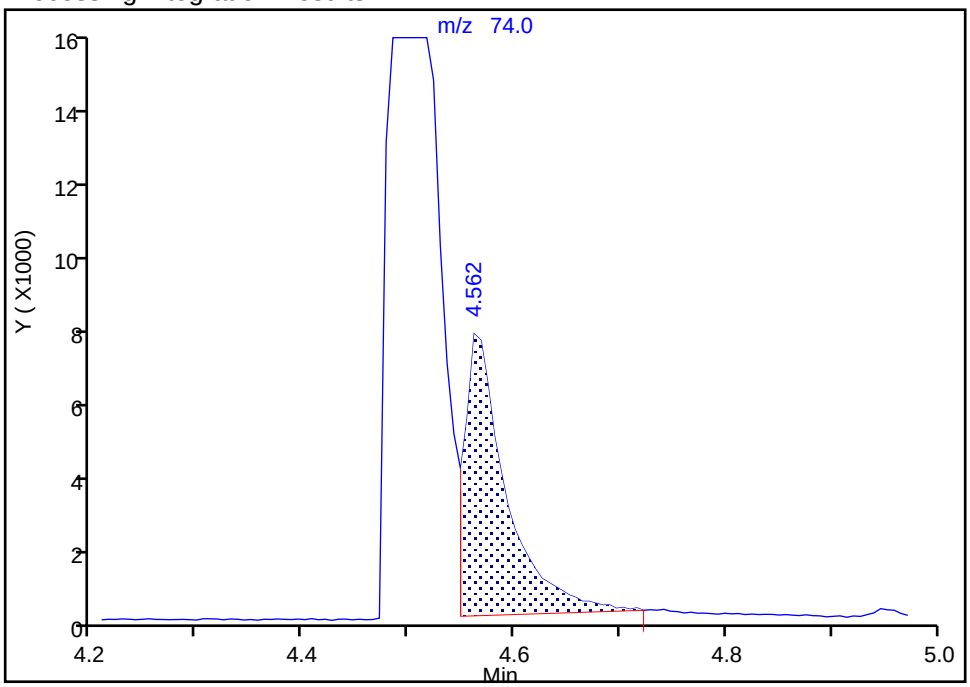
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0801.D				
Injection Date:	21-Feb-2022 19:12:30	Instrument ID:	HP10976		
Lims ID:	CCVIS L5				
Client ID:					
Operator ID:	art12405	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

2 N-Nitrosodimethylamine, CAS: 62-75-9

Signal: 1

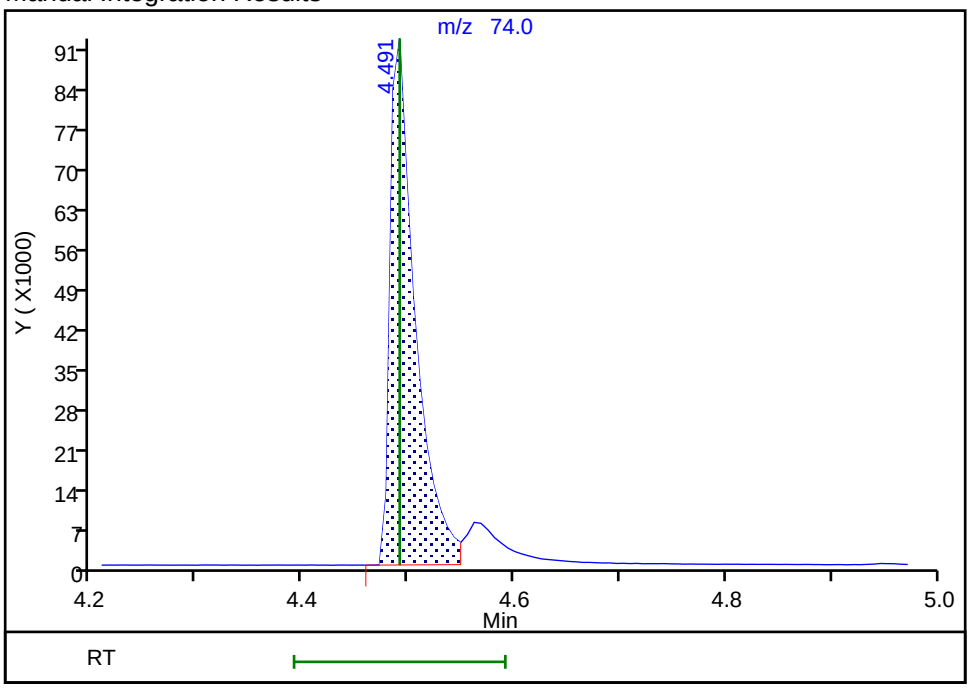
Processing Integration Results

RT: 4.56
Area: 19747
Amount: 0.149872
Amount Units: ug/ml



Manual Integration Results

RT: 4.49
Area: 151766
Amount: 1.229285
Amount Units: ug/ml



Reviewer: transuea, 21-Feb-2022 19:39:35

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Lab Sample ID: CCVIS 410-226145/2 Calibration Date: 02/22/2022 07:45

Instrument ID: HP10976 Calib Start Date: 02/21/2022 05:36

GC Column: Rxi-.5SilMS 30m ID: 0.25(mm) Calib End Date: 02/21/2022 08:48

Lab File ID: IB0871a.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Qua1		0.4976		4.42	5.00	-11.5	20.0
N-Nitrosodimethylamine	Lin1		0.6221		4.76	5.00	-4.7	20.0
Bis(2-chloroethyl)ether	Qua1		0.4585		4.59	5.00	-8.2	20.0
Naphthalene	Qua		1.105		5.78	5.00	15.6	20.0
Quinoline	Ave	0.7440	0.7623		5.12	5.00	2.5	20.0
2-Methylnaphthalene	Qua		0.7505		5.77	5.00	15.3	20.0
1-Methylnaphthalene	Qua1		0.7157		5.68	5.00	13.6	20.0
Dimethylphthalate	Ave	1.277	1.421		5.56	5.00	11.3	20.0
Acenaphthylene	Ave	1.556	1.739		5.59	5.00	11.8	20.0
Acenaphthene	Qua		1.033		5.73	5.00	14.5	20.0
Dibenzofuran	Qua1		1.885		6.15	5.00	23.0*	20.0
Diethylphthalate	Ave	1.102	1.264		5.74	5.00	14.7	20.0
Fluorene	Ave	1.329	1.378		5.18	5.00	3.7	20.0
N-Nitrosodiphenylamine	Ave	0.4531	0.4116		4.54	5.00	-9.2	20.0
Hexachlorobenzene	Qua		0.2728		5.46	5.00	9.3	20.0
Phenanthrene	Qua1		1.090		5.88	5.00	17.7	20.0
Anthracene	Ave	1.046	1.079		5.16	5.00	3.1	20.0
Di-n-butyl phthalate	Ave	0.8840	1.030		5.82	5.00	16.5	20.0
Fluoranthene	Ave	1.396	1.403		5.03	5.00	0.5	20.0
Pyrene	Qua1		1.433		5.68	5.00	13.5	20.0
Butylbenzylphthalate	Ave	0.3251	0.4376		6.73	5.00	34.6*	20.0
Bis(2-ethylhexyl) phthalate	Lin1		0.6343		6.26	5.00	25.1*	20.0
Benzo[a]anthracene	Lin2		1.362		5.44	5.00	8.9	20.0
Chrysene	Qua1		1.368		5.49	5.00	9.8	20.0
Di-n-octyl phthalate	Lin1		1.044		6.30	5.00	26.0*	20.0
Benzo[b]fluoranthene	Ave	1.324	1.201		4.54	5.00	-9.3	20.0
Benzo[k]fluoranthene	Ave	1.420	1.345		4.74	5.00	-5.3	20.0
Benzo[e]pyrene	Ave	1.338	1.213		4.53	5.00	-9.3	20.0
Benzo[a]pyrene	Ave	1.236	1.195		4.83	5.00	-3.3	20.0
Perylene	Qua1		1.234		5.48	5.00	9.7	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.341	1.338		4.99	5.00	-0.2	20.0
Dibenz(a,h)anthracene	Ave	1.158	1.185		5.11	5.00	2.3	20.0
Benzo[g,h,i]perylene	Ave	1.277	1.245		4.87	5.00	-2.5	20.0
1-Methylnaphthalene-d10 (Surr)	Qua1		0.5619		5.61	5.00	12.3	20.0
Fluoranthene-d10 (Surr)	Ave	1.281	1.308		5.10	5.00	2.1	20.0
Benzo(a)pyrene-d12 (Surr)	Ave	0.9407	0.9931		5.28	5.00	5.6	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0871a.D
Lims ID: CCVIS 6
Client ID:
Sample Type: CCVIS
Inject. Date: 22-Feb-2022 07:45:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS L5
Misc. Info.: 410-0050858-002
Operator ID: jmg00346 Instrument ID: HP10976
Sublist: chrom-8270_SIM_HP10976*sub3

Method: \\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 22-Feb-2022 08:18:58 Calib Date: 21-Feb-2022 08:48:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D

Column 1 : Rxi-.5SilMS 30m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: gamblerj Date: 22-Feb-2022 08:18:53

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 1,4-Dioxane	88	3.863	3.863	0.000	95	352318	5.00	4.42	
	2 N-Nitrosodimethylamine	74	4.459	4.459	0.000	92	440509	5.00	4.76	
	3 Bis(2-chloroethyl)ether	93	7.649	7.649	0.000	96	1066204	5.00	4.59	
*	4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	96	141615	1.00	1.00	
*	5 Naphthalene-d8	136	9.559	9.559	0.000	98	465115	1.00	1.00	
	6 Naphthalene	128	9.586	9.586	0.000	99	2570322	5.00	5.78	
	7 Quinoline	129	9.997	9.997	0.000	0	1772765	5.00	5.12	
	8 2-Methylnaphthalene	142	10.442	10.442	0.000	99	1745323	5.00	5.77	
$	9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	100	1306701	5.00	5.61	
	10 1-Methylnaphthalene	142	10.562	10.562	0.000	96	1664443	5.00	5.68	
	11 Dimethyl phthalate	163	11.365	11.365	0.000	99	2223322	5.00	5.56	
	12 Acenaphthylene	152	11.572	11.572	0.000	100	2720995	5.00	5.59	
*	13 Acenaphthene-d10	164	11.746	11.746	0.000	98	313018	1.00	1.00	
	14 Acenaphthene	154	11.789	11.789	0.000	98	1616126	5.00	5.73	
	15 Dibenzofuran	168	11.997	11.997	0.000	100	2949565	5.00	6.15	
	16 Diethyl phthalate	149	12.222	12.222	0.000	98	1978536	5.00	5.74	
	17 Fluorene	166	12.425	12.425	0.000	99	2156887	5.00	5.18	
	18 N-Nitrosodiphenylamine	169	12.548	12.548	0.000	100	1334349	5.00	4.54	
	19 Hexachlorobenzene	284	13.133	13.133	0.000	100	884472	5.00	5.46	
*	20 Phenanthrene-d10	188	13.616	13.616	0.000	100	648343	1.00	1.00	
	21 Phenanthrene	178	13.639	13.639	0.000	100	3533150	5.00	5.88	
	22 Anthracene	178	13.706	13.706	0.000	100	3497656	5.00	5.16	
	23 Di-n-butyl phthalate	149	14.262	14.262	0.000	100	3337411	5.00	5.82	
$	24 Fluoranthene-d10 (Surr)	212	15.116	15.116	0.000	99	4238791	5.00	5.10	
	25 Fluoranthene	202	15.129	15.129	0.000	100	4548547	5.00	5.03	
	26 Pyrene	202	15.422	15.422	0.000	100	4722389	5.00	5.68	
	27 Butyl benzyl phthalate	149	16.140	16.140	0.000	100	1442212	5.00	6.73	
	28 Bis(2-ethylhexyl) phthalate	149	16.821	16.821	0.000	98	2090285	5.00	6.26	
	29 Benzo[a]anthracene	228	16.907	16.907	0.000	100	4487077	5.00	5.44	
*	30 Chrysene-d12	240	16.922	16.922	0.000	98	659119	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Chrysene	228	16.954	16.954	0.000	100	4509766	5.00	5.49	
32 Di-n-octyl phthalate	149	17.681	17.681	0.000	100	3611980	5.00	6.30	
33 Benzo[b]fluoranthene	252	18.447	18.447	0.000	100	4154460	5.00	4.54	
34 Benzo[k]fluoranthene	252	18.487	18.487	0.000	100	4650369	5.00	4.74	
35 Benzo[e]pyrene	252	18.901	18.901	0.000	100	4195376	5.00	4.53	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.956	18.956	0.000	100	3434511	5.00	5.28	
37 Benzo[a]pyrene	252	18.995	18.995	0.000	100	4132021	5.00	4.83	
* 36 Perylene-d12	264	19.081	19.081	0.000	100	691684	1.00	1.00	
39 Perylene	252	19.128	19.128	0.000	99	4267059	5.00	5.48	
40 Indeno[1,2,3-cd]pyrene	276	21.063	21.063	0.000	96	4627084	5.00	4.99	
41 Dibenz(a,h)anthracene	278	21.070	21.070	0.000	94	4096543	5.00	5.11	
42 Benzo[g,h,i]perylene	276	21.642	21.642	0.000	98	4304621	5.00	4.87	

QC Flag Legend

Processing Flags

Reagents:

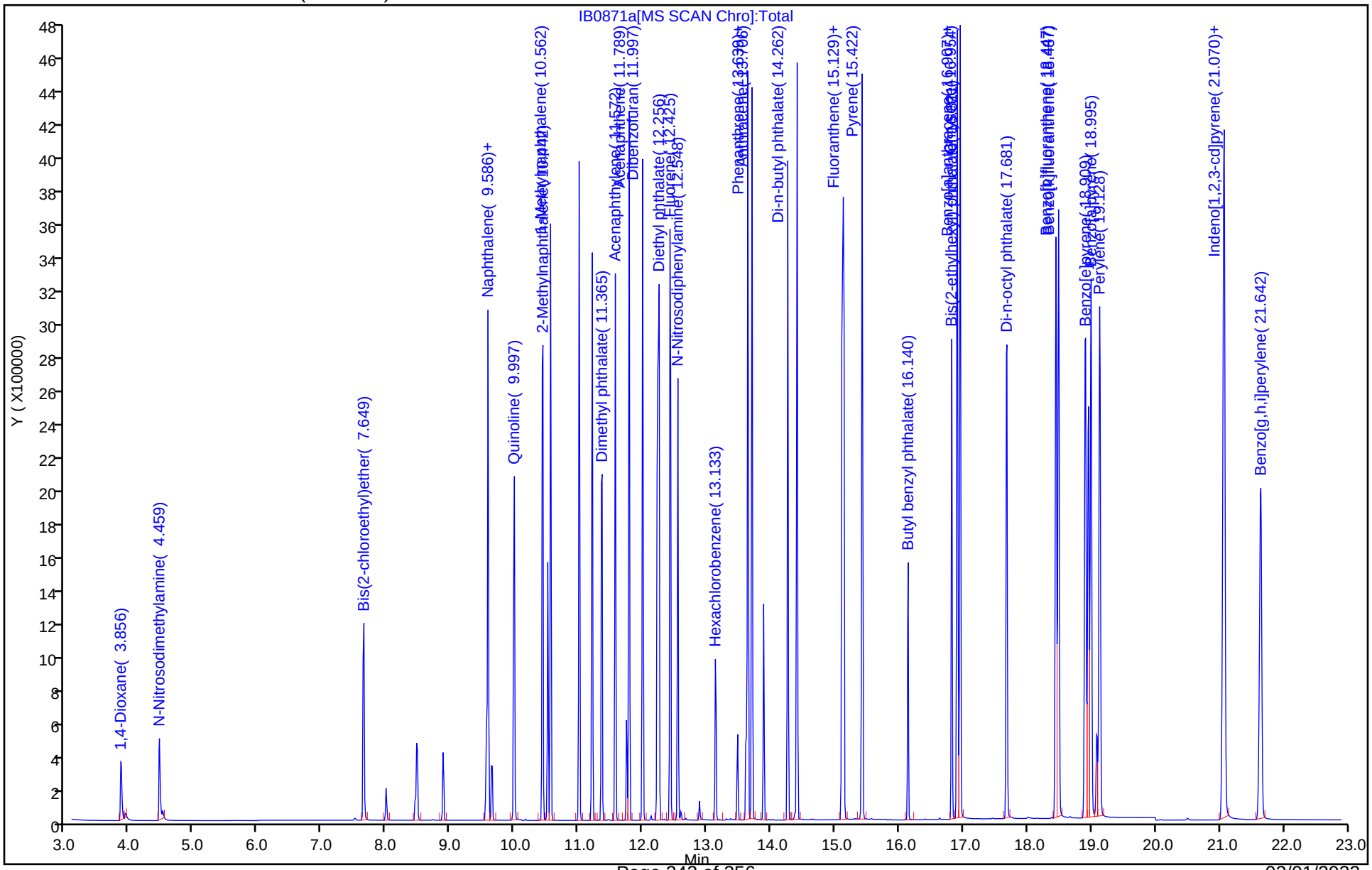
MSS_FVSIM_6_00011 Amount Added: 1.00 Units: mL

Report Date: 22-Feb-2022 08:18:59 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0871a.D				
Injection Date:	22-Feb-2022 07:45:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	CCVIS 6			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Lab Sample ID: ICV 410-227325/9 Calibration Date: 02/24/2022 19:54

Instrument ID: HP23263 Calib Start Date: 02/24/2022 17:14

GC Column: DB-5MS 30m 0.25 ID: 0.25(mm) Calib End Date: 02/24/2022 19:10

Lab File ID: NB0408.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4811	0.4879		0.507	0.500	1.4	30.0
N-Nitrosodimethylamine	Ave	0.4159	0.5312		0.639	0.500	27.7	30.0
Bis(2-chloroethyl)ether	Ave	0.2029	0.3127		0.771	0.500	54.1*	30.0
Naphthalene	Ave	0.9409	0.9723		0.517	0.500	3.3	30.0
2-Methylnaphthalene	Ave	0.5981	0.7081		0.592	0.500	18.4	30.0
1-Methylnaphthalene	Lin2		0.6661		0.598	0.500	19.7	30.0
Dimethylphthalate	Ave	1.338	1.393		0.520	0.500	4.1	30.0
Acenaphthylene	Ave	1.936	1.892		0.489	0.500	-2.3	30.0
Acenaphthene	Ave	1.154	1.077		0.466	0.500	-6.7	30.0
Dibenzofuran	Ave	1.705	1.720		0.504	0.500	0.9	30.0
Diethylphthalate	Ave	1.297	1.340		0.517	0.500	3.3	30.0
Fluorene	Ave	1.347	1.388		0.515	0.500	3.0	30.0
N-Nitrosodiphenylamine	Lin1		0.6073		0.636	0.425	49.6*	30.0
Hexachlorobenzene	Ave	0.3929	0.3825		0.487	0.500	-2.7	30.0
Phenanthrene	Ave	1.086	1.091		0.502	0.500	0.5	30.0
Anthracene	Ave	1.086	1.092		0.503	0.500	0.6	30.0
Di-n-butyl phthalate	Ave	1.102	1.110		0.503	0.500	0.7	30.0
Fluoranthene	Ave	1.282	1.239		0.483	0.500	-3.3	30.0
Pyrene	Ave	1.481	1.425		0.481	0.500	-3.8	30.0
Butylbenzylphthalate	Ave	0.5304	0.5289		0.499	0.500	-0.3	30.0
Benzo[a]anthracene	Ave	1.219	1.251		0.513	0.500	2.6	30.0
Chrysene	Lin2		1.316		0.514	0.500	2.7	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.6966	0.6484		0.465	0.500	-6.9	30.0
Di-n-octyl phthalate	Ave	0.9946	0.9705		0.488	0.500	-2.4	30.0
Benzo[b]fluoranthene	Ave	1.237	1.220		0.493	0.500	-1.4	30.0
Benzo[k]fluoranthene	Ave	1.318	1.360		0.516	0.500	3.2	30.0
Benzo[a]pyrene	Ave	1.154	1.186		0.514	0.500	2.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.138	1.209		0.531	0.500	6.2	30.0
Dibenz(a,h)anthracene	Ave	1.296	1.273		0.491	0.500	-1.8	30.0
Benzo[g,h,i]perylene	Ave	1.429	1.396		0.488	0.500	-2.3	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0408.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Feb-2022 19:54:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: 410-0051112-009
Operator ID: kel10217 Instrument ID: HP23263
Sublist:

Method: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\8270_SIM_HP23263.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 24-Feb-2022 20:29:24 Calib Date: 24-Feb-2022 19:10:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D

Column 1 : DB-5MS 20m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1641

First Level Reviewer: luttek Date: 24-Feb-2022 20:29:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	1.744	1.749	-0.005	95	20757	0.5000	0.5071	
2 N-Nitrosodimethylamine	74	2.051	2.057	0.000	75	22599	0.5000	0.6387	
3 Bis(2-chloroethyl)ether	93	4.267	4.267	0.000	84	44539	0.5000	0.7706	M
* 4 1,4-Dichlorobenzene-d4	152	4.517	4.517	0.000	87	21270	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	71226	0.2500	0.2500	
6 Naphthalene	128	5.729	5.729	-0.001	86	138512	0.5000	0.5167	M
8 2-Methylnaphthalene	142	6.387	6.387	0.000	99	100871	0.5000	0.5920	M
10 1-Methylnaphthalene	142	6.477	6.477	0.000	98	94894	0.5000	0.5983	M
11 Dimethyl phthalate	163	7.118	7.118	0.000	100	109237	0.5000	0.5205	
12 Acenaphthylene	152	7.238	7.239	-0.001	97	148387	0.5000	0.4887	
* 13 Acenaphthene-d10	164	7.379	7.379	0.000	96	39221	0.2500	0.2500	
14 Acenaphthene	154	7.399	7.399	-0.010	92	84471	0.5000	0.4664	M
15 Dibenzofuran	168	7.569	7.569	0.000	77	134943	0.5000	0.5045	
16 Diethyl phthalate	149	7.787	7.787	0.000	100	105146	0.5000	0.5166	M
17 Fluorene	166	7.895	7.895	0.000	99	108840	0.5000	0.5150	
18 N-Nitrosodiphenylamine	169	8.011	8.011	0.000	97	72088	0.4250	0.6358	M
19 Hexachlorobenzene	284	8.412	8.420	0.000	84	53413	0.5000	0.4867	
* 20 Phenanthrene-d10	188	8.783	8.783	0.000	100	69820	0.2500	0.2500	
21 Phenanthrene	178	8.806	8.814	0.000	100	152331	0.5000	0.5024	
22 Anthracene	178	8.860	8.860	0.000	100	152472	0.5000	0.5029	Ma
23 Di-n-butyl phthalate	149	9.352	9.360	0.000	100	154977	0.5000	0.5035	
25 Fluoranthene	202	9.935	9.950	-0.006	94	173044	0.5000	0.4835	
26 Pyrene	202	10.154	10.154	0.000	94	176891	0.5000	0.4809	
27 Butyl benzyl phthalate	149	10.827	10.827	-0.001	100	65661	0.5000	0.4986	
28 Benzo[a]anthracene	228	11.440	11.448	0.000	100	155288	0.5000	0.5130	
* 29 Chrysene-d12	240	11.455	11.456	-0.001	95	62072	0.2500	0.2500	
30 Chrysene	228	11.478	11.486	-0.008	100	163432	0.5000	0.5137	
31 Bis(2-ethylhexyl) phthalate	149	11.509	11.509	0.000	100	80499	0.5000	0.4654	
32 Di-n-octyl phthalate	149	12.383	12.384	-0.008	100	138947	0.5000	0.4879	
33 Benzo[b]fluoranthene	252	12.867	12.867	0.000	100	174680	0.5000	0.4932	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
34 Benzo[k]fluoranthene	252	12.905	12.905	0.000	100	194719	0.5000	0.5159	
37 Benzo[a]pyrene	252	13.327	13.335	-0.008	100	169817	0.5000	0.5140	
* 38 Perylene-d12	264	13.411	13.419	-0.008	94	71585	0.2500	0.2500	
40 Indeno[1,2,3-cd]pyrene	276	15.048	15.055	-0.007	93	173106	0.5000	0.5310	
41 Dibenz(a,h)anthracene	278	15.104	15.111	-0.007	93	182313	0.5000	0.4911	
42 Benzo[g,h,i]perylene	276	15.514	15.521	-0.007	93	199816	0.5000	0.4883	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

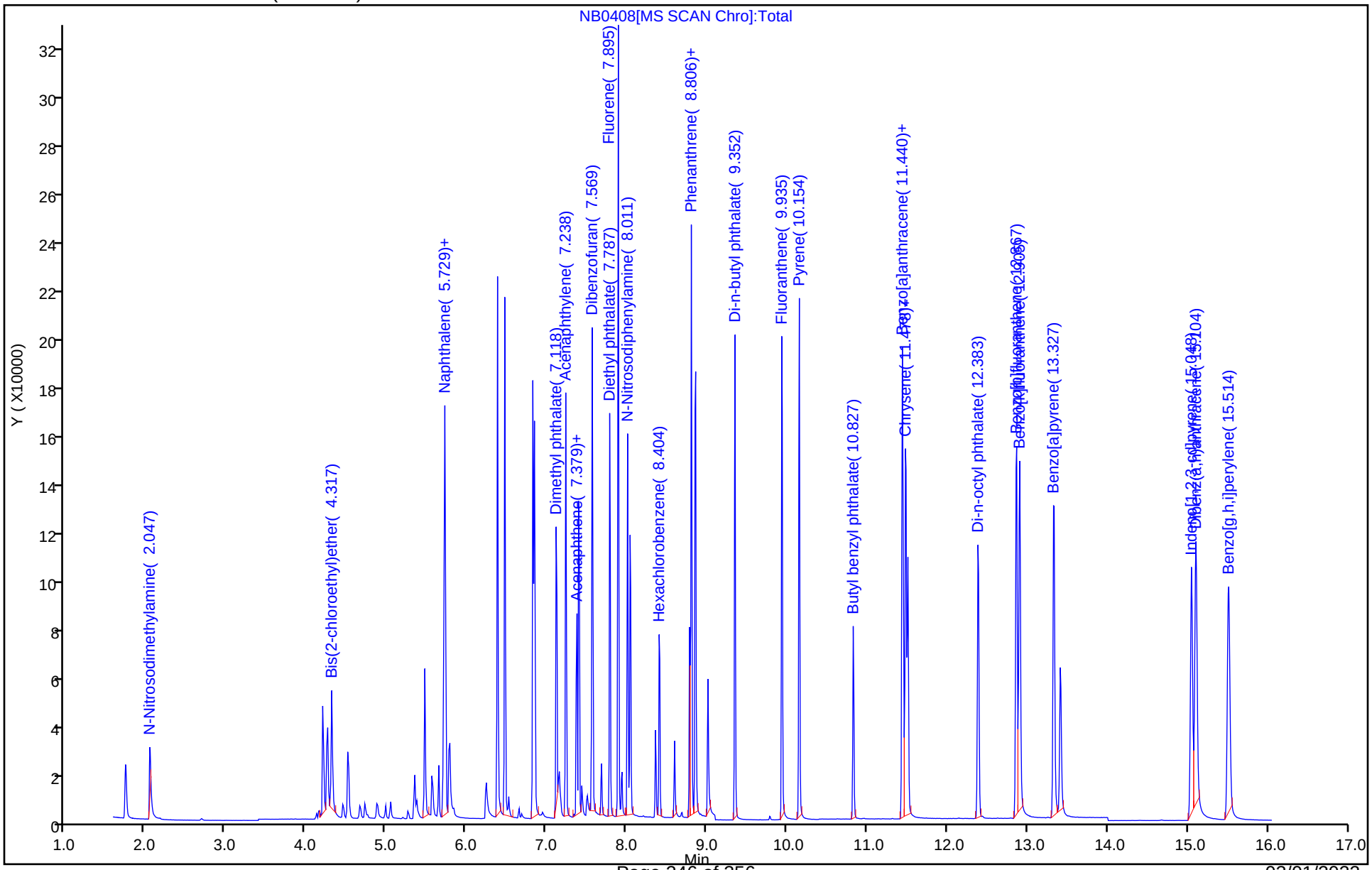
MSS_RVSIM_ICV_00029 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2022 20:29:30 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0408.D				
Injection Date:	24-Feb-2022 19:54:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	ICV			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

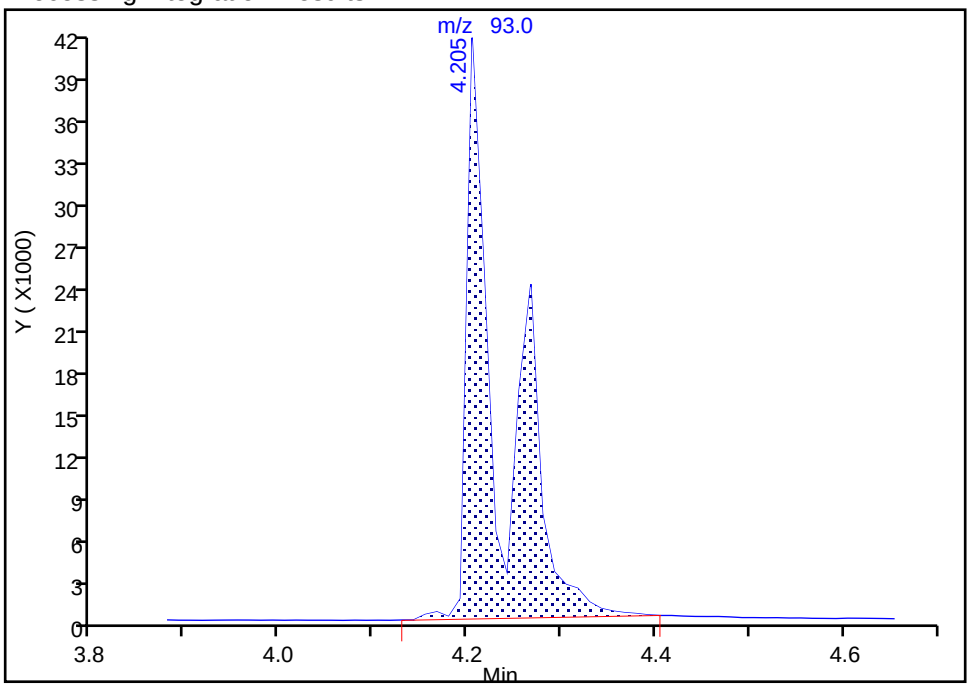
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0408.D				
Injection Date:	24-Feb-2022 19:54:30	Instrument ID:	HP23263		
Lims ID:	ICV				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

3 Bis(2-chloroethyl)ether, CAS: 111-44-4

Signal: 1

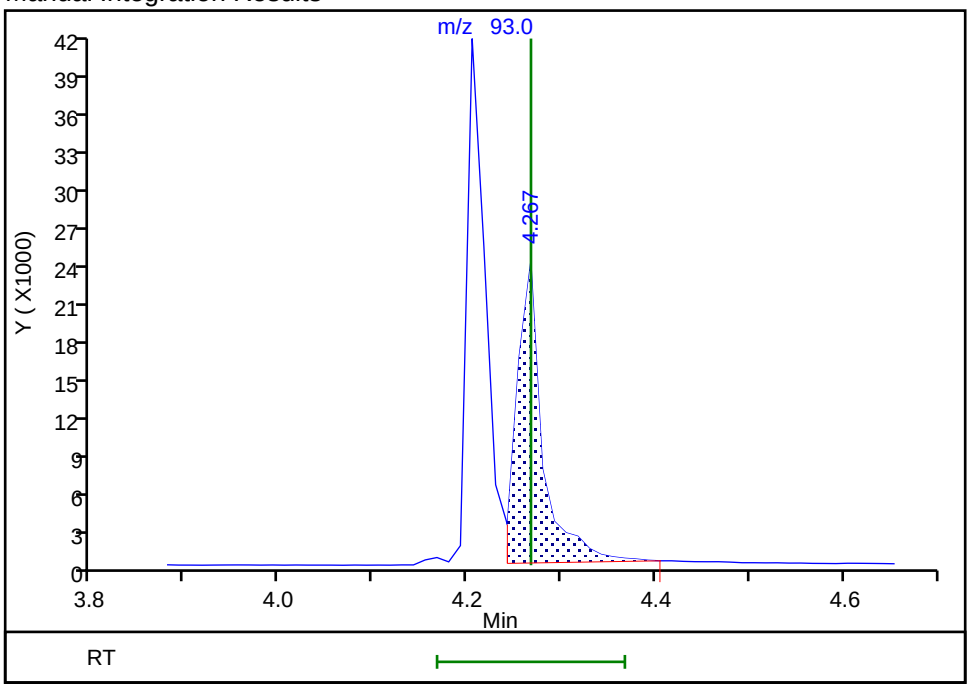
Processing Integration Results

RT: 4.20
Area: 102477
Amount: 1.643325
Amount Units: ug/ml



Manual Integration Results

RT: 4.27
Area: 44539
Amount: 0.770580
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:28:55

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

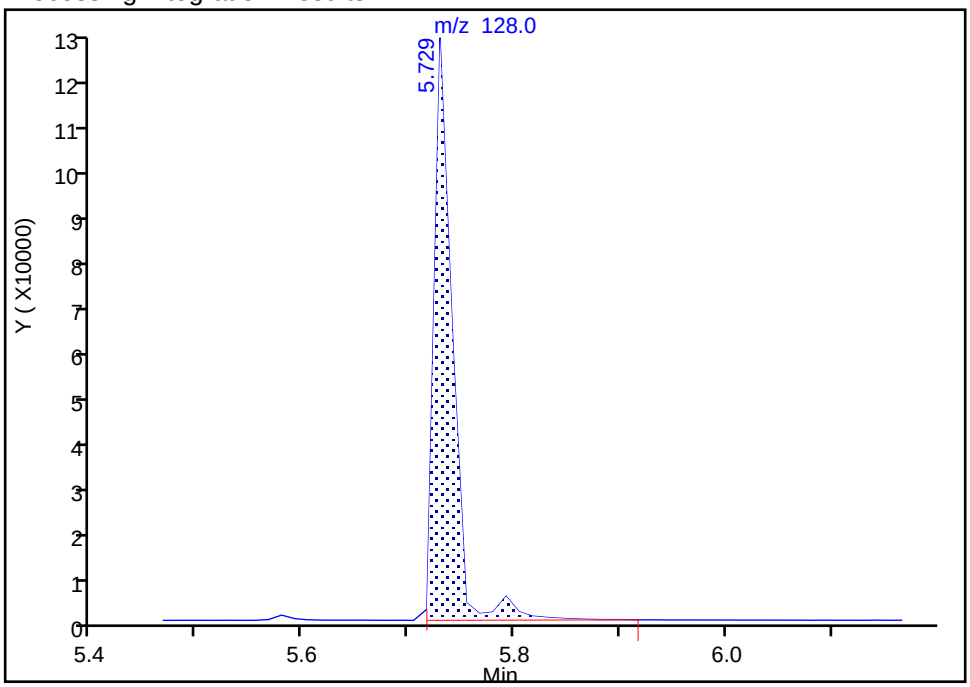
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0408.D				
Injection Date:	24-Feb-2022 19:54:30	Instrument ID:	HP23263		
Lims ID:	ICV				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

6 Naphthalene, CAS: 91-20-3

Signal: 1

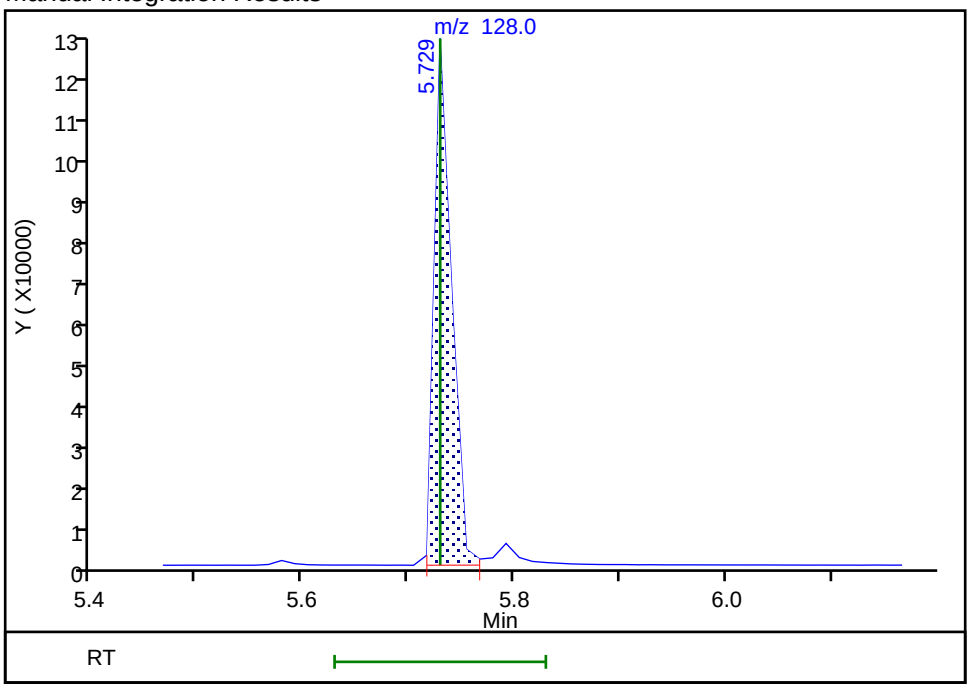
Processing Integration Results

RT: 5.73
Area: 147149
Amount: 0.548907
Amount Units: ug/ml



Manual Integration Results

RT: 5.73
Area: 138512
Amount: 0.516688
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:21:13

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

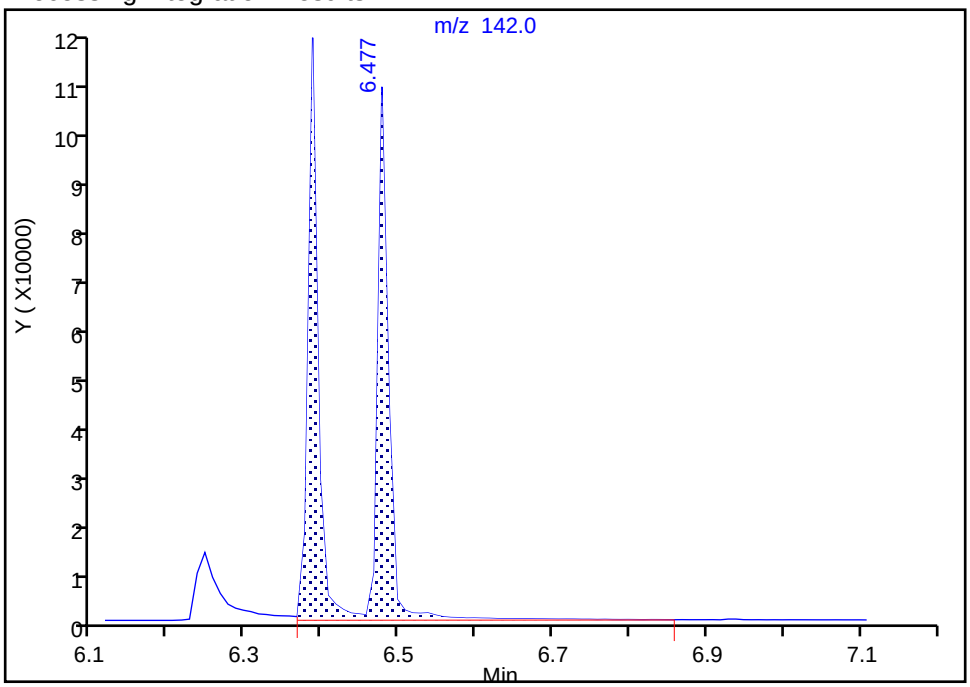
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0408.D				
Injection Date:	24-Feb-2022 19:54:30	Instrument ID:	HP23263		
Lims ID:	ICV				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

8 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

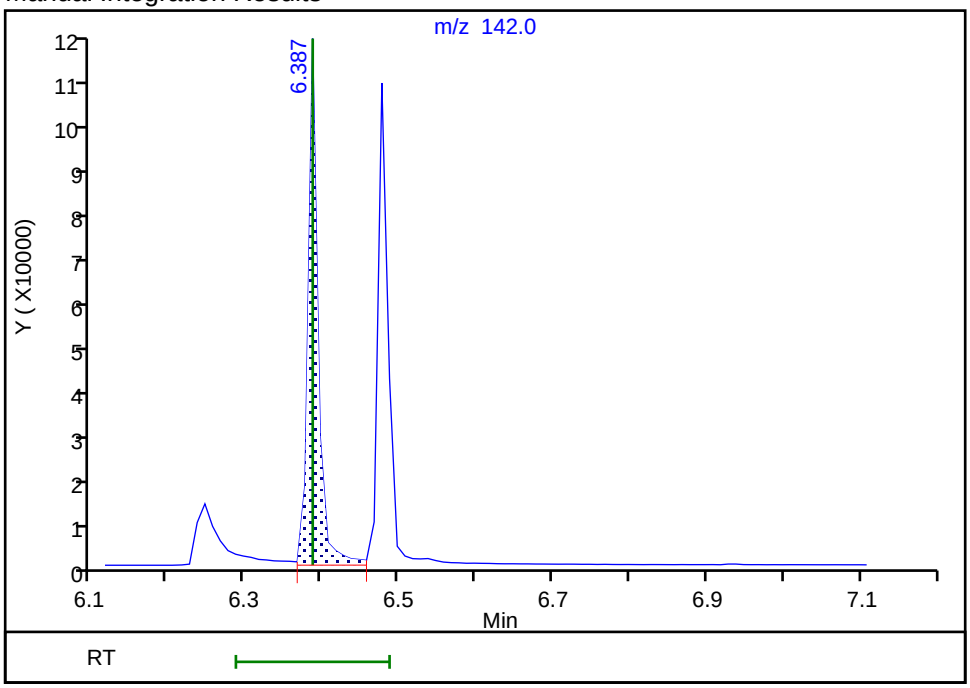
Processing Integration Results

RT: 6.48
Area: 201639
Amount: 1.183298
Amount Units: ug/ml



Manual Integration Results

RT: 6.39
Area: 100871
Amount: 0.591951
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:21:17

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

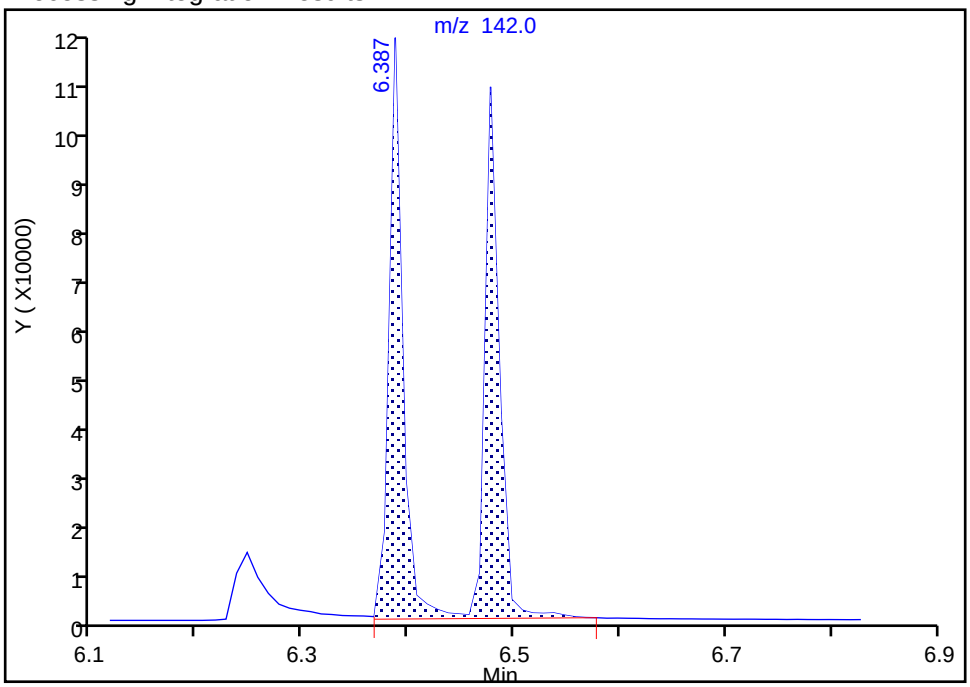
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0408.D				
Injection Date:	24-Feb-2022 19:54:30	Instrument ID:	HP23263		
Lims ID:	ICV				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

10 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

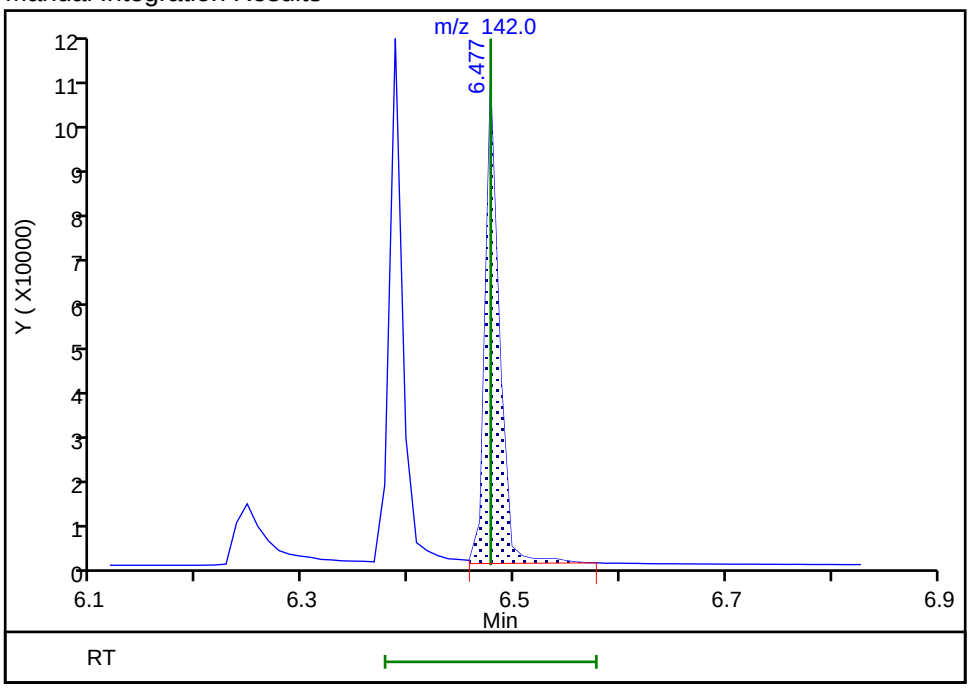
Processing Integration Results

RT: 6.39
Area: 194355
Amount: 1.233626
Amount Units: ug/ml



Manual Integration Results

RT: 6.48
Area: 94894
Amount: 0.598312
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:21:21

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

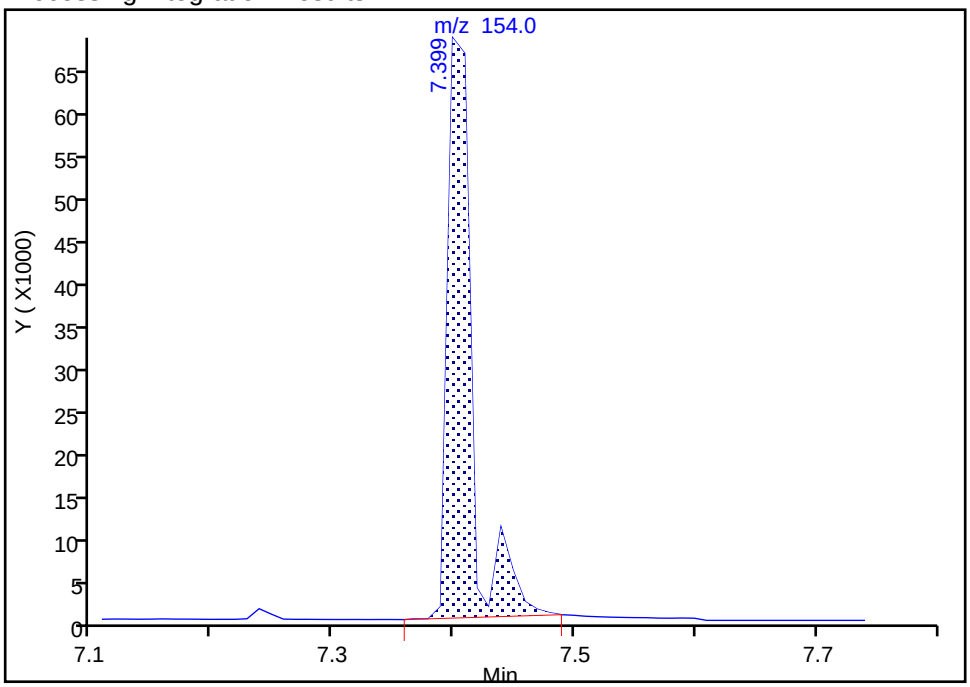
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0408.D				
Injection Date:	24-Feb-2022 19:54:30	Instrument ID:	HP23263		
Lims ID:	ICV				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

14 Acenaphthene, CAS: 83-32-9

Signal: 1

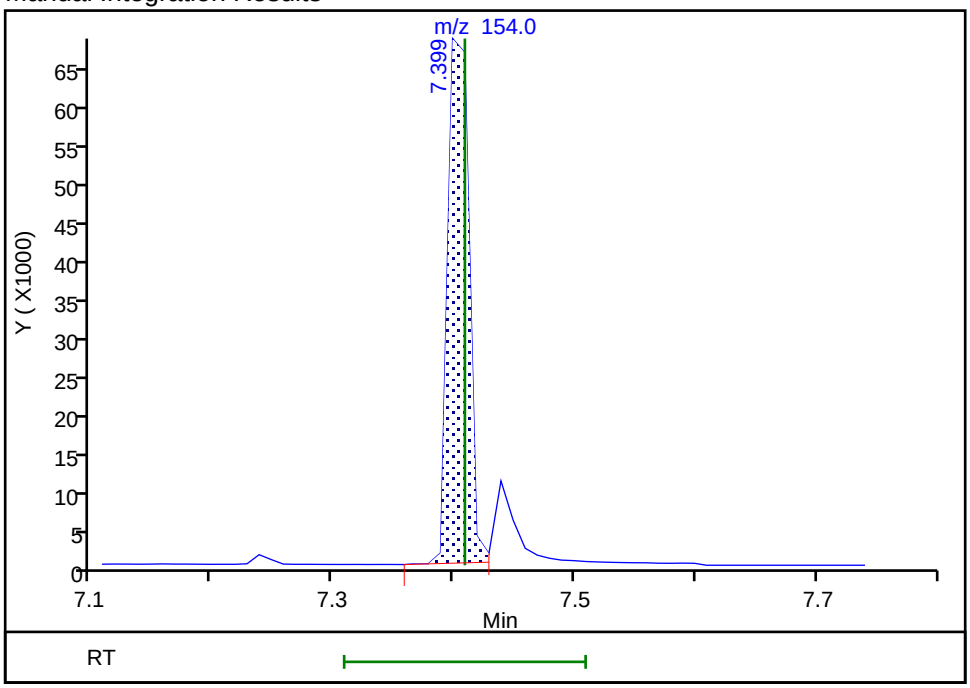
Processing Integration Results

RT: 7.40
Area: 96030
Amount: 0.530233
Amount Units: ug/ml



Manual Integration Results

RT: 7.40
Area: 84471
Amount: 0.466410
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:21:27
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

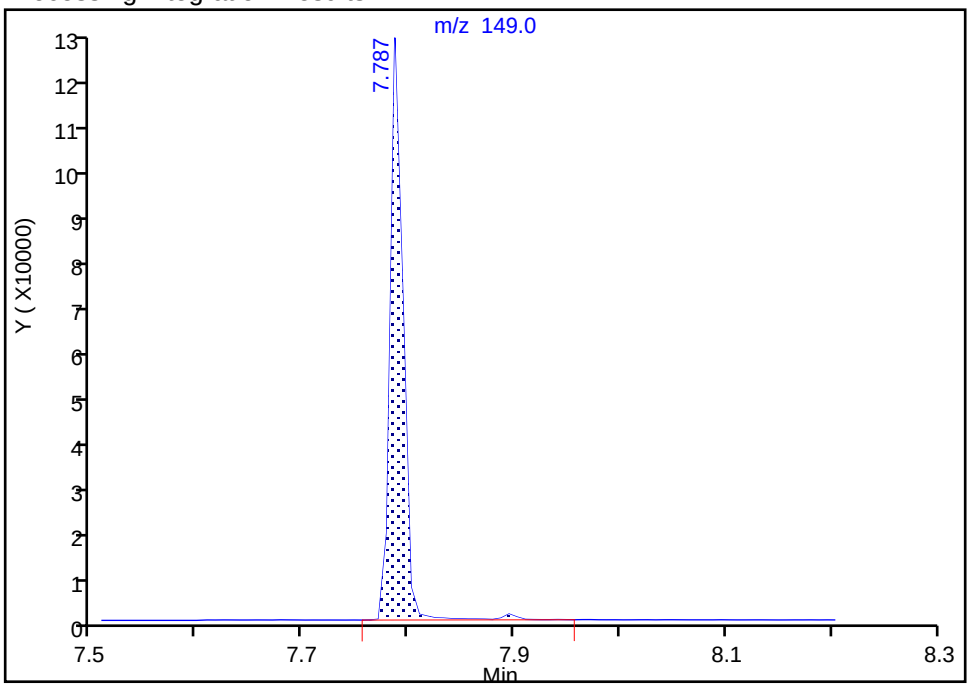
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0408.D				
Injection Date:	24-Feb-2022 19:54:30	Instrument ID:	HP23263		
Lims ID:	ICV				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

16 Diethyl phthalate, CAS: 84-66-2

Signal: 1

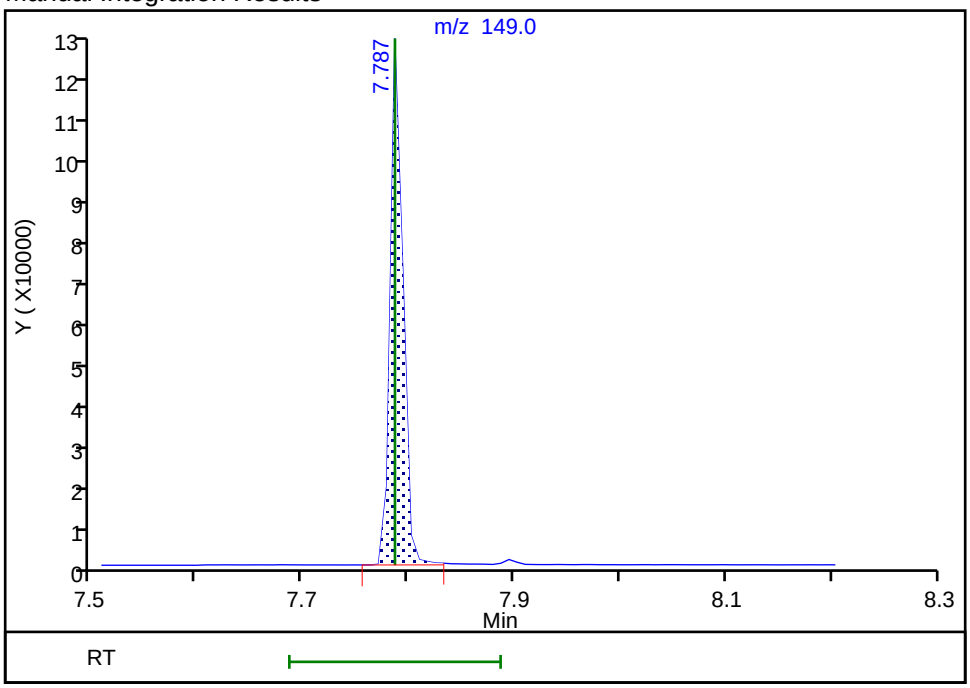
Processing Integration Results

RT: 7.79
Area: 106916
Amount: 0.525347
Amount Units: ug/ml



Manual Integration Results

RT: 7.79
Area: 105146
Amount: 0.516650
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:21:34

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

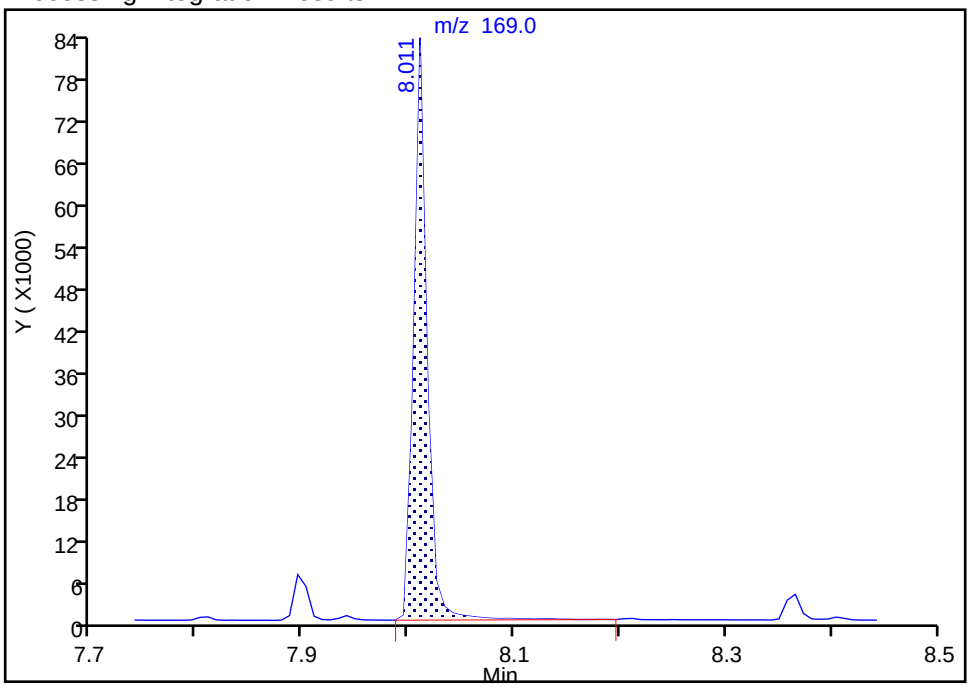
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0408.D				
Injection Date:	24-Feb-2022 19:54:30	Instrument ID:	HP23263		
Lims ID:	ICV				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

18 N-Nitrosodiphenylamine, CAS: 86-30-6

Signal: 1

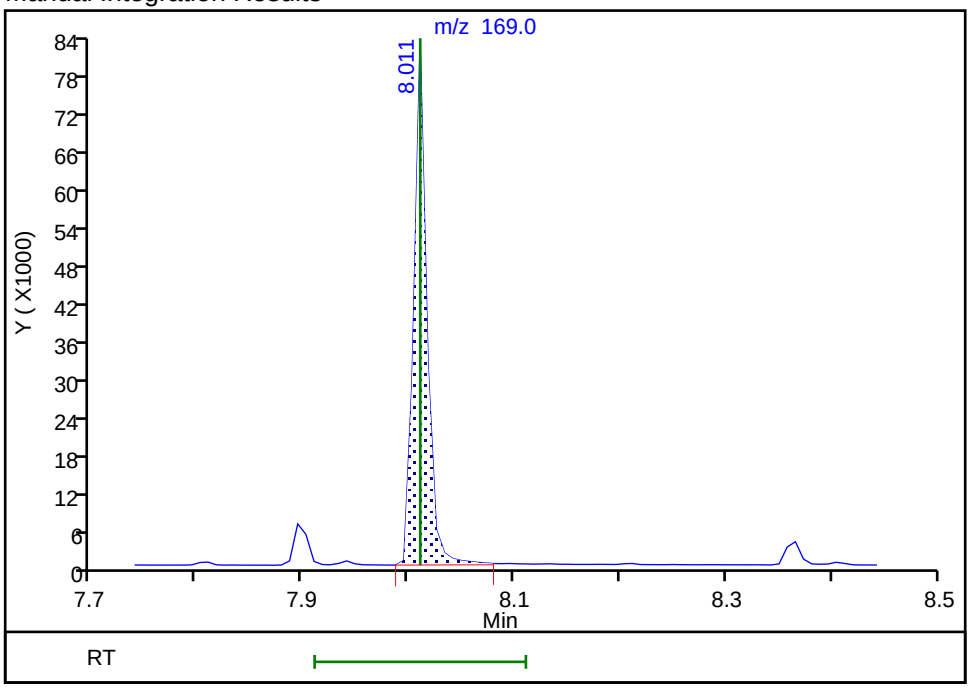
Processing Integration Results

RT: 8.01
Area: 72704
Amount: 0.641273
Amount Units: ug/ml



Manual Integration Results

RT: 8.01
Area: 72088
Amount: 0.635780
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 20:28:12

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

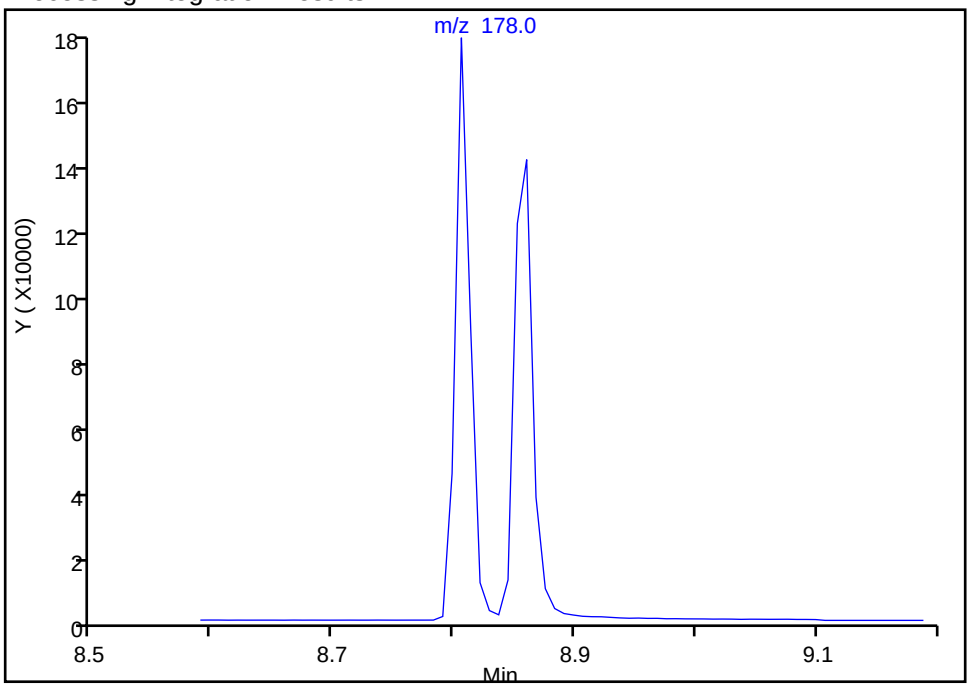
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0408.D				
Injection Date:	24-Feb-2022 19:54:30	Instrument ID:	HP23263		
Lims ID:	ICV				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

22 Anthracene, CAS: 120-12-7

Signal: 1

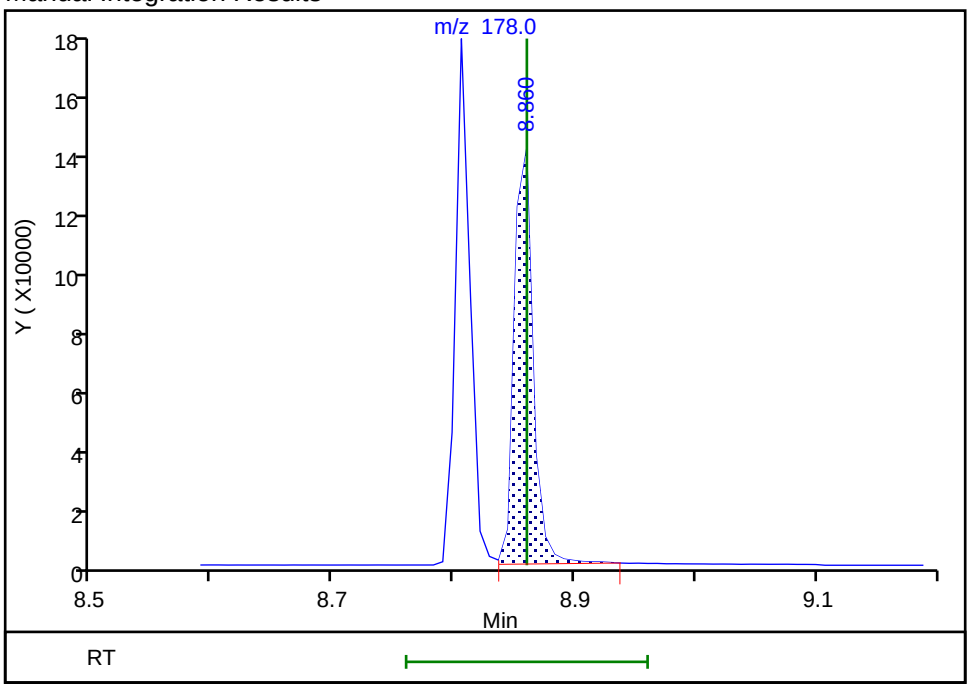
Not Detected
Expected RT: 8.86

Processing Integration Results



RT: 8.86
Area: 152472
Amount: 0.502872
Amount Units: ug/ml

Manual Integration Results



Reviewer: luttek, 24-Feb-2022 20:21:44
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Lab Sample ID: ICV 410-227325/10 Calibration Date: 02/24/2022 20:16

Instrument ID: HP23263 Calib Start Date: 02/24/2022 17:14

GC Column: DB-5MS 30m 0.25 ID: 0.25(mm) Calib End Date: 02/24/2022 19:10

Lab File ID: NB0409.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1-Methylnaphthalene-d10 (Surr)	Ave	0.4944	0.5864		0.237	0.200	18.6	30.0
Fluoranthene-d10 (Surr)	Ave	1.010	1.090		0.216	0.200	8.0	30.0
Benzo(a)pyrene-d12 (Surr)	Ave	0.9564	0.9099		0.190	0.200	-4.9	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0409.D				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	24-Feb-2022 20:16:30	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICV				
Misc. Info.:	410-0051112-010				
Operator ID:	kel10217	Instrument ID:	HP23263		
Sublist:					
Method:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\8270_SIM_HP23263.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	24-Feb-2022 18:36:49	Calib Date:	24-Feb-2022 19:10:30		
Integrator:	Falcon	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Column 1 :	DB-5MS 20m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1641				

First Level Reviewer: luttek Date: 24-Feb-2022 20:41:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 4 1,4-Dichlorobenzene-d4	152	4.530	4.517	0.013	100	20712	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	67424	0.2500	0.2500	
$ 9 1-Methylnaphthalene-d10	152	6.445	6.447	-0.002	98	31632	0.2000	0.2372	
* 13 Acenaphthene-d10	164	7.376	7.379	-0.003	99	39619	0.2500	0.2500	
* 20 Phenanthrene-d10	188	8.788	8.783	0.005	100	67604	0.2500	0.2500	
$ 24 Fluoranthene-d10 (Surr)	212	9.921	9.928	-0.001	95	58960	0.2000	0.2159	
* 29 Chrysene-d12	240	11.454	11.456	-0.002	81	61016	0.2500	0.2500	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.295	13.295	-0.001	96	50594	0.2000	0.1903	
* 38 Perylene-d12	264	13.418	13.419	-0.001	93	69504	0.2500	0.2500	

QC Flag Legend

Processing Flags

Reagents:

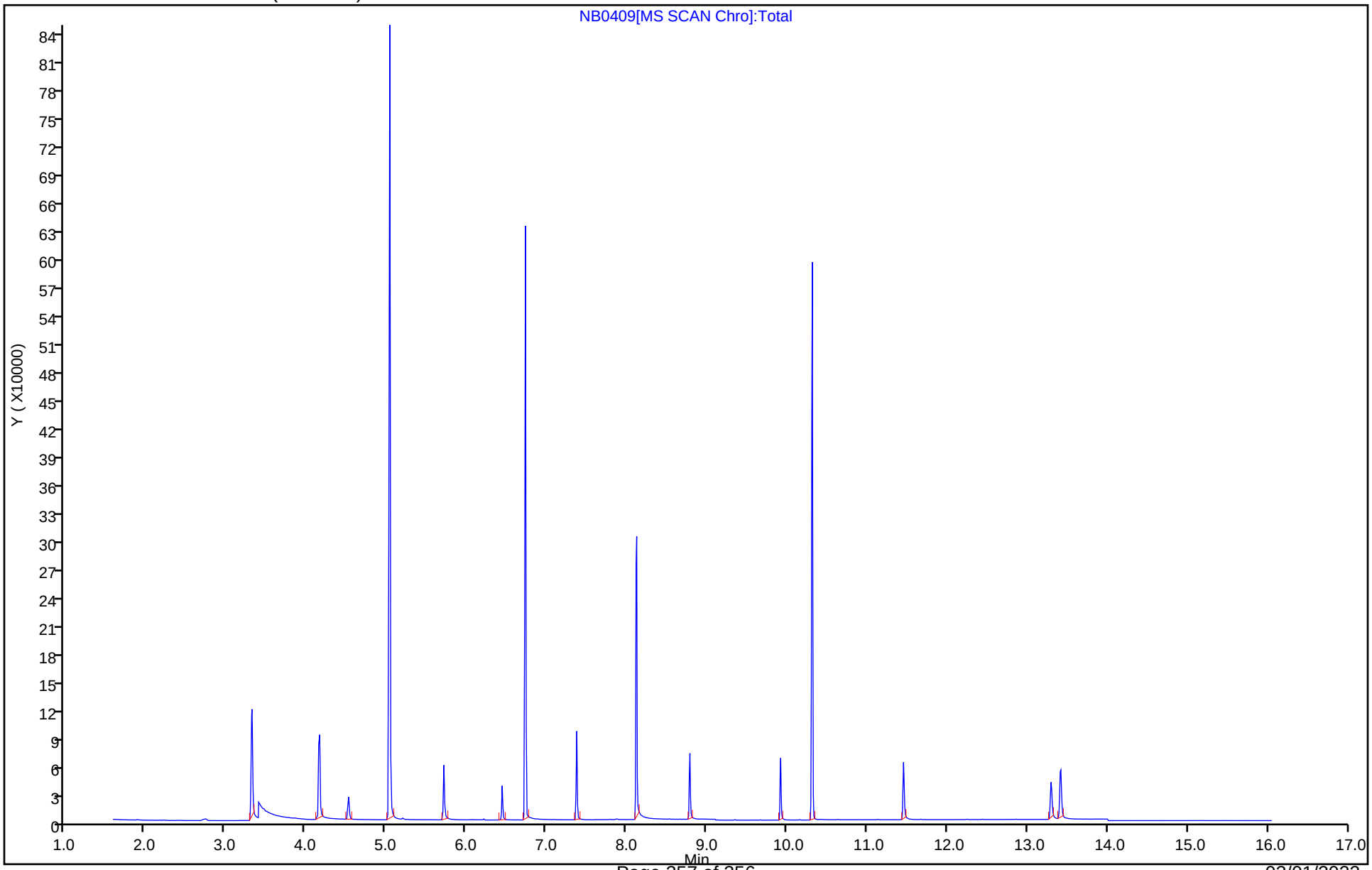
MSS_RVSIM_ICV_00027 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2022 20:41:49 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0409.D				
Injection Date:	24-Feb-2022 20:16:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	ICV			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Lab Sample ID: CCVIS 410-227542/2 Calibration Date: 02/24/2022 21:21

Instrument ID: HP23263 Calib Start Date: 02/24/2022 17:14

GC Column: DB-5MS 30m 0.25 ID: 0.25(mm) Calib End Date: 02/24/2022 19:10

Lab File ID: NB0421.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4811	0.5223		0.543	0.500	8.6	20.0
N-Nitrosodimethylamine	Ave	0.4159	0.4336		0.521	0.500	4.3	20.0
Bis(2-chloroethyl)ether	Ave	0.2029	0.2419		0.596	0.500	19.2	20.0
Naphthalene	Ave	0.9409	1.029		0.547	0.500	9.4	20.0
Quinoline	Ave	0.4599	0.5728		0.623	0.500	24.5*	20.0
2-Methylnaphthalene	Ave	0.5981	0.7045		0.589	0.500	17.8	20.0
1-Methylnaphthalene	Lin2		0.6396		0.574	0.500	14.8	20.0
Dimethylphthalate	Ave	1.338	1.302		2.43	2.50	-2.7	20.0
Acenaphthylene	Ave	1.936	1.975		0.510	0.500	2.0	20.0
Acenaphthene	Ave	1.154	1.176		0.509	0.500	1.8	20.0
Dibenzofuran	Ave	1.705	1.867		0.548	0.500	9.5	20.0
Diethylphthalate	Ave	1.297	1.297		2.50	2.50	-0.0	20.0
Fluorene	Ave	1.347	1.391		0.516	0.500	3.3	20.0
N-Nitrosodiphenylamine	Lin1		0.4638		0.571	0.500	14.1	20.0
Hexachlorobenzene	Ave	0.3929	0.3885		0.494	0.500	-1.1	20.0
Phenanthrene	Ave	1.086	1.123		0.517	0.500	3.4	20.0
Anthracene	Ave	1.086	1.083		0.499	0.500	-0.3	20.0
Di-n-butyl phthalate	Ave	1.102	1.058		2.40	2.50	-4.0	20.0
Fluoranthene	Ave	1.282	1.241		0.484	0.500	-3.2	20.0
Pyrene	Ave	1.481	1.449		0.489	0.500	-2.2	20.0
Butylbenzylphthalate	Ave	0.5304	0.5364		2.53	2.50	1.1	20.0
Benzo[a]anthracene	Ave	1.219	1.274		0.522	0.500	4.5	20.0
Chrysene	Lin2		1.349		0.527	0.500	5.3	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.6966	0.6883		2.47	2.50	-1.2	20.0
Di-n-octyl phthalate	Ave	0.9946	0.9950		2.50	2.50	0.0	20.0
Benzo[b]fluoranthene	Ave	1.237	1.282		0.518	0.500	3.6	20.0
Benzo[k]fluoranthene	Ave	1.318	1.288		0.489	0.500	-2.3	20.0
Benzo[e]pyrene	Ave	1.204	1.229		0.510	0.500	2.0	20.0
Benzo[a]pyrene	Ave	1.154	1.178		0.510	0.500	2.1	20.0
Perylene	Ave	1.166	1.176		0.504	0.500	0.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.138	1.174		0.516	0.500	3.1	20.0
Dibenz(a,h)anthracene	Ave	1.296	1.284		0.495	0.500	-0.9	20.0
Benzo[g,h,i]perylene	Ave	1.429	1.396		0.488	0.500	-2.3	20.0
1-Methylnaphthalene-d10 (Surr)	Ave	0.4944	0.5195		0.525	0.500	5.1	20.0
Fluoranthene-d10 (Surr)	Ave	1.010	1.026		0.508	0.500	1.6	20.0
Benzo(a)pyrene-d12 (Surr)	Ave	0.9564	0.9221		0.482	0.500	-3.6	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0421.D
Lims ID: CCVIS L4
Client ID:
Sample Type: CCVIS
Inject. Date: 24-Feb-2022 21:21:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS L4
Misc. Info.: 410-0051157-002
Operator ID: kel10217 Instrument ID: HP23263
Sublist: chrom-8270_SIM_HP23263*sub3

Method: \\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\8270_SIM_HP23263.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 24-Feb-2022 21:59:24 Calib Date: 24-Feb-2022 19:10:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D

Column 1 : DB-5MS 20m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1641

First Level Reviewer: luttek Date: 24-Feb-2022 21:46:39

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	1.749	1.749	0.000	95	23655	0.5000	0.5428	
2 N-Nitrosodimethylamine	74	2.051	2.051	0.000	76	19640	0.5000	0.5214	
3 Bis(2-chloroethyl)ether	93	4.267	4.267	0.000	84	37183	0.5000	0.5961	
* 4 1,4-Dichlorobenzene-d4	152	4.530	4.530	0.000	98	22646	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	76861	0.2500	0.2500	M
6 Naphthalene	128	5.729	5.729	0.000	99	158206	0.5000	0.5469	
7 Quinoline	129	6.054	6.054	0.000	100	88047	0.5000	0.6227	
8 2-Methylnaphthalene	142	6.387	6.387	0.000	99	108303	0.5000	0.5890	
$ 9 1-Methylnaphthalene-d10	152	6.447	6.447	0.000	98	79865	0.5000	0.5254	
10 1-Methylnaphthalene	142	6.477	6.477	0.000	96	98323	0.5000	0.5742	Ma
11 Dimethyl phthalate	163	7.118	7.118	0.000	100	535919	2.50	2.43	
12 Acenaphthylene	152	7.238	7.238	0.000	97	162624	0.5000	0.5101	
* 13 Acenaphthene-d10	164	7.379	7.379	0.000	98	41177	0.2500	0.2500	
14 Acenaphthene	154	7.409	7.409	0.000	89	96821	0.5000	0.5092	
15 Dibenzofuran	168	7.569	7.569	0.000	73	153777	0.5000	0.5476	
16 Diethyl phthalate	149	7.787	7.787	0.000	99	534017	2.50	2.50	
17 Fluorene	166	7.895	7.895	0.000	100	114567	0.5000	0.5164	M
18 N-Nitrosodiphenylamine	169	8.011	8.011	0.000	98	69787	0.5000	0.5705	
19 Hexachlorobenzene	284	8.412	8.412	0.000	86	58459	0.5000	0.4944	
* 20 Phenanthrene-d10	188	8.783	8.783	0.000	100	75230	0.2500	0.2500	
21 Phenanthrene	178	8.806	8.806	0.000	100	168979	0.5000	0.5172	
22 Anthracene	178	8.860	8.860	0.000	100	162886	0.5000	0.4986	Ma
23 Di-n-butyl phthalate	149	9.352	9.352	0.000	100	796243	2.50	2.40	
$ 24 Fluoranthene-d10 (Surr)	212	9.922	9.922	0.000	95	154399	0.5000	0.5081	
25 Fluoranthene	202	9.935	9.935	0.000	96	186675	0.5000	0.4841	
26 Pyrene	202	10.154	10.154	0.000	94	201474	0.5000	0.4890	
27 Butyl benzyl phthalate	149	10.827	10.827	0.000	100	372964	2.50	2.53	
28 Benzo[a]anthracene	228	11.440	11.440	0.000	99	177134	0.5000	0.5224	
* 29 Chrysene-d12	240	11.455	11.455	0.000	98	69534	0.2500	0.2500	
30 Chrysene	228	11.486	11.486	0.000	100	187646	0.5000	0.5266	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
31 Bis(2-ethylhexyl) phthalate	149	11.509	11.509	0.000	100	478610	2.50	2.47	
32 Di-n-octyl phthalate	149	12.391	12.391	0.000	100	823483	2.50	2.50	
33 Benzo[b]fluoranthene	252	12.867	12.867	0.000	100	212212	0.5000	0.5182	
34 Benzo[k]fluoranthene	252	12.905	12.905	0.000	100	213213	0.5000	0.4886	
35 Benzo[e]pyrene	252	13.258	13.258	0.000	100	203369	0.5000	0.5102	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.296	13.296	0.000	96	152633	0.5000	0.4821	
37 Benzo[a]pyrene	252	13.335	13.335	0.000	100	194950	0.5000	0.5104	
* 38 Perylene-d12	264	13.419	13.419	0.000	93	82764	0.2500	0.2500	
39 Perylene	252	13.457	13.457	0.000	99	194742	0.5000	0.5044	
40 Indeno[1,2,3-cd]pyrene	276	15.055	15.055	0.000	92	194331	0.5000	0.5156	
41 Dibenz(a,h)anthracene	278	15.104	15.104	0.000	93	212588	0.5000	0.4953	
42 Benzo[g,h,i]perylene	276	15.521	15.521	0.000	92	231094	0.5000	0.4884	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

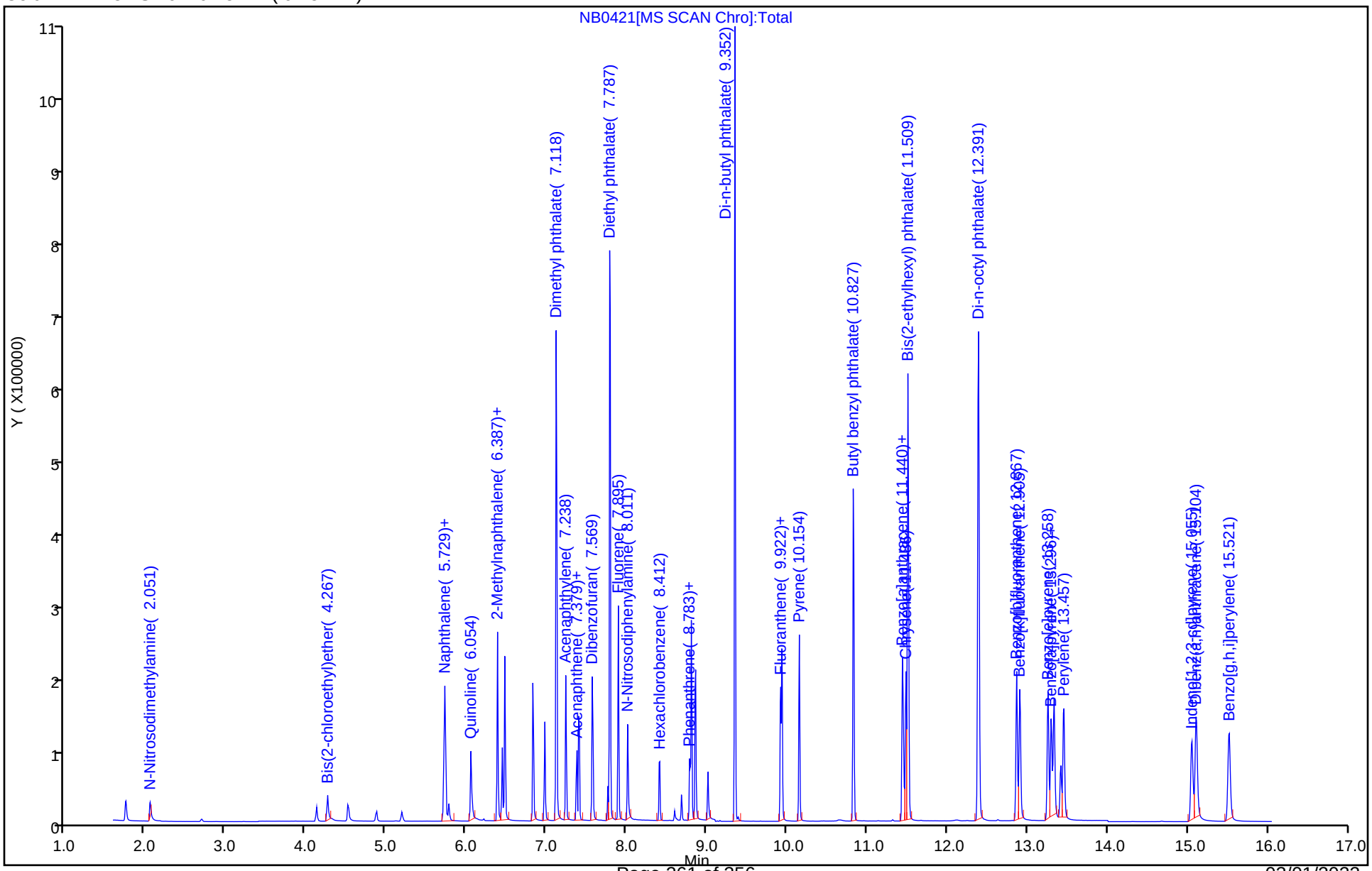
MSS_RVSIM_4_00019 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2022 21:59:24 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0421.D				
Injection Date:	24-Feb-2022 21:21:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	CCVIS L4			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

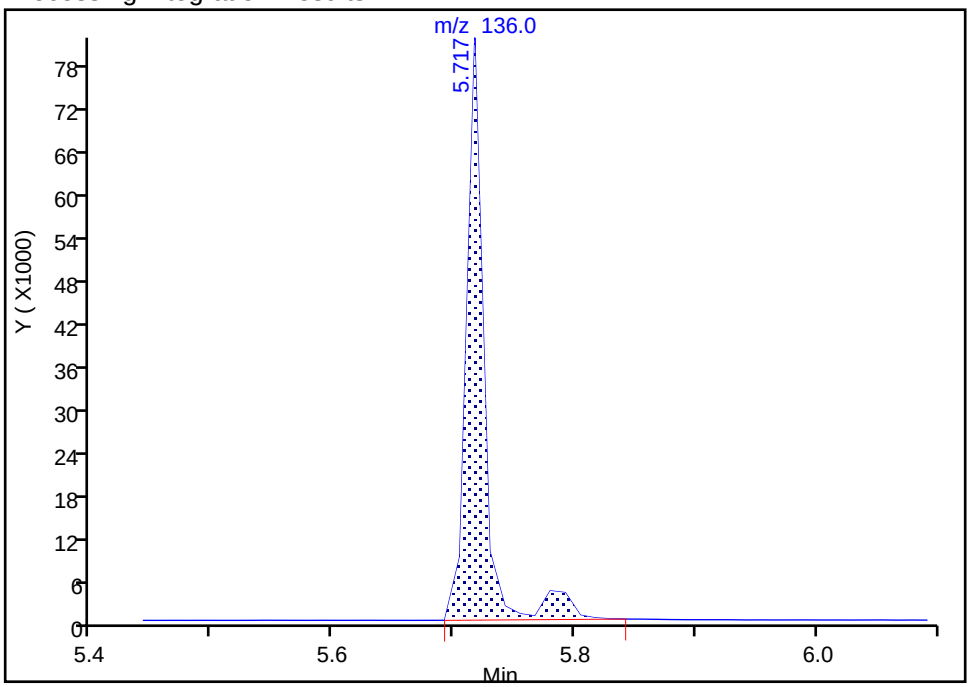
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0421.D				
Injection Date:	24-Feb-2022 21:21:30	Instrument ID:	HP23263		
Lims ID:	CCVIS L4				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

* 5 Naphthalene-d8, CAS: 1146-65-2

Signal: 1

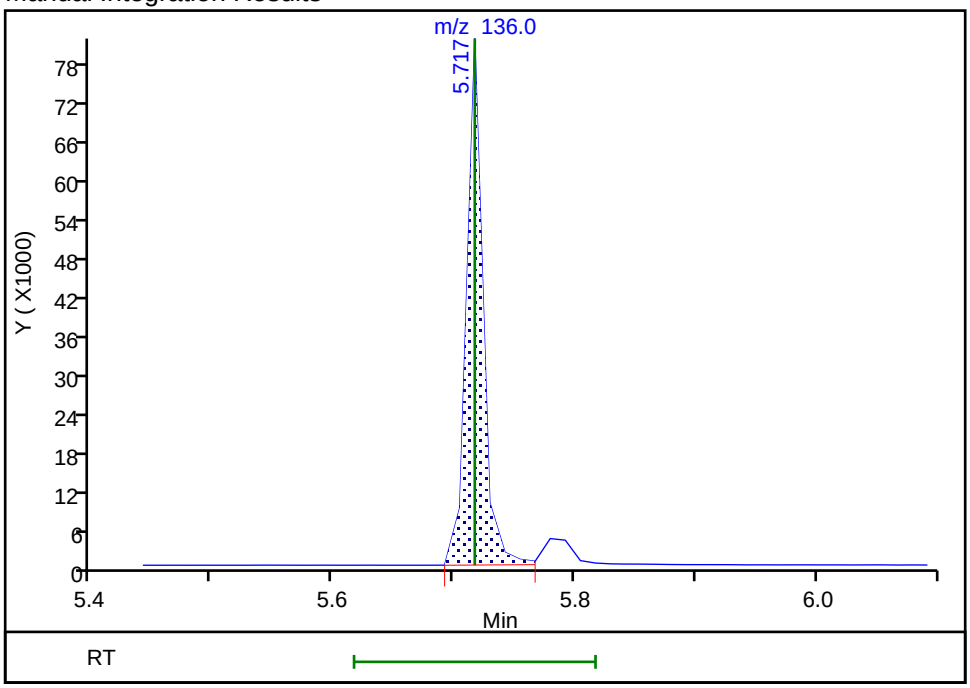
Processing Integration Results

RT: 5.72
Area: 83471
Amount: 0.250000
Amount Units: ug/ml



Manual Integration Results

RT: 5.72
Area: 76861
Amount: 0.250000
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 21:44:48

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

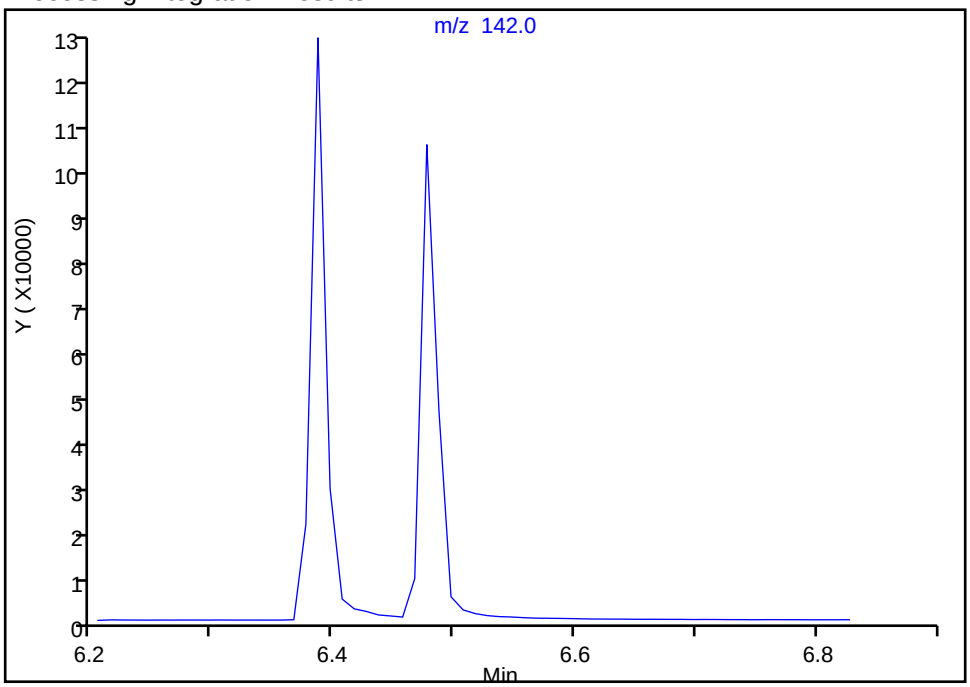
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0421.D				
Injection Date:	24-Feb-2022 21:21:30	Instrument ID:	HP23263		
Lims ID:	CCVIS L4				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

10 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

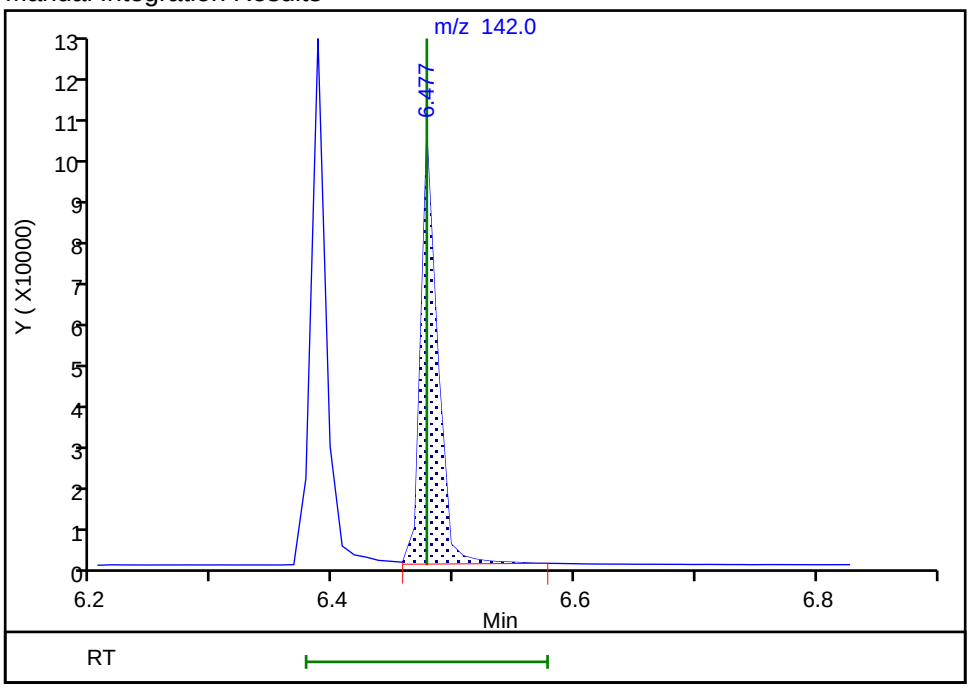
Not Detected
Expected RT: 6.48

Processing Integration Results



RT: 6.48
Area: 98323
Amount: 0.574170
Amount Units: ug/ml

Manual Integration Results



Reviewer: luttek, 24-Feb-2022 21:45:09
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

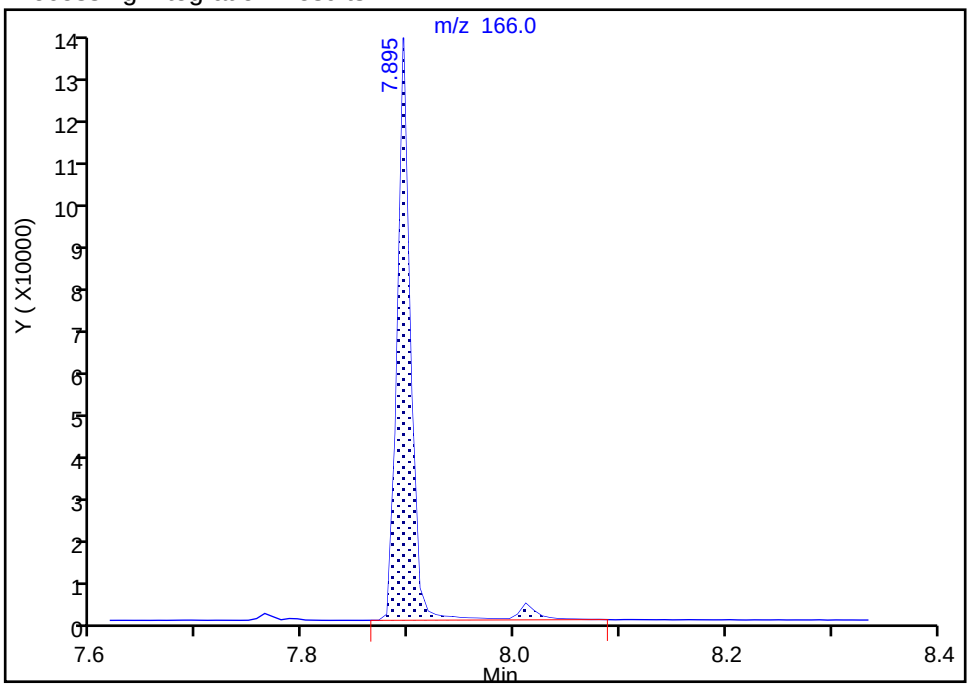
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0421.D				
Injection Date:	24-Feb-2022 21:21:30	Instrument ID:	HP23263		
Lims ID:	CCVIS L4				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

17 Fluorene, CAS: 86-73-7

Signal: 1

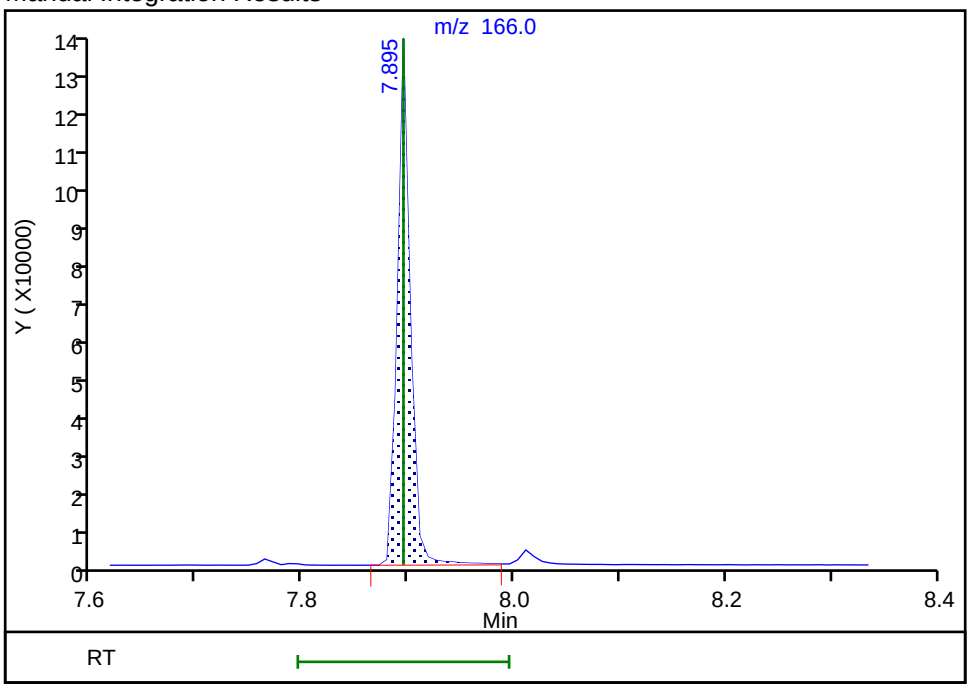
Processing Integration Results

RT: 7.89
Area: 118966
Amount: 0.536201
Amount Units: ug/ml



Manual Integration Results

RT: 7.89
Area: 114567
Amount: 0.516374
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 21:45:18

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

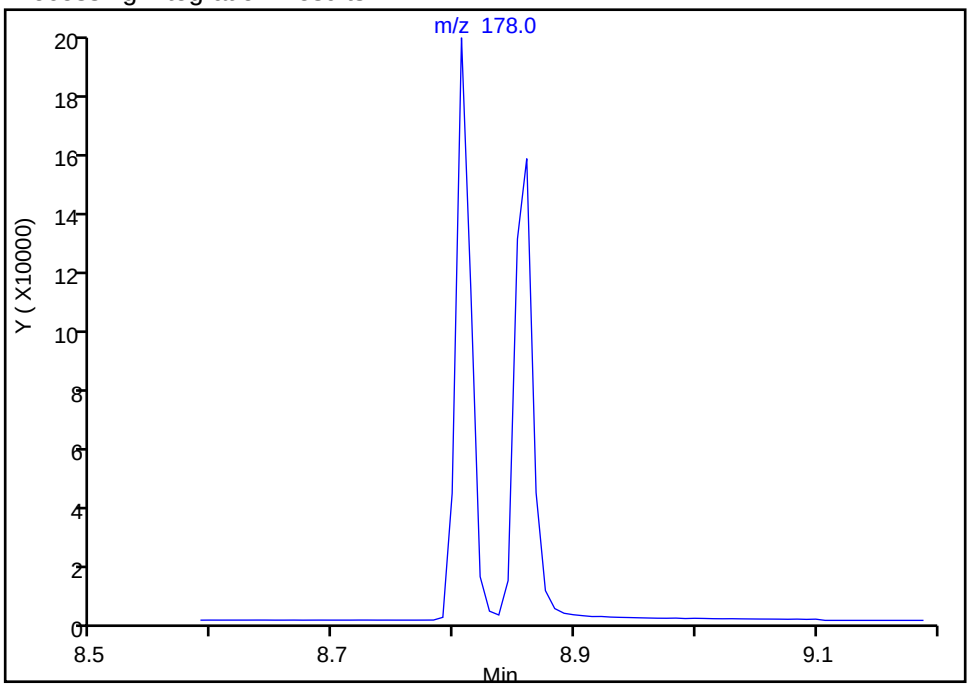
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0421.D				
Injection Date:	24-Feb-2022 21:21:30	Instrument ID:	HP23263		
Lims ID:	CCVIS L4				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

22 Anthracene, CAS: 120-12-7

Signal: 1

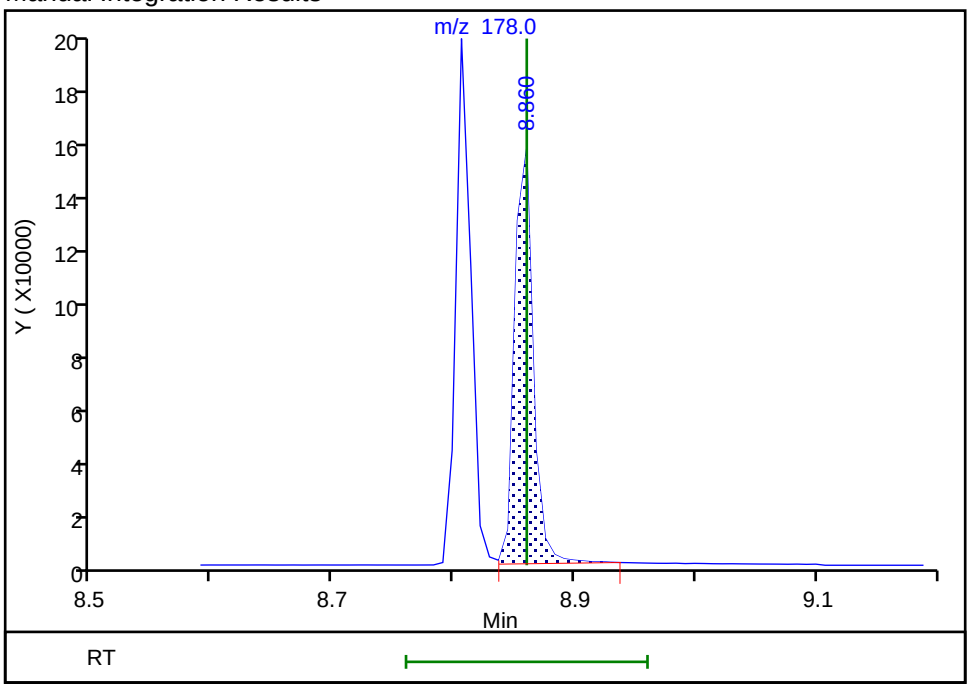
Not Detected
Expected RT: 8.86

Processing Integration Results



Manual Integration Results

RT: 8.86
Area: 162886
Amount: 0.498586
Amount Units: ug/ml



Reviewer: luttek, 24-Feb-2022 21:45:26
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0700.D				
Lims ID:	DFTPP				
Client ID:					
Sample Type:	DFTPP				
Inject. Date:	21-Feb-2022 05:14:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	DFTPP				
Misc. Info.:	410-0050767-001				
Operator ID:	jmg00346	Instrument ID:	HP10976		

Method:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\8270_SIM_HP10976.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	21-Feb-2022 10:49:43	Calib Date:	21-Feb-2022 08:48:30
Integrator:	Falcon	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D		

Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Det: MS SCAN
Process Host:	CTX1679	

First Level Reviewer: gamblerj Date: 21-Feb-2022 10:49:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
44 Pentachlorophenol_T	266	5.714	5.714	0.000	0	1419734	NR	NR	
45 DFTPP									
46 Benzidine_T	184	7.227	7.227	0.000	0	5754363	NR	NR	
47 4,4'-DDE	246	7.411	7.411	0.000	0	34085		NR	
48 4,4'-DDD	235	7.786	7.786	0.000	0	17149		NR	
49 4,4'-DDT	235	8.051	8.051	0.000	0	3472875	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

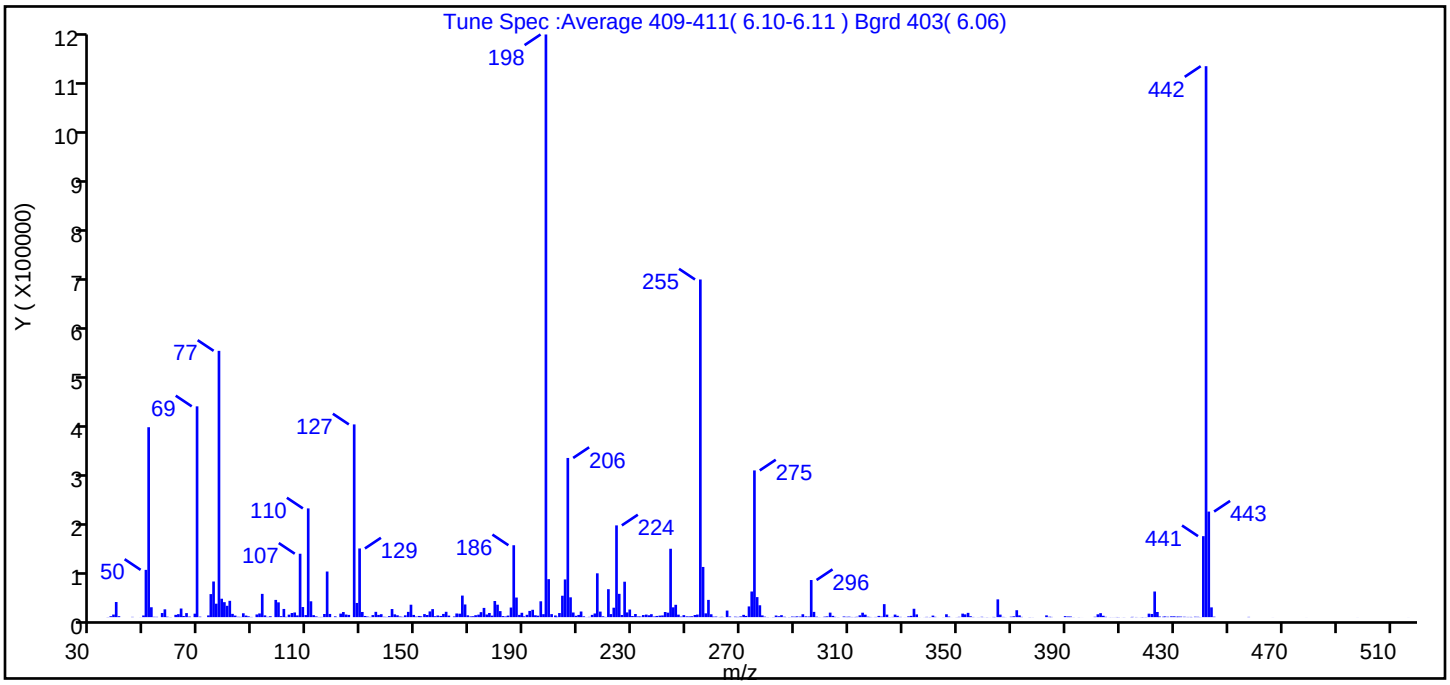
MSS_FVDFTPP_00014 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0700.D				
Injection Date:	21-Feb-2022 05:14:30	Instrument ID:	HP10976		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Tune Method:	DFTPP Method 8270D, BP 198				

45 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (105.8)
51	10-80% of the base peak	32.6
68	<2% of mass 69	0.6 (1.6)
69	Present	36.2
70	<2% of mass 69	0.1 (0.2)
127	10-80% of the base peak	33.1
197	<2% of mass 198	0.5
199	5-9% of mass 198	6.5
275	10-60% of the base peak	25.2
365	>1% of mass 198	3.1
441	present but <24% of mass 442	13.9 (14.7)
442	base peak, or >50% of 198	94.6
443	15-24% of mass 442	18.1 (19.2)

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0700.D\8270_SIM_HP10976.rslt\spectra.
Injection Date: 21-Feb-2022 05:14:30
Spectrum: Tune Spec :Average 409-411(6.10-6.11) Bgrd 403(6.06)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 381

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	287	145.00	623	242.00	10289	340.00	311
37.00	1882	146.00	3649	243.00	8955	341.00	3096
38.00	5175	147.00	10541	244.00	136896	342.00	661
39.00	30296	148.00	24880	245.00	19640	343.00	53
40.00	1871	149.00	4435	246.00	24704	345.00	166
45.00	526	150.00	1065	247.00	4981	346.00	5775
48.00	133	151.00	2398	248.00	1074	347.00	1163
49.00	3339	152.00	1585	249.00	4026	348.00	68
50.00	94632	153.00	6096	250.00	1538	350.00	185
51.00	380160	154.00	4325	251.00	1409	351.00	633
52.00	19792	155.00	11470	252.00	1762	352.00	7010
53.00	727	156.00	16106	253.00	4286	353.00	5588
54.00	622	157.00	1820	254.00	5154	354.00	8569
56.00	8225	158.00	3296	255.00	675904	355.00	1864
57.00	15664	159.00	2406	256.00	100472	356.00	415
58.00	891	160.00	6402	257.00	7585	357.00	65
59.00	231	161.00	10684	258.00	34536	358.00	165
61.00	4594	162.00	3101	259.00	5767	359.00	692
62.00	5960	164.00	1331	260.00	957	360.00	95
63.00	17280	165.00	7348	261.00	1165	361.00	265
64.00	2384	166.00	6956	262.00	413	362.00	65
65.00	8128	167.00	43168	263.00	684	363.00	468
66.00	1123	168.00	25392	264.00	155	364.00	257
68.00	6942	169.00	3691	265.00	13136	365.00	35600
69.00	421952	170.00	1500	266.00	1219	366.00	5035
70.00	933	171.00	1814	267.00	56	367.00	493
73.00	3460	172.00	3849	268.00	935	368.00	143
74.00	46136	173.00	4981	269.00	525	370.00	921
75.00	71352	174.00	10009	270.00	1427	371.00	1693
76.00	26912	175.00	18496	271.00	4577	372.00	13843
77.00	533056	176.00	5271	272.00	2480	373.00	3567
78.00	36864	177.00	8328	273.00	21464	374.00	537
79.00	29984	178.00	3048	274.00	51320	377.00	235

Report Date: 21-Feb-2022 10:49:43 Chrom Revision: 2.3 18-Jan-2022 20:25:40
Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0700.D\8270_SIM_HP10976.rslt\spectra.
Injection Date: 21-Feb-2022 05:14:30
Spectrum: Tune Spec :Average 409-411(6.10-6.11) Bgrd 403(6.06)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 381

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	22728	179.00	32272	275.00	293696	378.00	139
81.00	32680	180.00	24896	276.00	40096	383.00	3535
82.00	6580	181.00	12060	277.00	23760	384.00	799
83.00	3111	182.00	2102	278.00	3471	385.00	489
84.00	752	183.00	1313	279.00	998	390.00	2035
85.00	522	184.00	3121	280.00	302	391.00	1364
86.00	7751	185.00	19224	281.00	80	392.00	1245
87.00	3137	186.00	143936	282.00	286	393.00	152
88.00	1668	187.00	39256	283.00	3248	395.00	185
89.00	414	188.00	4495	284.00	1849	396.00	55
90.00	21	189.00	8744	285.00	3944	401.00	742
91.00	5387	190.00	1605	286.00	852	402.00	5656
92.00	7407	191.00	4688	287.00	129	403.00	7966
93.00	46584	192.00	12443	288.00	290	404.00	2752
94.00	3508	193.00	14728	289.00	1171	405.00	661
95.00	679	194.00	3745	290.00	898	406.00	118
96.00	1808	195.00	2918	291.00	1556	407.00	115
98.00	34504	196.00	31736	292.00	1118	408.00	135
99.00	29632	197.00	5952	293.00	5826	409.00	332
100.00	1929	198.00	1166336	294.00	1530	410.00	247
101.00	16408	199.00	76032	295.00	1224	411.00	56
102.00	663	200.00	6065	296.00	74320	412.00	194
103.00	4992	201.00	3309	297.00	10520	414.00	314
104.00	8281	202.00	930	298.00	942	415.00	563
105.00	9342	203.00	8215	299.00	208	416.00	337
106.00	3507	204.00	42864	300.00	109	417.00	72
107.00	126936	205.00	75456	301.00	1012	418.00	231
108.00	20224	206.00	318656	302.00	1456	419.00	271
109.00	4120	207.00	39688	303.00	9041	420.00	300
110.00	217664	208.00	9303	304.00	2567	421.00	6964
111.00	31736	209.00	2718	305.00	593	422.00	6381
112.00	3948	210.00	4436	306.00	244	423.00	51304
113.00	1420	211.00	11290	308.00	1317	424.00	10320
114.00	378	212.00	1601	309.00	703	425.00	1260

Report Date: 21-Feb-2022 10:49:43 Chrom Revision: 2.3 18-Jan-2022 20:25:40
Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0700.D\8270_SIM_HP10976.rslt\spectra.
Injection Date: 21-Feb-2022 05:14:30
Spectrum: Tune Spec :Average 409-411(6.10-6.11) Bgrd 403(6.06)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 381

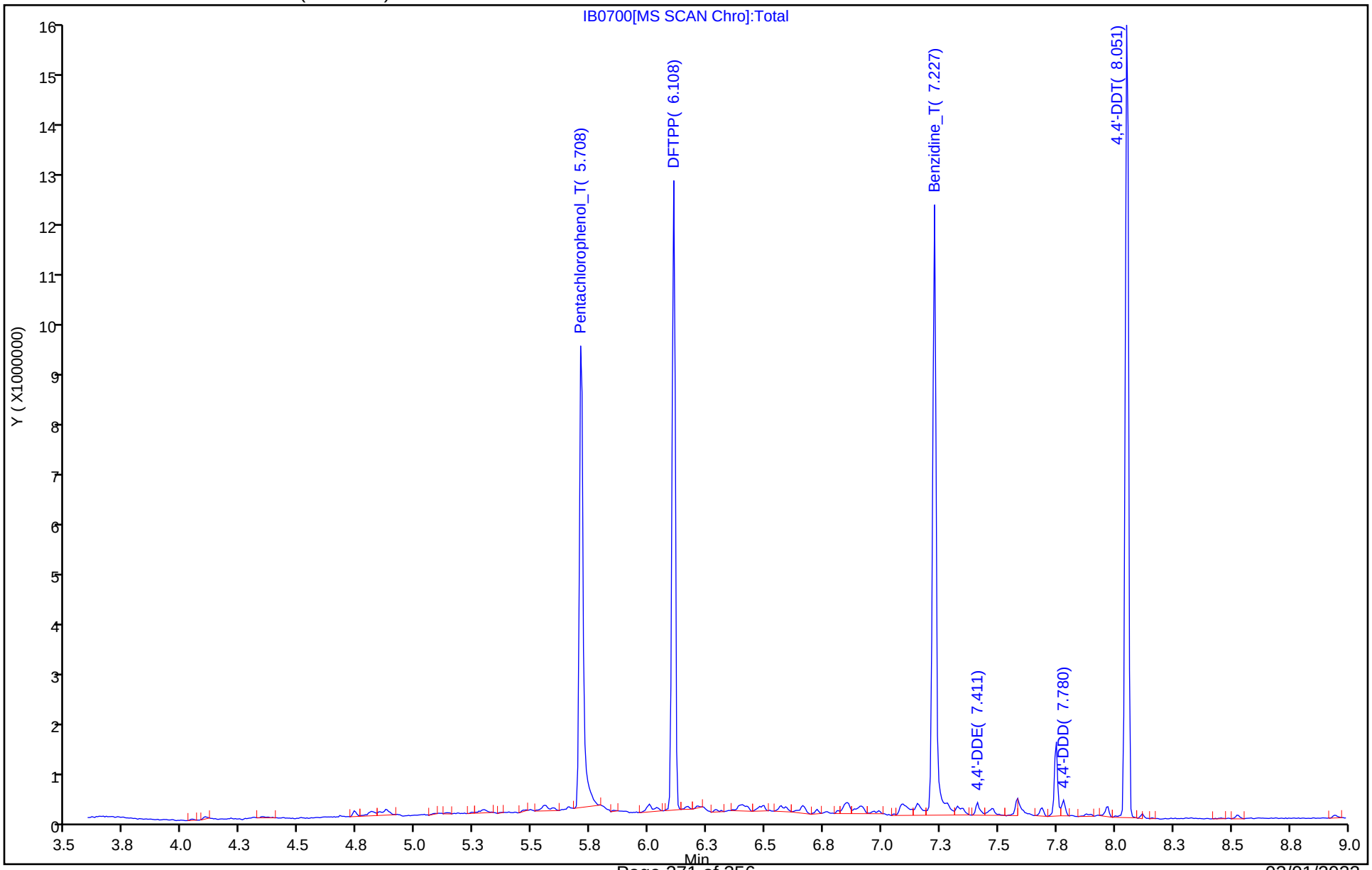
m/z	Y	m/z	Y	m/z	Y	m/z	Y
115.00	466	213.00	171	310.00	978	426.00	815
116.00	6280	214.00	586	311.00	378	427.00	1405
117.00	91328	215.00	4506	312.00	364	428.00	855
118.00	6390	216.00	7334	313.00	729	429.00	1644
119.00	26	217.00	87728	314.00	3682	430.00	1642
120.00	1587	218.00	11125	315.00	8882	431.00	867
121.00	65	219.00	1670	316.00	4952	432.00	1110
122.00	7030	220.00	422	317.00	913	433.00	1109
123.00	10248	221.00	55952	318.00	380	434.00	813
124.00	5233	222.00	6119	319.00	95	435.00	467
125.00	4465	223.00	18888	320.00	425	436.00	497
127.00	385792	224.00	183680	321.00	2501	437.00	180
128.00	28408	225.00	46632	322.00	1081	438.00	843
129.00	137472	226.00	4332	323.00	26032	439.00	711
130.00	10363	227.00	70920	324.00	5041	440.00	219
131.00	2341	228.00	9489	325.00	249	441.00	162112
132.00	1233	229.00	15263	326.00	492	442.00	1102848
133.00	486	230.00	2224	327.00	5104	443.00	211328
134.00	4113	231.00	6294	328.00	2706	444.00	19560
135.00	10620	232.00	1390	329.00	539	445.00	901
136.00	4489	233.00	1224	330.00	59	458.00	50
137.00	5919	234.00	4204	331.00	72	458.00	523
138.00	749	235.00	5113	332.00	1614	467.00	73
139.00	436	236.00	3705	333.00	2525	479.00	51
140.00	2111	237.00	5917	334.00	16784	498.00	63
141.00	16240	238.00	1254	335.00	5474	517.00	60
142.00	5627	239.00	2391	336.00	112		
143.00	3697	240.00	3063	338.00	104		
144.00	1230	241.00	3426	339.00	543		

Report Date: 21-Feb-2022 10:49:43 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0700.D				
Injection Date:	21-Feb-2022 05:14:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	DFTPP			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Breakdown Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0700.D				
Injection Date:	21-Feb-2022 05:14:30	Instrument ID:	HP10976		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

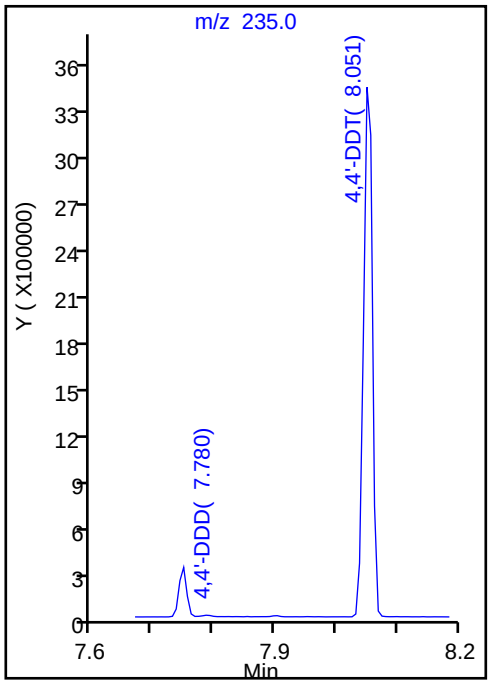
49 4,4'-DDT, Detector: MS SCAN

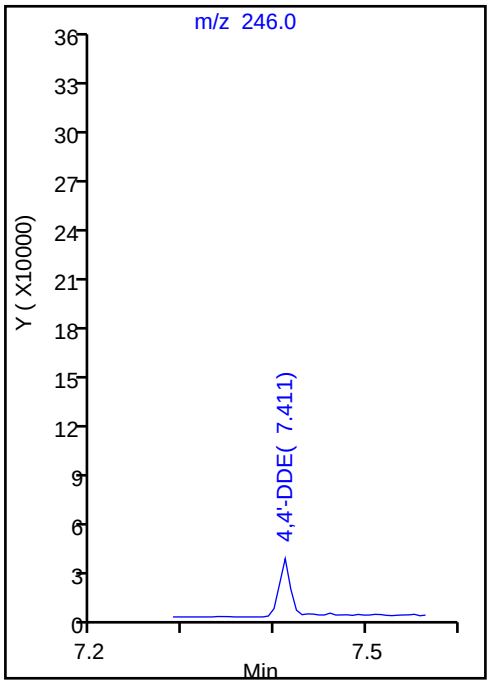
SW-846 Method

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

49 4,4'-DDT, Area = 3472875
47 4,4'-DDE, Area = 34085
48 4,4'-DDD, Area = 17149

%Breakdown: 1.45%, <= 20.00%
Passed





Peak Tailing Report

Eurofins Lancaster Laboratories Env, LLC

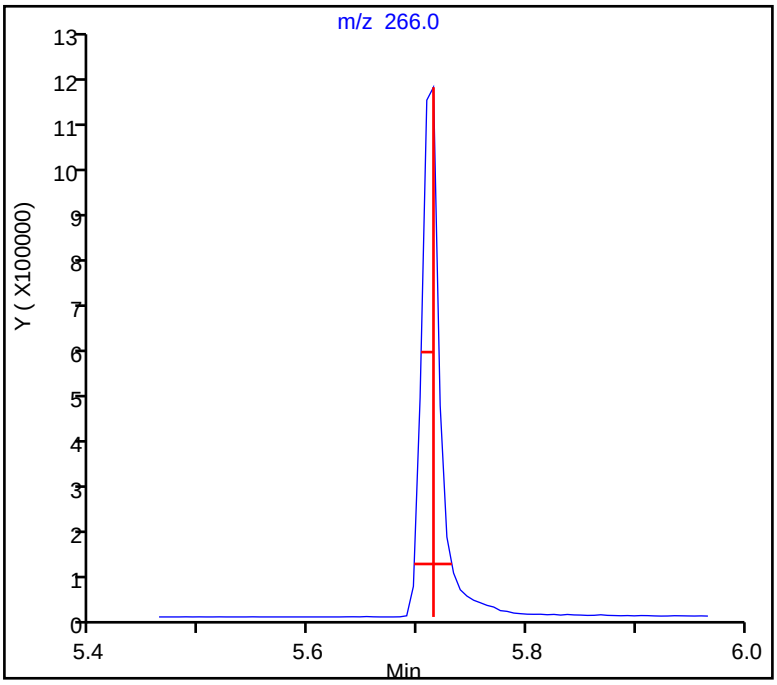
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0700.D				
Injection Date:	21-Feb-2022 05:14:30	Instrument ID:	HP10976		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

44 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.017 (min.)
Front Width = 0.018 (min.)

Tailing Factor = 0.94, Max. Tailing <= 2.00
Passed



Peak Tailing Report

Eurofins Lancaster Laboratories Env, LLC

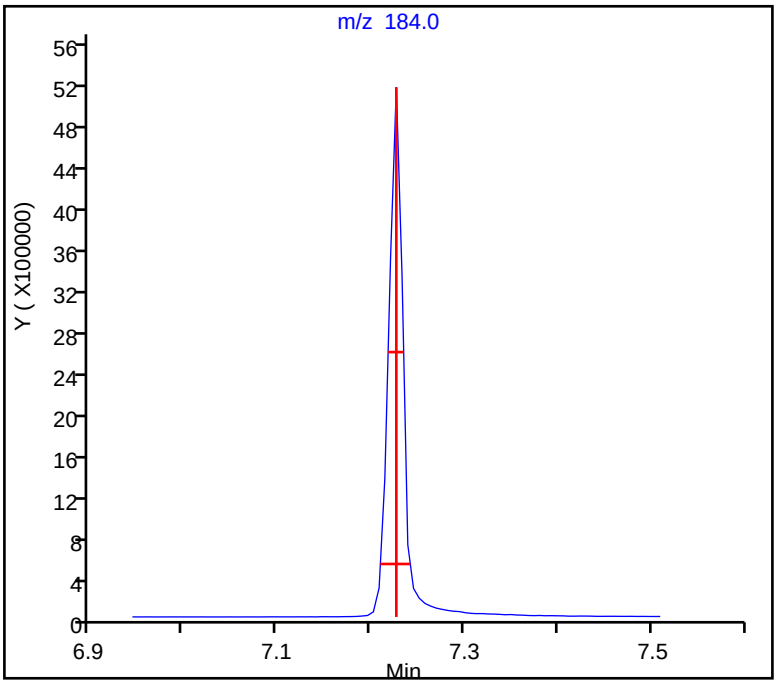
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0700.D				
Injection Date:	21-Feb-2022 05:14:30	Instrument ID:	HP10976		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

46 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.015 (min.)
Front Width = 0.017 (min.)

Tailing Factor = 0.88, Max. Tailing <= 2.00
Passed



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0800a.D				
Lims ID:	DFTPP				
Client ID:					
Sample Type:	DFTPP				
Inject. Date:	21-Feb-2022 18:55:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	DFTPP				
Misc. Info.:	410-0050850-001				
Operator ID:	art12405	Instrument ID:	HP10976		
Method:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\8270_SIM_HP10976.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	21-Feb-2022 19:42:28	Calib Date:	21-Feb-2022 08:48:30		
Integrator:	Falcon	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1654				
First Level Reviewer: transuea		Date:	21-Feb-2022 19:09:54		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
44 Pentachlorophenol_T	266	5.708	5.708	0.000	0	1380872	NR	NR	
45 DFTPP									
46 Benzidine_T	184	7.227	7.227	0.000	0	7244045	NR	NR	
47 4,4'-DDE	246	7.405	7.405	0.000	0	54274		NR	
48 4,4'-DDD	235	7.743	7.743	0.000	0	333568		NR	
49 4,4'-DDT	235	8.051	8.051	0.000	0	4009192	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

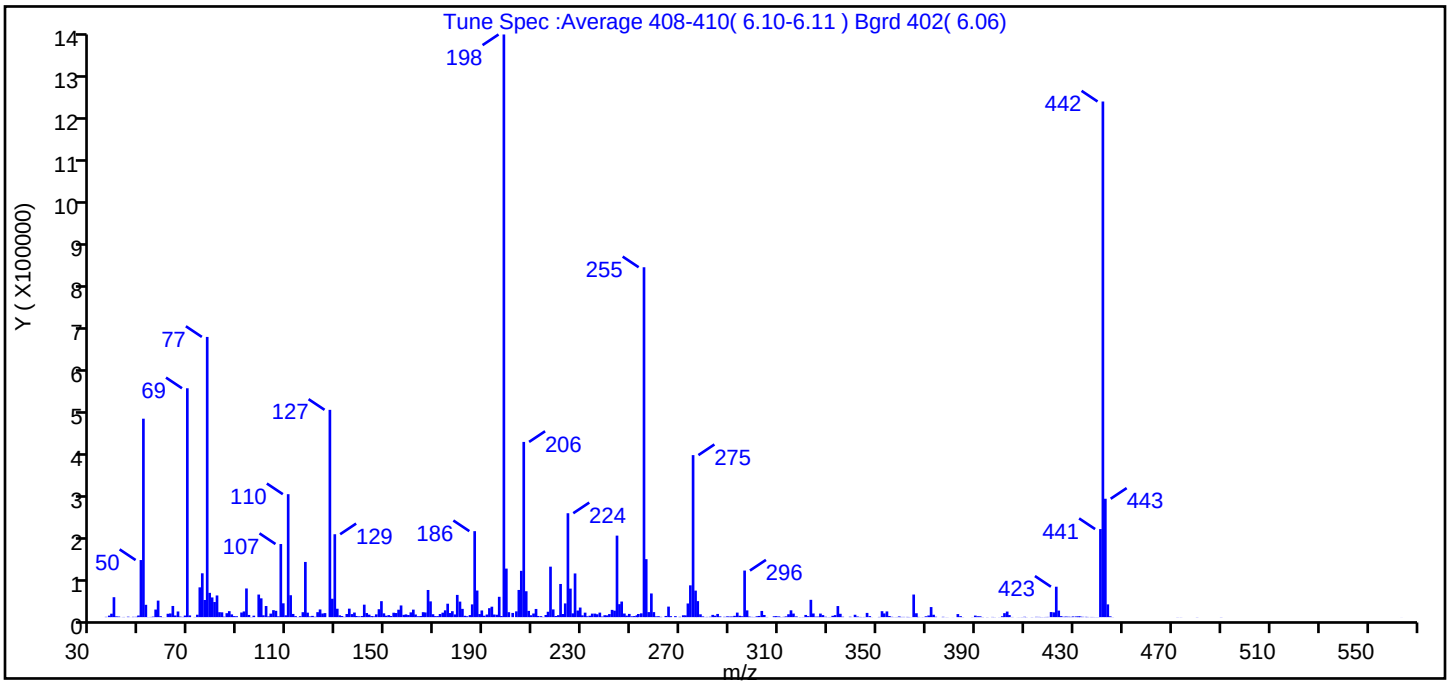
MSS_FVDFTPP_00014 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0800a.D				
Injection Date:	21-Feb-2022 18:55:30	Instrument ID:	HP10976		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	art12405	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Tune Method:	DFTPP Method 8270D, BP 198				

45 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (113.0)
51	10-80% of the base peak	34.1
68	<2% of mass 69	0.3 (0.7)
69	Present	39.3
70	<2% of mass 69	0.3 (0.8)
127	10-80% of the base peak	35.6
197	<2% of mass 198	0.2
199	5-9% of mass 198	8.3
275	10-60% of the base peak	27.8
365	>1% of mass 198	3.9
441	present but <24% of mass 442	15.1 (17.1)
442	base peak, or >50% of 198	88.5
443	15-24% of mass 442	20.3 (23.0)

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0800a.D\8270_SIM_HP10976.rslt\spectra
Injection Date: 21-Feb-2022 18:55:30
Spectrum: Tune Spec :Average 408-410(6.10-6.11) Bgrd 402(6.06)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 393

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	684	140.00	2595	240.00	3927	345.00	468
37.00	3471	141.00	28328	241.00	6949	346.00	9604
38.00	7834	142.00	9318	242.00	16488	347.00	2253
39.00	45248	143.00	5661	243.00	14651	348.00	193
40.00	1749	144.00	2365	244.00	184960	351.00	136
41.00	1319	145.00	1822	245.00	29456	351.00	541
42.00	91	146.00	6350	246.00	35384	352.00	13502
43.00	422	147.00	17992	247.00	8197	353.00	8405
45.00	1056	148.00	36264	248.00	3406	354.00	12969
46.00	95	149.00	8653	249.00	7339	355.00	2519
47.00	741	150.00	3237	250.00	1929	356.00	788
48.00	798	151.00	4598	251.00	2474	357.00	216
49.00	3732	152.00	2559	252.00	4125	358.00	389
50.00	129536	153.00	9981	253.00	7136	359.00	1610
51.00	450240	154.00	9350	254.00	8643	360.00	492
52.00	28000	155.00	16864	255.00	793856	361.00	564
53.00	278	156.00	26528	256.00	131584	362.00	546
54.00	491	157.00	5167	257.00	11418	363.00	404
55.00	1172	158.00	6227	258.00	53752	364.00	231
56.00	17208	159.00	4821	259.00	11378	365.00	51312
57.00	37528	160.00	10856	260.00	1756	366.00	8845
58.00	2190	161.00	17048	261.00	2117	367.00	565
59.00	286	162.00	6026	262.00	647	368.00	151
60.00	164	163.00	2033	264.00	2702	369.00	224
61.00	7650	164.00	2498	265.00	23912	370.00	1940
62.00	8397	165.00	11270	266.00	2224	371.00	3757
63.00	25352	166.00	10597	268.00	2255	372.00	22856
64.00	3743	167.00	61624	270.00	727	373.00	5435
65.00	12860	168.00	35792	270.00	43	374.00	917
66.00	1241	169.00	6620	271.00	4165	377.00	90
67.00	508	170.00	2292	272.00	3987	377.00	748
68.00	3547	171.00	2262	273.00	31024	378.00	163
69.00	519296	172.00	7089	274.00	72176	379.00	151

Report Date: 21-Feb-2022 19:42:28 Chrom Revision: 2.3 18-Jan-2022 20:25:40
Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0800a.D\8270_SIM_HP10976.rslt\spectra
Injection Date: 21-Feb-2022 18:55:30
Spectrum: Tune Spec :Average 408-410(6.10-6.11) Bgrd 402(6.06)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 393

m/z	Y	m/z	Y	m/z	Y	m/z	Y
70.00	3910	173.00	10141	275.00	367616	381.00	98
72.00	432	174.00	15485	276.00	60200	383.00	6981
73.00	5475	175.00	30488	277.00	36320	384.00	2211
74.00	67600	176.00	9315	278.00	6464	385.00	259
75.00	99488	177.00	13506	279.00	1699	389.00	226
76.00	38920	178.00	6140	280.00	135	390.00	3537
77.00	635776	179.00	50448	281.00	571	391.00	2035
78.00	55120	180.00	35232	282.00	932	392.00	1915
79.00	44720	181.00	18768	283.00	5146	393.00	358
80.00	34312	182.00	3040	284.00	3259	395.00	292
81.00	49200	183.00	1973	285.00	7295	397.00	492
82.00	11236	184.00	4629	286.00	1665	398.00	264
83.00	10955	185.00	28936	287.00	42	400.00	227
84.00	1087	186.00	195072	288.00	794	401.00	1945
85.00	8973	187.00	60376	289.00	1838	402.00	9048
86.00	13611	188.00	7016	290.00	1316	403.00	12647
87.00	6272	189.00	15174	291.00	1424	404.00	4710
88.00	2362	190.00	3187	292.00	2991	405.00	434
89.00	2048	191.00	5920	293.00	10297	407.00	90
91.00	10514	192.00	20320	294.00	3061	408.00	202
92.00	12951	193.00	23696	295.00	2036	409.00	316
93.00	65080	194.00	5989	296.00	105688	410.00	802
94.00	4992	195.00	5459	297.00	15331	411.00	278
95.00	330	196.00	46152	298.00	1221	413.00	335
96.00	3325	197.00	2515	299.00	590	414.00	62
98.00	51248	198.00	1321984	300.00	420	415.00	705
99.00	42688	199.00	110152	301.00	1893	416.00	584
100.00	4201	200.00	11208	302.00	2687	417.00	317
101.00	25232	202.00	9571	303.00	14077	418.00	248
102.00	1691	203.00	13168	304.00	4869	419.00	459
103.00	8015	204.00	61688	305.00	427	420.00	557
104.00	15828	205.00	105080	308.00	2006	421.00	11514
105.00	14382	206.00	397568	309.00	2283	422.00	10882
106.00	1809	207.00	58776	310.00	1662	423.00	69040

Report Date: 21-Feb-2022 19:42:28 Chrom Revision: 2.3 18-Jan-2022 20:25:40
Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0800a.D\8270_SIM_HP10976.rslt\spectra
Injection Date: 21-Feb-2022 18:55:30
Spectrum: Tune Spec :Average 408-410(6.10-6.11) Bgrd 402(6.06)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 393

m/z	Y	m/z	Y	m/z	Y	m/z	Y
107.00	165888	208.00	14179	311.00	321	424.00	14830
108.00	31392	209.00	4291	312.00	758	425.00	2311
109.00	4164	210.00	8267	313.00	1671	426.00	870
110.00	278976	211.00	18576	314.00	6569	427.00	1381
111.00	49728	212.00	2697	315.00	15474	428.00	992
112.00	7278	213.00	2267	316.00	8116	429.00	663
113.00	2288	214.00	445	317.00	1652	430.00	1578
114.00	267	215.00	4869	318.00	100	431.00	1655
115.00	2081	216.00	12230	319.00	306	432.00	1777
116.00	11235	217.00	114536	320.00	385	433.00	1603
117.00	125240	218.00	17552	321.00	4985	434.00	812
118.00	10162	219.00	2647	322.00	2270	435.00	705
119.00	1592	220.00	4472	323.00	39296	436.00	458
120.00	2892	221.00	75264	324.00	8318	437.00	428
121.00	859	222.00	7122	325.00	1126	438.00	415
122.00	11285	223.00	31128	326.00	1189	439.00	247
123.00	17464	224.00	235776	327.00	8090	440.00	293
124.00	8279	225.00	64736	328.00	4603	441.00	199808
125.00	9141	226.00	8609	329.00	977	442.00	1169920
127.00	470336	227.00	99136	330.00	227	443.00	268608
128.00	41760	228.00	14991	331.00	383	444.00	28960
129.00	188096	229.00	21760	332.00	3007	445.00	1812
130.00	19056	230.00	4030	333.00	4560	446.00	257
131.00	4064	231.00	10185	334.00	25184	472.00	243
132.00	2511	232.00	1936	335.00	7621	474.00	73
133.00	590	233.00	3251	336.00	943	474.00	150
134.00	7164	234.00	7977	339.00	916	480.00	292
135.00	19248	235.00	7980	340.00	114	490.00	285
136.00	6936	236.00	6514	341.00	5399	564.00	98
137.00	10440	237.00	10262	342.00	1523		
138.00	2589	238.00	1336	343.00	497		
139.00	1840	239.00	4334	344.00	230		

Report Date: 21-Feb-2022 19:42:28 Chrom Revision: 2.3 18-Jan-2022 20:25:40

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0800a.D

Injection Date: 21-Feb-2022 18:55:30 Instrument ID: HP10976 Operator ID: art12405

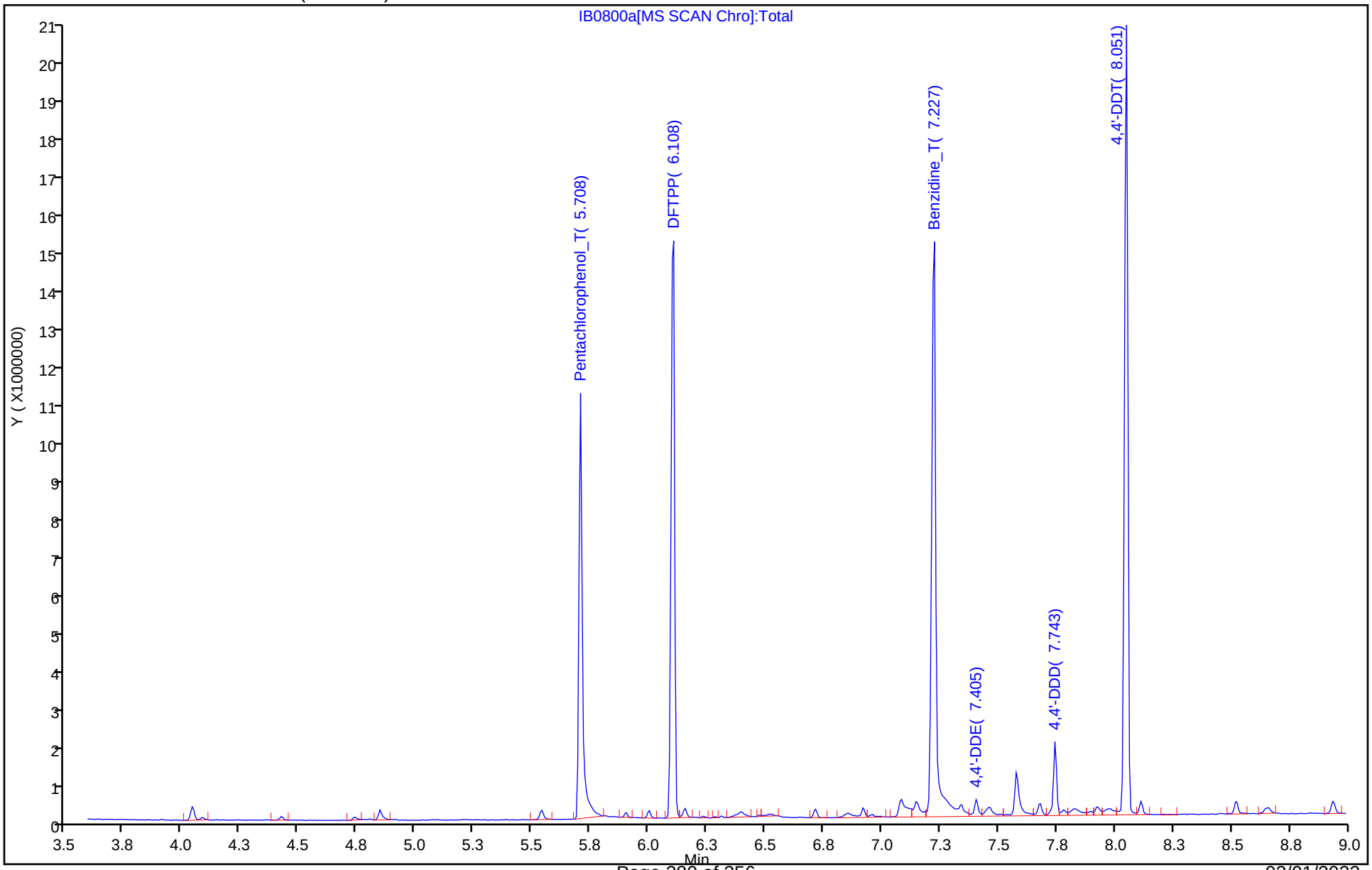
Lims ID: DFTPP Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 1

Method: 8270_SIM_HP10976 Limit Group: MSSV - 8270D_E SIM

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Breakdown Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0800a.D				
Injection Date:	21-Feb-2022 18:55:30	Instrument ID:	HP10976		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	art12405	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

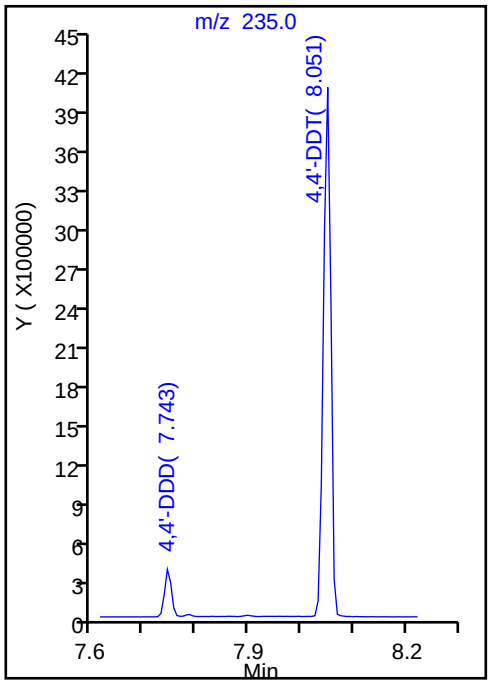
49 4,4'-DDT, Detector: MS SCAN

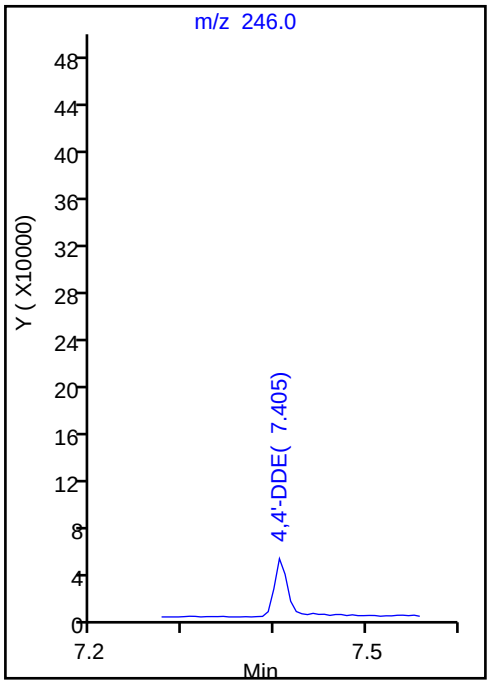
SW-846 Method

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

49 4,4'-DDT, Area = 4009192
47 4,4'-DDE, Area = 54274
48 4,4'-DDD, Area = 333568

%Breakdown: 8.82%, <= 20.00%
Passed





Peak Tailing Report

Eurofins Lancaster Laboratories Env, LLC

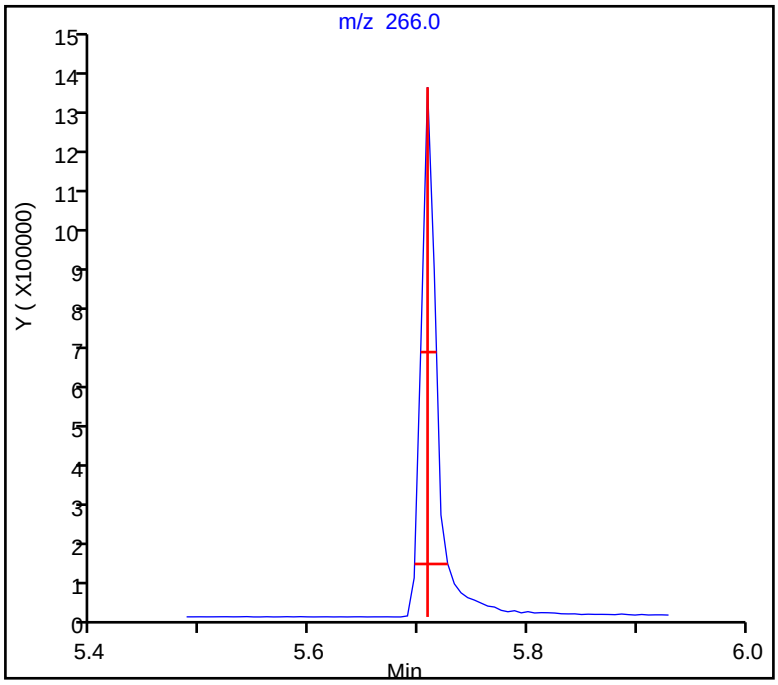
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0800a.D				
Injection Date:	21-Feb-2022 18:55:30	Instrument ID:	HP10976		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	art12405	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

44 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.019 (min.)
Front Width = 0.012 (min.)

Tailing Factor = 1.58, Max. Tailing <= 2.00
Passed



Peak Tailing Report

Eurofins Lancaster Laboratories Env, LLC

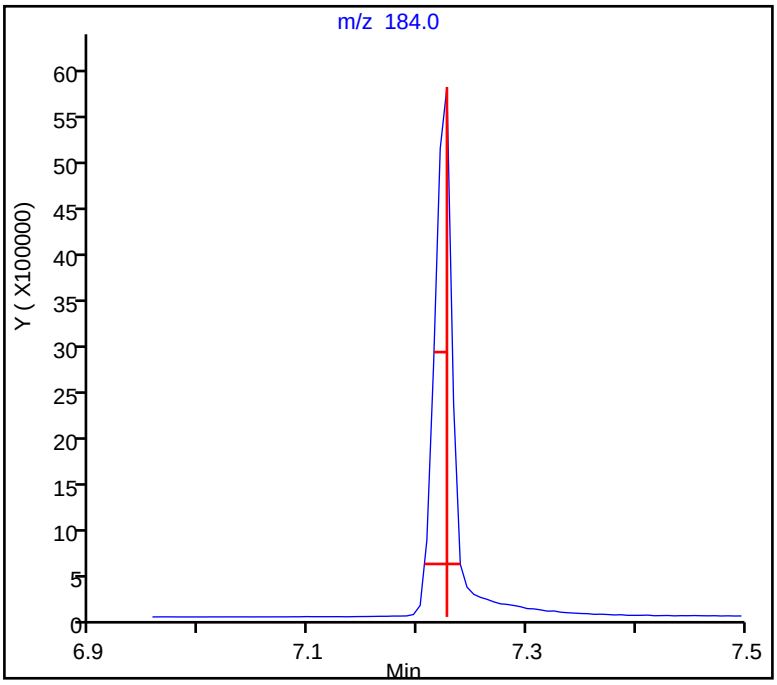
Data File: \\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0800a.D
Injection Date: 21-Feb-2022 18:55:30 Instrument ID: HP10976
Lims ID: DFTPP
Client ID:
Operator ID: art12405 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270_SIM_HP10976 Limit Group: MSSV - 8270D_E SIM

46 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.012 (min.)
Front Width = 0.021 (min.)

Tailing Factor = 0.57, Max. Tailing <= 2.00
Passed



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0870.D				
Lims ID:	DFTPP				
Client ID:					
Sample Type:	DFTPP				
Inject. Date:	22-Feb-2022 06:48:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	DFTPP				
Misc. Info.:	410-0050858-001				
Operator ID:	jmg00346	Instrument ID:	HP10976		
Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	22-Feb-2022 08:47:05	Calib Date:	21-Feb-2022 08:48:30		
Integrator:	Falcon	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1678				

First Level Reviewer: gamblerj Date: 22-Feb-2022 08:47:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
44 Pentachlorophenol_T	266	5.677	5.677	0.000	0	1721535	NR	NR	
45 DFTPP									
46 Benzidine_T	184	7.190	7.190	0.000	0	6136999	NR	NR	
47 4,4'-DDE	246	7.374	7.374	0.000	0	49424		NR	
48 4,4'-DDD	235	7.749	7.749	0.000	0	29316		NR	
49 4,4'-DDT	235	8.020	8.020	0.000	0	5971577	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

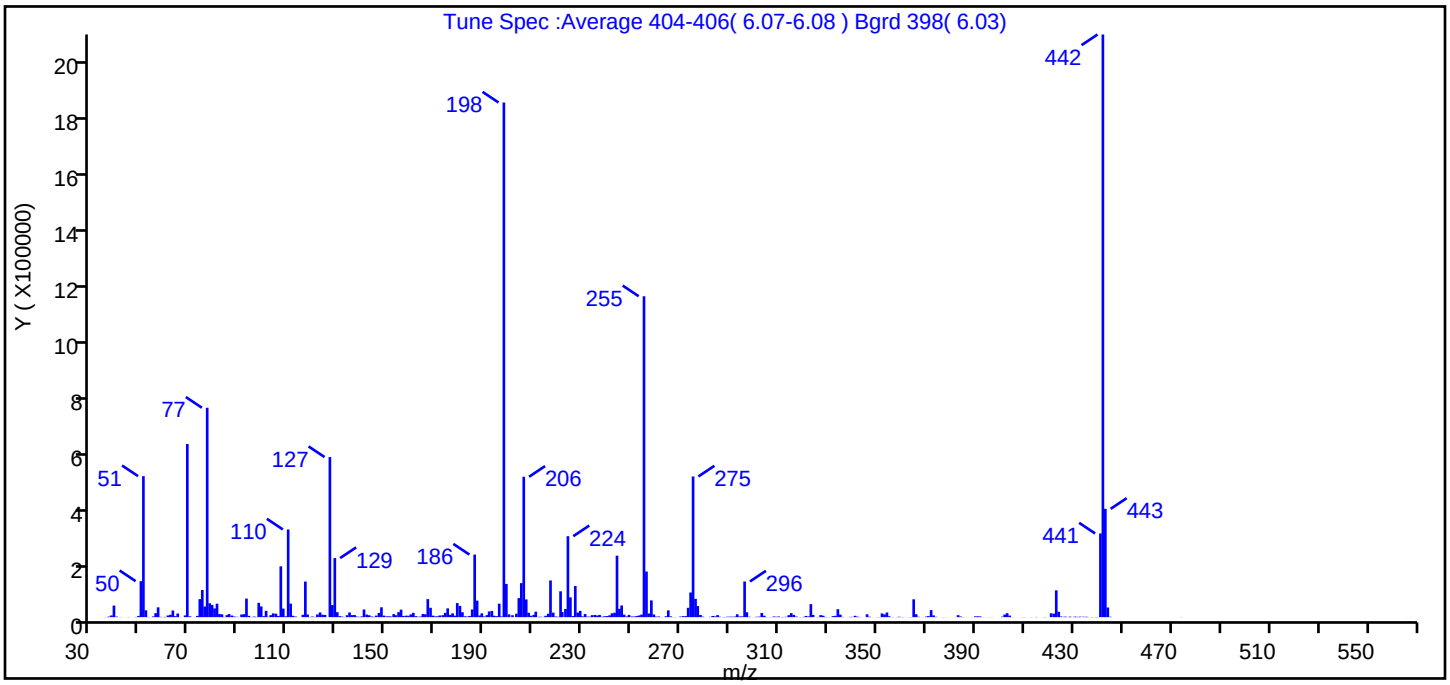
MSS_FVDFTPP_00014 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0870.D
Injection Date: 22-Feb-2022 06:48:30 Instrument ID: HP10976
Lims ID: DFTPP
Client ID:
Operator ID: jmg00346 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270_SIM_HP10976 Limit Group: MSSV - 8270D_E SIM
Tune Method: DFTPP Method 8270D, BP 198

45 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (88.3)
51	10-80% of the base peak	27.4
68	<2% of mass 69	0.3 (1.0)
69	Present	33.6
70	<2% of mass 69	0.2 (0.5)
127	10-80% of the base peak	31.1
197	<2% of mass 198	0.1
199	5-9% of mass 198	6.5
275	10-60% of the base peak	27.3
365	>1% of mass 198	3.5
441	present but <24% of mass 442	16.3 (14.4)
442	base peak, or >50% of 198	113.2
443	15-24% of mass 442	21.0 (18.6)

Data File: \\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0870.D\8270_SIM_HP10976.rslt\spectra.
Injection Date: 22-Feb-2022 06:48:30
Spectrum: Tune Spec :Average 404-406(6.07-6.08) Bgrd 398(6.03)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 384

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	112	138.00	2278	235.00	7623	334.00	27704
36.00	519	139.00	1230	236.00	5528	335.00	8790
37.00	2053	140.00	2510	237.00	7706	336.00	829
38.00	5915	141.00	26864	238.00	1639	337.00	114
39.00	40432	142.00	8990	239.00	3265	339.00	996
40.00	1823	143.00	6565	240.00	3750	340.00	906
41.00	359	144.00	2221	241.00	6317	341.00	4663
42.00	290	145.00	848	242.00	13513	342.00	1744
45.00	584	146.00	5398	243.00	15302	343.00	362
47.00	42	147.00	14642	244.00	214720	344.00	203
48.00	668	148.00	34440	245.00	28976	346.00	9962
49.00	4353	149.00	5374	246.00	40768	347.00	1497
50.00	125624	150.00	2816	247.00	8661	348.00	313
51.00	492224	151.00	2829	248.00	2495	350.00	377
52.00	23928	152.00	2109	249.00	7839	351.00	559
53.00	646	153.00	10568	250.00	2331	352.00	13058
54.00	85	154.00	6592	251.00	2250	353.00	9538
55.00	2591	155.00	17400	252.00	3700	354.00	16215
56.00	13850	156.00	26248	253.00	5872	355.00	3118
57.00	34312	157.00	3978	254.00	8820	356.00	420
58.00	1097	158.00	5188	255.00	1120256	357.00	242
59.00	527	159.00	4840	256.00	159104	358.00	463
60.00	773	160.00	9661	257.00	12758	359.00	1413
61.00	5884	161.00	15043	258.00	58496	360.00	360
62.00	8422	162.00	3483	259.00	9324	361.00	630
63.00	23256	163.00	1514	260.00	1975	362.00	163
64.00	3422	164.00	2083	261.00	2231	363.00	452
65.00	12642	165.00	10817	262.00	571	364.00	407
66.00	178	166.00	9853	264.00	3015	365.00	62344
68.00	5867	167.00	62888	265.00	23672	366.00	10087
69.00	604544	168.00	32704	266.00	2682	367.00	1140
70.00	2917	169.00	5377	267.00	369	369.00	292
72.00	231	170.00	2540	268.00	373	370.00	1992

Report Date: 22-Feb-2022 08:47:05 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0870.D\8270_SIM_HP10976.rslt\spectra.
Injection Date: 22-Feb-2022 06:48:30
Spectrum: Tune Spec :Average 404-406(6.07-6.08) Bgrd 398(6.03)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 384

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	4403	171.00	2929	270.00	2100	371.00	3674
74.00	63000	172.00	5859	271.00	3378	372.00	24504
75.00	94784	173.00	6832	272.00	3540	373.00	6089
76.00	37000	174.00	14954	273.00	32616	374.00	1089
77.00	731072	175.00	30656	274.00	86040	377.00	515
78.00	48520	176.00	8078	275.00	491136	378.00	199
79.00	42688	177.00	13215	276.00	63840	379.00	94
80.00	30448	178.00	5087	277.00	38688	382.00	181
81.00	46880	179.00	49136	278.00	7570	383.00	6931
82.00	10939	180.00	39208	279.00	1687	384.00	2245
83.00	9889	181.00	17136	280.00	168	385.00	576
84.00	640	182.00	2901	282.00	998	386.00	156
85.00	7003	183.00	1916	283.00	4050	388.00	64
86.00	10904	184.00	4056	284.00	2642	389.00	247
87.00	5633	185.00	26736	285.00	7127	390.00	2797
88.00	2353	186.00	218432	286.00	1412	391.00	2863
89.00	1129	187.00	57600	287.00	460	392.00	2493
91.00	9335	188.00	5766	288.00	538	393.00	295
92.00	10260	189.00	13355	289.00	1541	395.00	270
93.00	64824	190.00	2433	290.00	1538	396.00	148
94.00	4539	191.00	7043	291.00	1512	397.00	271
95.00	523	192.00	19760	292.00	2132	401.00	1810
96.00	2066	193.00	21808	293.00	9999	402.00	9063
97.00	813	194.00	4982	294.00	2386	403.00	13669
98.00	49872	195.00	3744	295.00	2790	404.00	5389
99.00	37424	196.00	47016	296.00	124512	405.00	344
100.00	3425	197.00	2480	297.00	16952	408.00	74
101.00	22032	198.00	1796608	298.00	1326	409.00	329
102.00	1344	199.00	115944	299.00	263	410.00	501
103.00	6838	200.00	9647	300.00	285	413.00	401
104.00	13141	201.00	6640	301.00	1274	414.00	161
105.00	12094	203.00	12074	302.00	1844	415.00	695
106.00	4020	204.00	66544	303.00	14620	418.00	507
107.00	177344	205.00	118752	304.00	4826	419.00	245

Report Date: 22-Feb-2022 08:47:05 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0870.D\8270_SIM_HP10976.rslt\spectra.
Injection Date: 22-Feb-2022 06:48:30
Spectrum: Tune Spec :Average 404-406(6.07-6.08) Bgrd 398(6.03)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 384

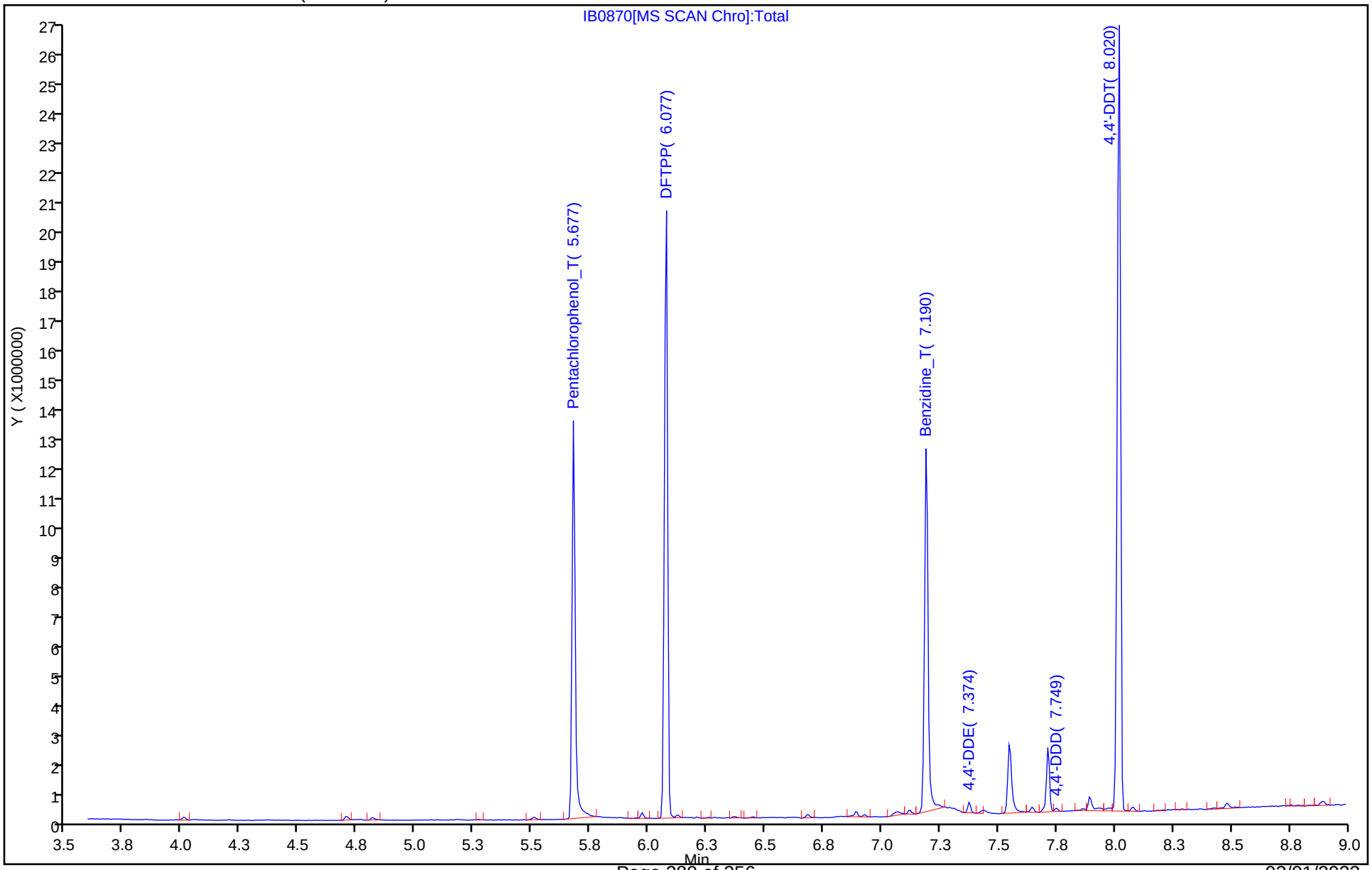
m/z	Y	m/z	Y	m/z	Y	m/z	Y
108.00	29864	206.00	490112	305.00	606	420.00	73
109.00	2817	207.00	61872	306.00	262	421.00	13369
110.00	306176	208.00	15324	307.00	262	422.00	12153
111.00	47160	209.00	4882	308.00	2190	423.00	93592
112.00	4755	210.00	8011	309.00	1389	424.00	18656
113.00	2193	211.00	19048	310.00	2208	425.00	2194
114.00	195	212.00	874	311.00	501	426.00	1180
115.00	150	213.00	1375	312.00	763	427.00	1375
116.00	8275	214.00	881	313.00	1213	428.00	1201
117.00	124272	215.00	4676	314.00	6718	429.00	1169
118.00	9265	216.00	11895	315.00	14077	430.00	1515
119.00	826	217.00	128144	316.00	8004	431.00	1313
120.00	2108	218.00	15756	317.00	2084	432.00	894
121.00	725	219.00	2170	318.00	227	433.00	1592
122.00	9323	220.00	1422	319.00	462	434.00	1392
123.00	16353	221.00	90264	320.00	871	435.00	1312
124.00	8348	222.00	17680	321.00	4258	436.00	642
125.00	7690	223.00	28616	322.00	2630	437.00	484
127.00	558848	224.00	282560	323.00	45440	438.00	420
128.00	42096	225.00	69008	324.00	7684	439.00	523
129.00	206272	226.00	4040	325.00	209	440.00	541
130.00	17336	227.00	108624	326.00	749	441.00	292096
131.00	3516	228.00	15773	327.00	7126	442.00	2034176
132.00	1927	229.00	21888	328.00	5128	443.00	378112
133.00	517	230.00	2959	329.00	861	444.00	33688
134.00	6667	231.00	10823	330.00	296	445.00	1378
135.00	16276	232.00	1789	331.00	350	474.00	447
136.00	6921	233.00	1883	332.00	3499	566.00	113
137.00	7615	234.00	6948	333.00	4464	567.00	102

Report Date: 22-Feb-2022 08:47:05 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0870.D				
Injection Date:	22-Feb-2022 06:48:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	DFTPP			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Breakdown Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0870.D				
Injection Date:	22-Feb-2022 06:48:30	Instrument ID:	HP10976		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

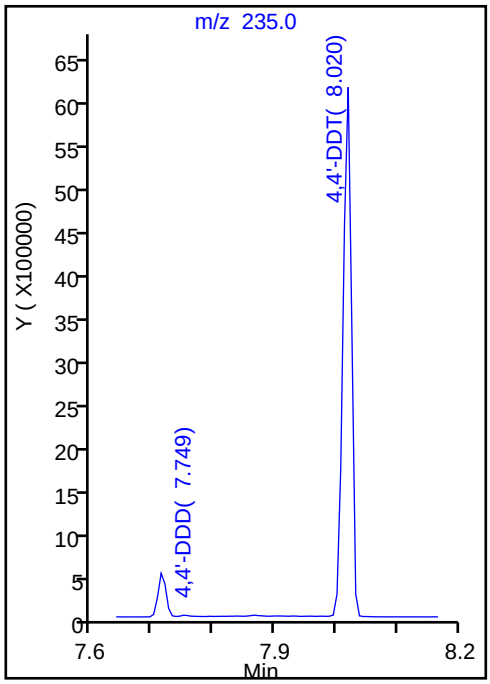
49 4,4'-DDT, Detector: MS SCAN

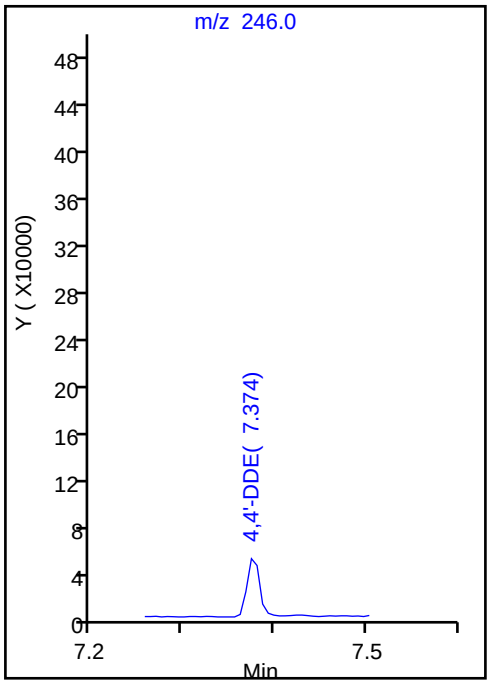
SW-846 Method

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

49 4,4'-DDT, Area = 5971577
47 4,4'-DDE, Area = 49424
48 4,4'-DDD, Area = 29316

%Breakdown: 1.30%, <= 20.00%
Passed





Peak Tailing Report

Eurofins Lancaster Laboratories Env, LLC

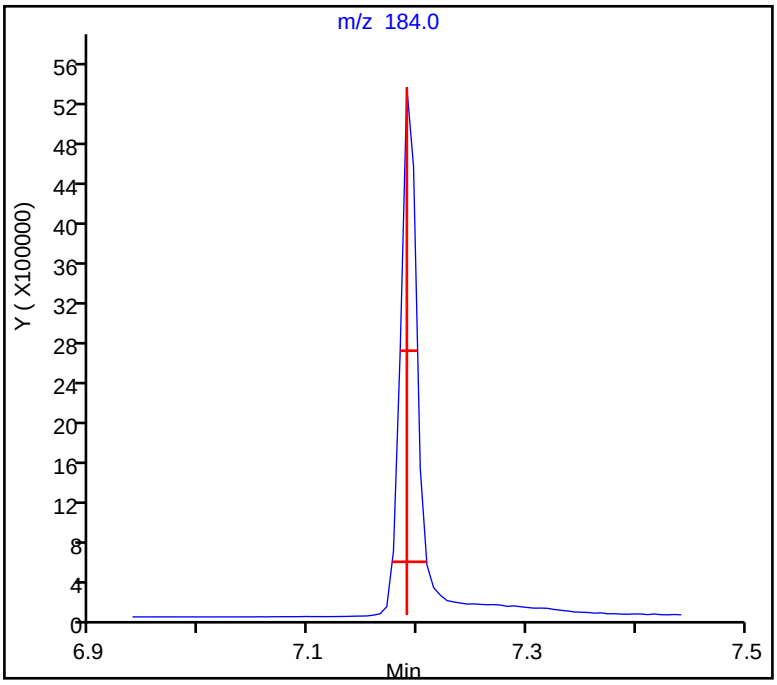
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0870.D				
Injection Date:	22-Feb-2022 06:48:30	Instrument ID:	HP10976		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

46 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.018 (min.)
Front Width = 0.013 (min.)

Tailing Factor = 1.38, Max. Tailing <= 2.00
Passed



Peak Tailing Report

Eurofins Lancaster Laboratories Env, LLC

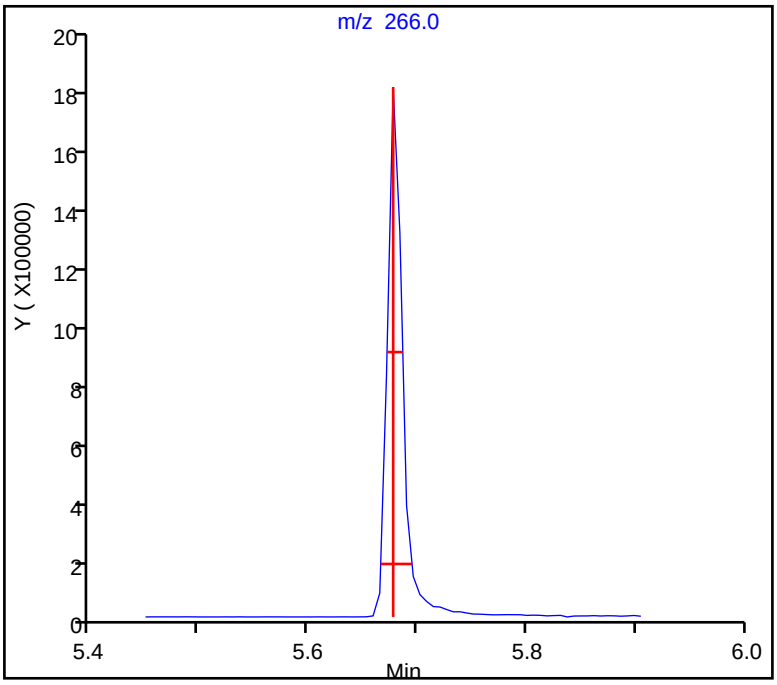
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0870.D				
Injection Date:	22-Feb-2022 06:48:30	Instrument ID:	HP10976		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	jmg00346	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

44 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.017 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 1.55, Max. Tailing <= 2.00
Passed



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0400e.D				
Lims ID:	DFTPP				
Client ID:					
Sample Type:	DFTPP				
Inject. Date:	24-Feb-2022 16:52:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	DFTPP				
Misc. Info.:	410-0051112-001				
Operator ID:	kel10217	Instrument ID:	HP23263		
Method:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\8270_SIM_HP23263.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	24-Feb-2022 20:43:03	Calib Date:	24-Feb-2022 19:10:30		
Integrator:	Falcon	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Column 1 :	DB-5MS 20m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1641				

First Level Reviewer: luttek Date: 24-Feb-2022 20:43:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
44 Pentachlorophenol_T	266	4.530	4.530	0.000	95	1796120	NR	NR	
45 DFTPP									
46 Benzidine_T	184	5.818	5.818	0.000	98	4621995	NR	NR	
47 4,4'-DDE	246	5.974	5.974	0.000	71	8752		NR	
48 4,4'-DDD	235	6.251	6.251	0.000	90	21808		NR	
49 4,4'-DDT	235	6.505	6.505	0.000	96	3348051	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

8 - Failed MS Tune Ratio Test

Reagents:

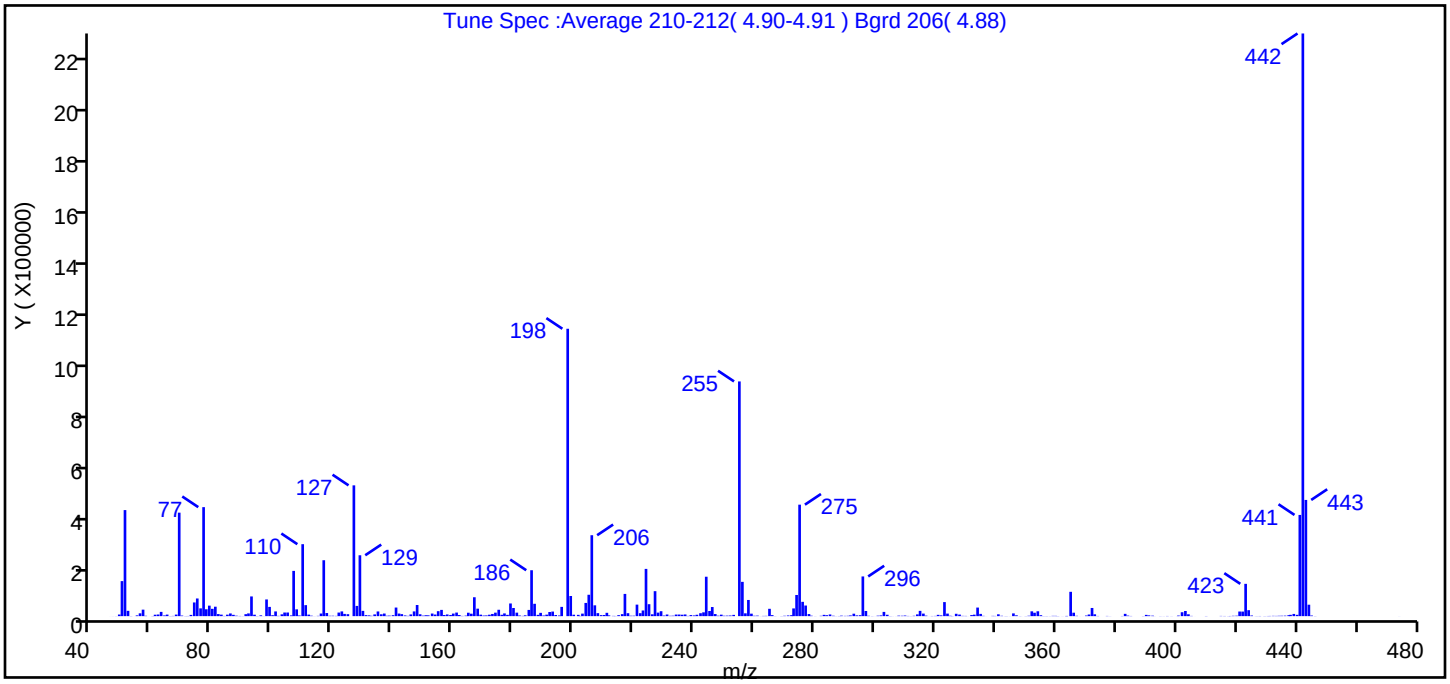
MSS_RVDFTPP_00009 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0400e.D
Injection Date: 24-Feb-2022 16:52:30 Instrument ID: HP23263
Lims ID: DFTPP
Client ID:
Operator ID: kel10217 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270_SIM_HP23263 Limit Group: MSSV - 8270D_E SIM
Tune Method: DFTPP Method 8270D, BP 198

45 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (49.3)
51	10-80% of the base peak	36.9
68	<2% of mass 69	0.5 (1.5)
69	Present	36.0
70	<2% of mass 69	0.2 (0.6)
127	10-80% of the base peak	45.5
197	<2% of mass 198	0.0
199	5-9% of mass 198	7.0
275	10-60% of the base peak	38.8
365	>1% of mass 198	8.5
441	present but <24% of mass 442	35.2 (17.4)
442	base peak, or >50% of 198	202.8
443	15-24% of mass 442	40.4 (19.9)

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0400e.D\8270_SIM_HP23263.rslt\spectr
Injection Date: 24-Feb-2022 16:52:30
Spectrum: Tune Spec :Average 210-212(4.90-4.91) Bgrd 206(4.88)
Base Peak: 442.10
Minimum % Base Peak: 0
Number of Points: 380

m/z	Y	m/z	Y	m/z	Y	m/z	Y
46.00	83	142.00	10026	238.00	960	335.00	8721
47.00	155	143.00	7783	239.00	4139	336.00	1139
48.00	288	144.00	2780	240.00	2759	337.00	144
49.00	6234	145.00	1156	241.00	5322	339.00	1030
50.00	136064	146.00	6650	242.00	11358	340.00	829
51.00	411904	147.00	18400	243.00	14788	341.00	7174
52.00	20616	148.00	43240	244.00	153088	342.00	1343
53.00	498	149.00	7297	245.00	19920	343.00	295
54.00	70	150.00	1983	246.00	35392	344.00	365
55.00	2966	151.00	3480	247.00	8128	345.00	197
56.00	10931	152.00	3103	248.00	1739	346.00	10644
57.00	25216	153.00	10110	249.00	5744	347.00	3232
58.00	1343	154.00	6280	250.00	1620	348.00	391
59.00	33	155.00	19264	251.00	2016	349.00	82
60.00	605	156.00	24280	252.00	2500	350.00	429
61.00	5534	157.00	4343	253.00	4924	351.00	1545
62.00	6291	158.00	6540	255.00	911616	352.00	18720
63.00	16536	159.00	4482	256.00	133184	353.00	13172
64.00	2775	160.00	9990	257.00	10976	354.00	18864
65.00	5982	161.00	13915	258.00	62824	355.00	3602
66.00	583	162.00	4260	259.00	9625	356.00	474
67.00	901	163.00	843	260.00	1513	357.00	532
68.00	6040	164.00	2057	261.00	2034	358.00	329
69.00	401920	165.00	13262	262.00	184	359.00	1101
70.00	2234	166.00	9476	263.00	893	360.00	1078
71.00	501	167.00	73408	264.00	1077	361.00	521
72.00	694	168.00	29064	265.00	28504	362.00	186
73.00	4834	169.00	5706	266.00	3943	364.00	564
74.00	53152	170.00	2297	267.00	357	364.00	880
75.00	68608	171.00	2780	268.00	49	365.00	94504
76.00	30200	172.00	5569	269.00	462	366.00	13364
77.00	423360	173.00	8497	270.00	1445	367.00	1297
78.00	26728	174.00	13544	271.00	2615	368.00	92

Report Date: 24-Feb-2022 20:43:03 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0400e.D\8270_SIM_HP23263.rslt\spectr
Injection Date: 24-Feb-2022 16:52:30
Spectrum: Tune Spec :Average 210-212(4.90-4.91) Bgrd 206(4.88)
Base Peak: 442.10
Minimum % Base Peak: 0
Number of Points: 380

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	40792	175.00	24784	272.00	3780	369.00	62
80.00	28408	176.00	5260	273.00	29992	370.00	2294
81.00	36672	177.00	10642	274.00	82184	371.00	6321
82.00	8047	178.00	5037	275.00	432960	372.00	31744
83.00	5855	179.00	49232	276.00	55584	373.00	7136
84.00	809	180.00	31600	277.00	41232	374.00	751
85.00	5735	181.00	13580	278.00	8119	377.00	798
86.00	10471	182.00	2532	279.00	1733	378.00	270
87.00	5126	183.00	989	280.00	275	382.00	663
88.00	1764	184.00	3220	282.00	1331	383.00	8916
89.00	768	185.00	24152	283.00	5022	384.00	2067
90.00	341	186.00	178304	284.00	3711	385.00	721
91.00	7620	187.00	47968	285.00	6492	389.00	500
92.00	10618	188.00	4995	286.00	1579	390.00	4919
93.00	76536	189.00	12749	287.00	321	391.00	2955
94.00	5564	190.00	2500	288.00	628	392.00	1900
95.00	524	191.00	5734	289.00	1919	393.00	208
96.00	3100	192.00	16059	290.00	1062	395.00	374
97.00	307	193.00	17776	291.00	1386	396.00	228
98.00	64848	194.00	4348	292.00	2746	397.00	690
99.00	35928	195.00	2558	293.00	9474	398.00	269
100.00	3624	196.00	35944	294.00	3010	400.00	222
101.00	18328	198.00	1116160	295.00	3597	401.00	2296
102.00	1126	199.00	78232	296.00	154176	402.00	15167
103.00	7009	200.00	5531	297.00	20000	403.00	19968
104.00	14049	202.00	5045	298.00	1424	404.00	7235
105.00	14111	202.00	943	299.00	439	405.00	916
106.00	2827	203.00	9815	300.00	126	406.00	54
107.00	175744	204.00	51312	301.00	1773	410.00	586
108.00	26384	205.00	83032	302.00	2833	415.00	863
109.00	2597	206.00	314304	303.00	16472	416.00	651
110.00	279488	207.00	42000	304.00	5350	417.00	422
111.00	42712	208.00	11652	305.00	487	418.00	699
112.00	5841	209.00	4032	306.00	167	419.00	1308

Report Date: 24-Feb-2022 20:43:03 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0400e.D\8270_SIM_HP23263.rslt\spectr
Injection Date: 24-Feb-2022 16:52:30
Spectrum: Tune Spec :Average 210-212(4.90-4.91) Bgrd 206(4.88)
Base Peak: 442.10
Minimum % Base Peak: 0
Number of Points: 380

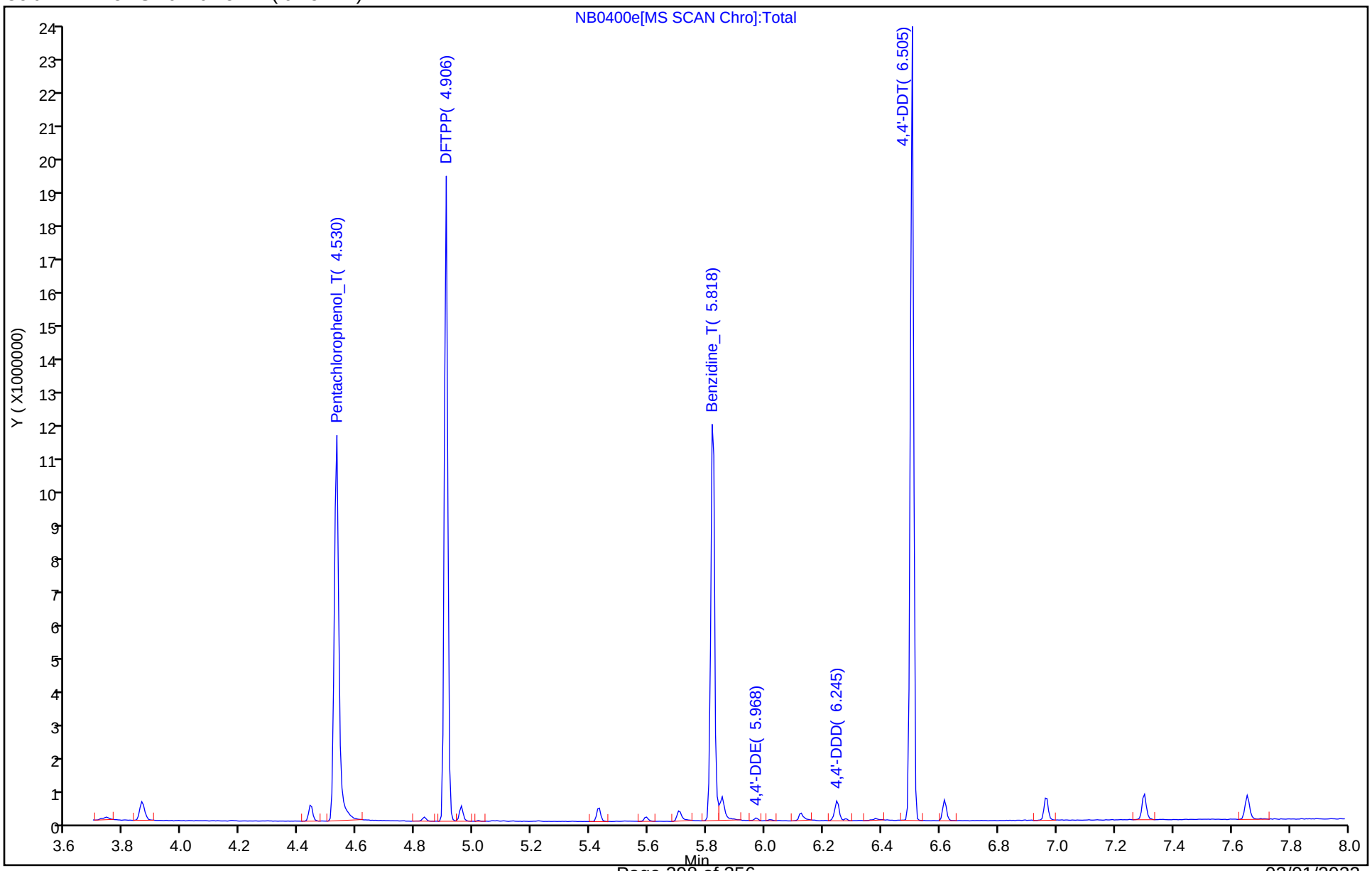
m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	1770	210.00	4468	307.00	147	420.00	1671
114.00	255	211.00	12953	308.00	1898	421.00	17952
115.00	1091	212.00	3042	309.00	1540	422.00	17760
116.00	10167	213.00	977	310.00	2389	423.00	125464
117.00	217152	214.00	726	311.00	823	424.00	23216
118.00	12095	215.00	3819	312.00	364	425.00	2513
119.00	1437	216.00	7718	313.00	1382	426.00	115
120.00	1554	217.00	86344	314.00	6787	427.00	390
121.00	989	218.00	11456	315.00	20504	428.00	625
122.00	13888	219.00	1660	316.00	9903	429.00	484
123.00	18416	220.00	1743	317.00	1955	430.00	640
124.00	8696	221.00	44728	318.00	110	431.00	808
125.00	7587	222.00	11443	319.00	652	432.00	1127
127.00	507968	223.00	22032	320.00	939	433.00	949
128.00	39712	224.00	183488	321.00	5089	434.00	1368
129.00	236480	225.00	46368	322.00	2888	435.00	1578
130.00	20472	226.00	7147	323.00	54560	436.00	1937
131.00	3891	227.00	96992	324.00	9892	437.00	3800
132.00	3080	228.00	13646	325.00	1487	438.00	5139
133.00	1354	229.00	19184	326.00	635	439.00	8570
134.00	6729	230.00	2292	327.00	9160	440.00	5106
135.00	18184	231.00	6336	328.00	6089	441.00	393088
136.00	7187	232.00	1402	329.00	1082	442.00	2263040
137.00	10100	233.00	1800	330.00	897	443.00	451328
138.00	1521	234.00	6169	331.00	146	444.00	44408
139.00	2053	235.00	6200	332.00	4145	445.00	2502
140.00	3637	236.00	5504	333.00	5763	446.00	417
141.00	33368	237.00	6517	334.00	33304	474.00	144

Report Date: 24-Feb-2022 20:43:03 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0400e.D				
Injection Date:	24-Feb-2022 16:52:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	DFTPP			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Breakdown Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0400e.D				
Injection Date:	24-Feb-2022 16:52:30	Instrument ID:	HP23263		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

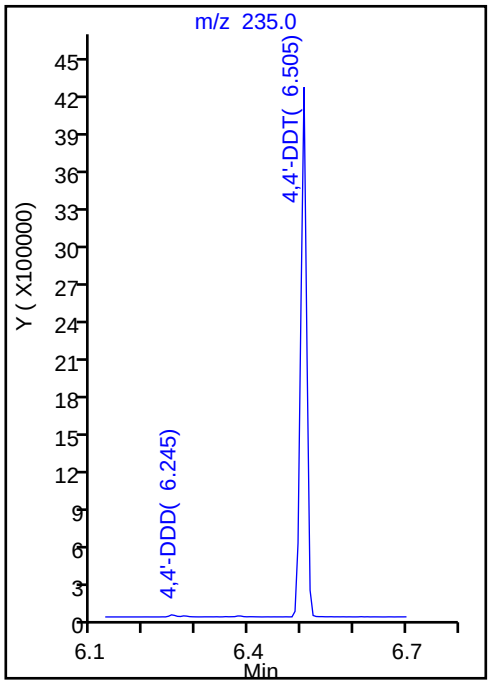
49 4,4'-DDT, Detector: MS SCAN

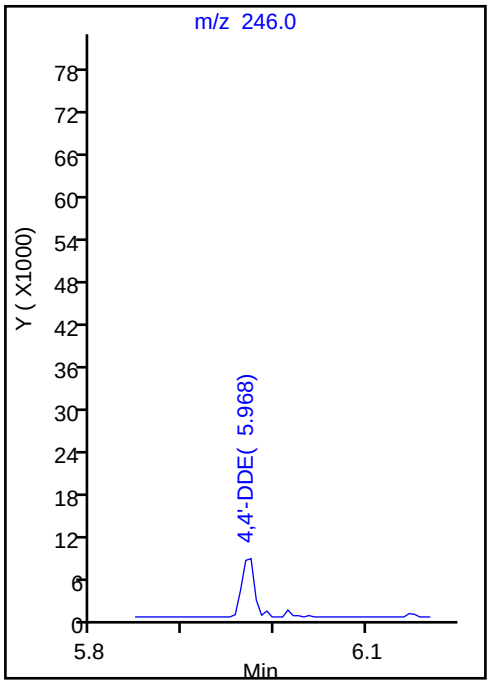
SW-846 Method

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

49 4,4'-DDT, Area = 3348051
47 4,4'-DDE, Area = 8752
48 4,4'-DDD, Area = 21808

%Breakdown: 0.90%, <= 20.00%
Passed





Peak Tailing Report

Eurofins Lancaster Laboratories Env, LLC

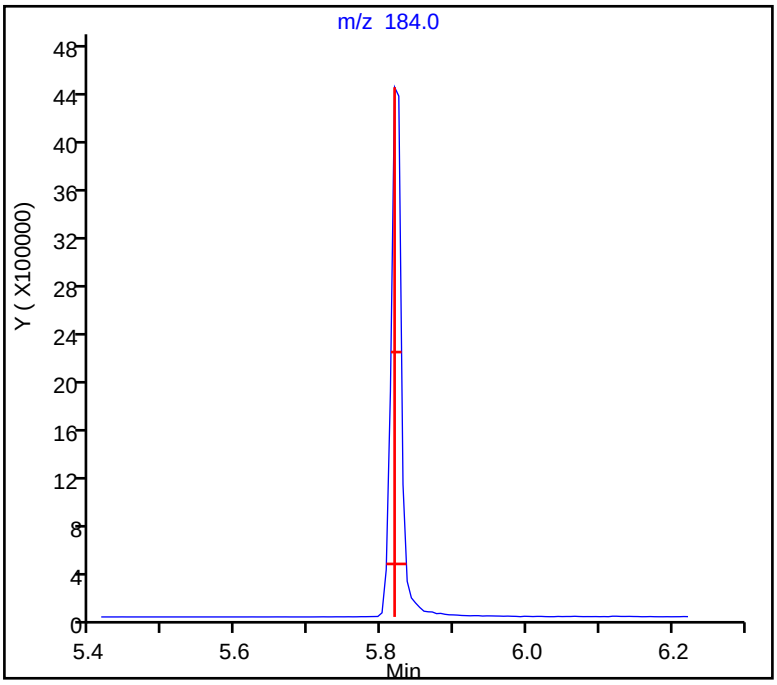
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0400e.D				
Injection Date:	24-Feb-2022 16:52:30	Instrument ID:	HP23263		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

46 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.016 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 1.45, Max. Tailing <= 2.00
Passed



Peak Tailing Report

Eurofins Lancaster Laboratories Env, LLC

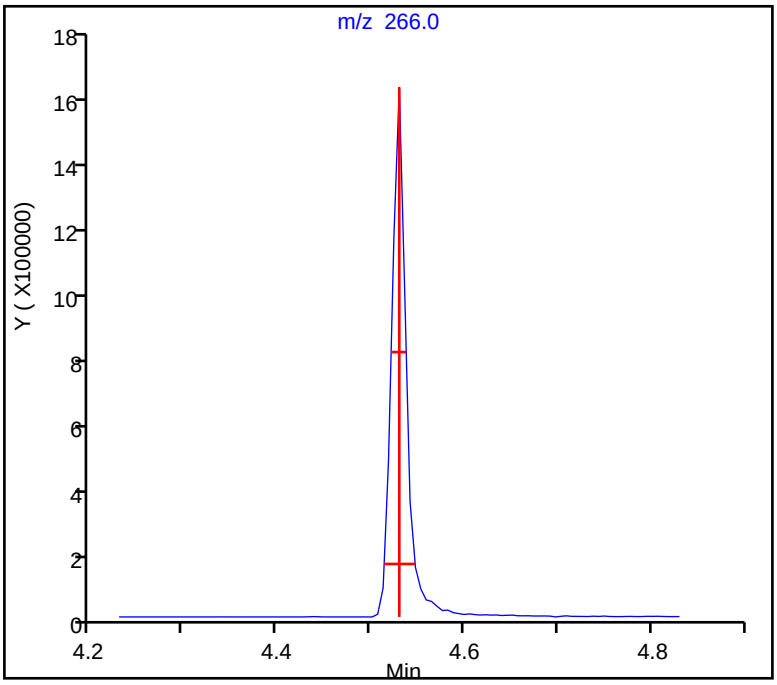
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0400e.D				
Injection Date:	24-Feb-2022 16:52:30	Instrument ID:	HP23263		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

44 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.017 (min.)
Front Width = 0.016 (min.)

Tailing Factor = 1.06, Max. Tailing <= 2.00
Passed



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0420.D				
Lims ID:	DFTPP				
Client ID:					
Sample Type:	DFTPP				
Inject. Date:	24-Feb-2022 21:00:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	DFTPP				
Misc. Info.:	410-0051157-001				
Operator ID:	kel10217	Instrument ID:	HP23263		
Method:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\8270_SIM_HP23263.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	24-Feb-2022 21:59:22	Calib Date:	24-Feb-2022 19:10:30		
Integrator:	Falcon	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Column 1 :	DB-5MS 20m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1641				

First Level Reviewer: luttek Date: 24-Feb-2022 21:16:36

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
44 Pentachlorophenol_T	266	4.530	4.530	0.000	95	1732816	NR	NR	
45 DFTPP									
46 Benzidine_T	184	5.818	5.818	0.000	98	4594696	NR	NR	
47 4,4'-DDE	246	5.968	5.968	0.000	74	8988		NR	
48 4,4'-DDD	235	6.251	6.251	0.000	88	18799		NR	
49 4,4'-DDT	235	6.505	6.505	0.000	97	3256941	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

8 - Failed MS Tune Ratio Test

Reagents:

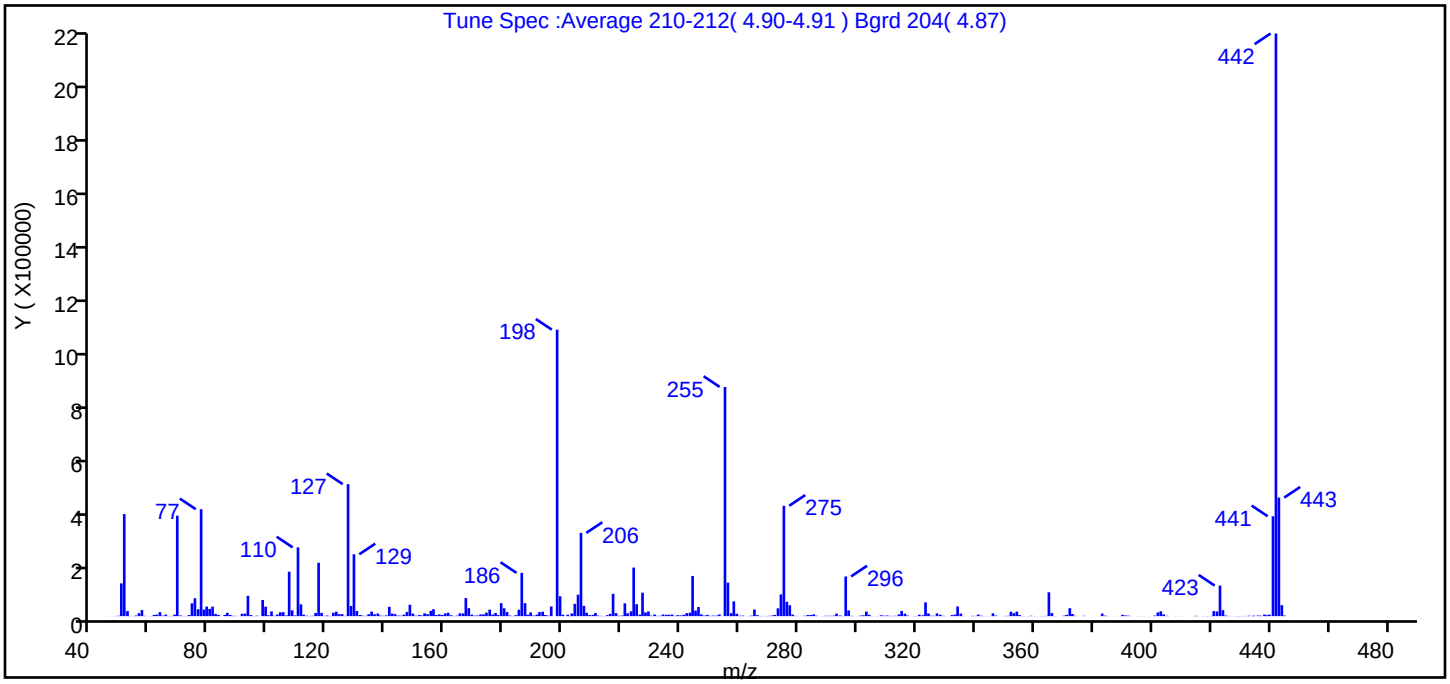
MSS_RVDFTPP_00009 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0420.D				
Injection Date:	24-Feb-2022 21:00:30	Instrument ID:	HP23263		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Tune Method:	DFTPP Method 8270D, BP 198				

45 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (49.2)
51	10-80% of the base peak	35.6
68	<2% of mass 69	0.5 (1.5)
69	Present	35.1
70	<2% of mass 69	0.2 (0.7)
127	10-80% of the base peak	46.1
197	<2% of mass 198	0.0
199	5-9% of mass 198	6.9
275	10-60% of the base peak	38.5
365	>1% of mass 198	8.3
441	present but <24% of mass 442	34.9 (17.1)
442	base peak, or >50% of 198	203.4
443	15-24% of mass 442	41.4 (20.3)

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0420.D\8270_SIM_HP23263.rslt\spectra
Injection Date: 24-Feb-2022 21:00:30
Spectrum: Tune Spec :Average 210-212(4.90-4.91) Bgrd 204(4.87)
Base Peak: 442.10
Minimum % Base Peak: 0
Number of Points: 377

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	181	142.00	9521	238.00	1339	342.00	1721
46.00	60	143.00	7175	239.00	3507	343.00	479
47.00	157	144.00	1950	240.00	2757	344.00	173
48.00	530	145.00	1670	241.00	4860	345.00	350
49.00	1495	146.00	5715	242.00	10912	346.00	10375
50.00	119216	147.00	15456	243.00	12470	347.00	2063
51.00	371264	148.00	41480	244.00	146176	348.00	112
52.00	18632	149.00	9193	245.00	20312	350.00	755
53.00	589	150.00	1836	246.00	33224	351.00	1335
54.00	354	151.00	3974	247.00	6482	352.00	16247
55.00	2246	152.00	2385	248.00	2123	353.00	10759
56.00	10778	153.00	10250	249.00	4428	354.00	16243
57.00	22152	154.00	7097	250.00	1126	355.00	4136
58.00	1046	155.00	19152	251.00	2107	356.00	417
59.00	248	156.00	25192	252.00	2117	357.00	374
60.00	507	157.00	4134	253.00	6014	358.00	400
61.00	4241	158.00	5978	255.00	833856	359.00	1454
62.00	5709	159.00	4301	256.00	121920	360.00	414
63.00	14445	160.00	9987	257.00	10577	361.00	128
64.00	1915	161.00	12395	258.00	53672	362.00	325
65.00	5653	162.00	3209	259.00	8703	363.00	476
66.00	562	163.00	1004	260.00	1641	364.00	1064
67.00	492	164.00	1948	261.00	1950	365.00	86776
68.00	5513	165.00	10303	263.00	585	366.00	11175
69.00	365504	166.00	9858	264.00	1762	367.00	590
70.00	2598	167.00	65696	265.00	24288	370.00	42
71.00	373	168.00	28968	266.00	3713	370.00	1641
72.00	584	169.00	5384	267.00	465	371.00	4759
73.00	4213	170.00	2061	268.00	750	372.00	28976
74.00	46792	171.00	2304	269.00	532	373.00	7771
75.00	65080	172.00	6083	270.00	1350	374.00	1142
76.00	24944	173.00	6434	271.00	2547	375.00	105
77.00	388992	174.00	12788	272.00	4280	377.00	1379

Report Date: 24-Feb-2022 21:59:23 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0420.D\8270_SIM_HP23263.rslt\spectra
Injection Date: 24-Feb-2022 21:00:30
Spectrum: Tune Spec :Average 210-212(4.90-4.91) Bgrd 204(4.87)
Base Peak: 442.10
Minimum % Base Peak: 0
Number of Points: 377

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	24144	175.00	23768	273.00	28416	381.00	203
79.00	34848	176.00	5879	274.00	79064	382.00	131
80.00	26272	177.00	11393	275.00	401472	383.00	9363
81.00	34624	178.00	3762	276.00	52304	384.00	1936
82.00	8158	179.00	47296	277.00	39680	385.00	731
83.00	4496	180.00	28600	278.00	5734	389.00	326
85.00	4319	181.00	14640	279.00	1113	390.00	4846
86.00	11976	182.00	2174	282.00	1396	391.00	2709
87.00	4484	183.00	954	283.00	3993	392.00	1750
88.00	1233	184.00	3666	284.00	4075	393.00	227
89.00	950	185.00	23368	285.00	6441	395.00	242
90.00	93	186.00	157376	286.00	1699	396.00	206
91.00	8462	187.00	47336	288.00	468	397.00	302
92.00	9167	188.00	5117	289.00	1303	398.00	66
93.00	74160	189.00	13496	290.00	1210	399.00	207
94.00	4223	190.00	2233	291.00	1343	401.00	2147
95.00	638	191.00	5422	292.00	1965	402.00	13321
96.00	1728	192.00	14792	293.00	9060	403.00	17576
98.00	58856	193.00	16219	294.00	2399	404.00	6333
99.00	34312	194.00	4114	295.00	716	405.00	1267
100.00	3135	195.00	1809	296.00	144384	406.00	57
101.00	17016	196.00	35144	297.00	20648	408.00	363
102.00	1432	198.00	1042176	298.00	1131	410.00	385
103.00	6077	199.00	72248	299.00	201	414.00	381
104.00	14094	200.00	5105	300.00	266	415.00	1319
105.00	14291	202.00	5257	301.00	2235	416.00	295
106.00	2680	202.00	541	302.00	2880	417.00	494
107.00	161728	203.00	9803	303.00	16672	419.00	185
108.00	21160	204.00	44768	304.00	4693	419.00	470
109.00	2462	205.00	77928	305.00	451	420.00	924
110.00	250112	206.00	302848	307.00	435	421.00	18360
111.00	42816	207.00	37424	308.00	3109	422.00	17112
112.00	5322	208.00	12223	309.00	1860	423.00	111168
113.00	1807	209.00	3916	310.00	2453	424.00	21744

Report Date: 24-Feb-2022 21:59:23 Chrom Revision: 2.3 16-Feb-2022 17:52:00
Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0420.D\8270_SIM_HP23263.rslt\spectra
Injection Date: 24-Feb-2022 21:00:30
Spectrum: Tune Spec :Average 210-212(4.90-4.91) Bgrd 204(4.87)
Base Peak: 442.10
Minimum % Base Peak: 0
Number of Points: 377

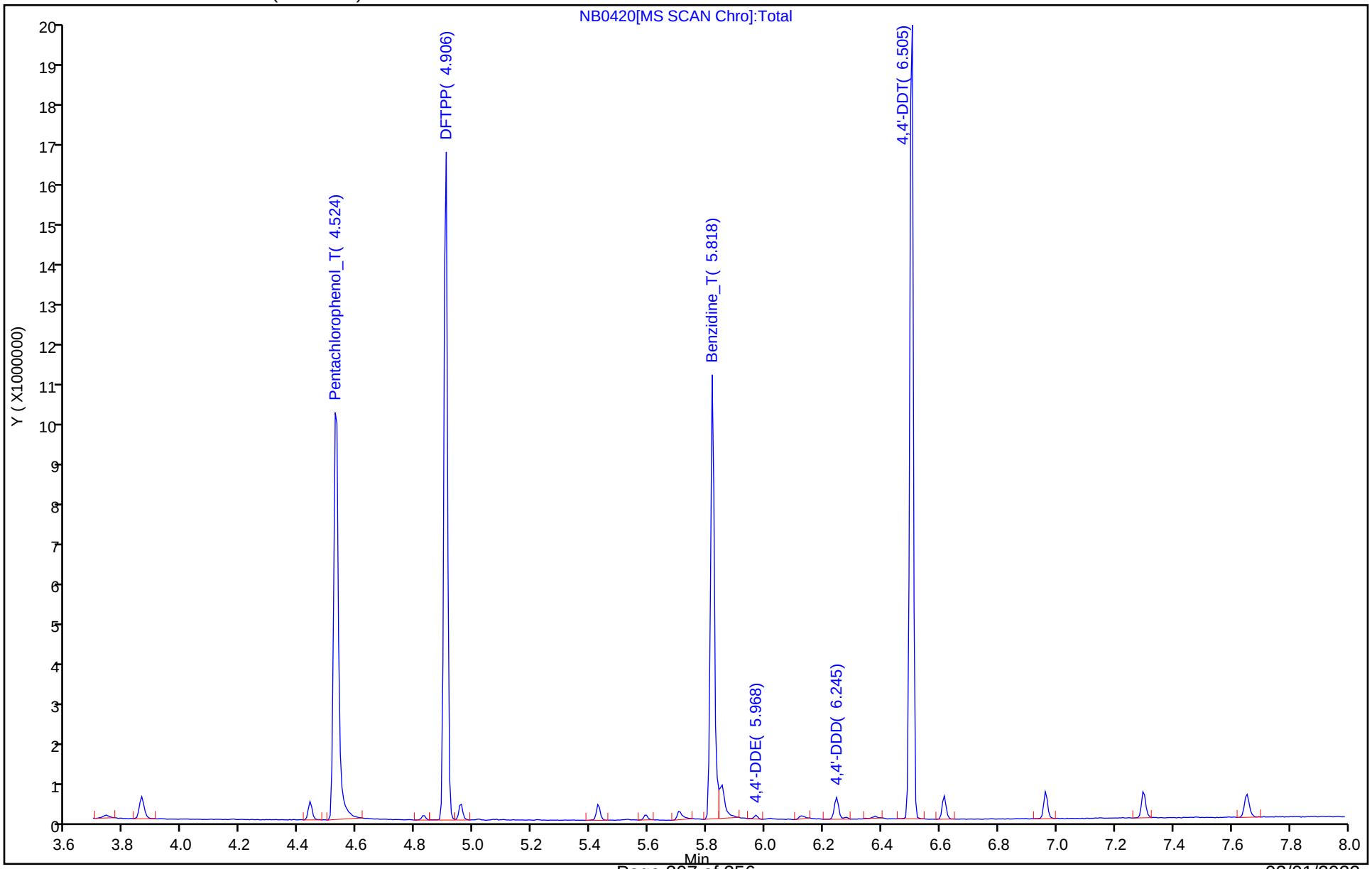
m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	578	210.00	4577	311.00	893	425.00	2263
115.00	1316	211.00	11616	312.00	869	426.00	420
116.00	11563	212.00	2176	313.00	1302	427.00	270
117.00	194240	213.00	1000	314.00	6403	428.00	338
118.00	11897	214.00	485	315.00	18656	429.00	512
119.00	1177	215.00	3489	316.00	8942	430.00	542
120.00	2142	216.00	8055	317.00	2110	431.00	764
121.00	603	217.00	81152	319.00	444	432.00	792
122.00	12304	218.00	11140	320.00	693	433.00	1522
123.00	16099	219.00	1480	321.00	5284	434.00	1185
124.00	7365	220.00	2118	322.00	3260	435.00	1463
125.00	7276	221.00	46784	323.00	49976	436.00	2231
126.00	981	222.00	10599	324.00	9927	437.00	1720
127.00	480128	223.00	17584	325.00	1496	438.00	5800
128.00	37056	224.00	176704	326.00	1300	439.00	3384
129.00	225024	225.00	43344	327.00	9789	440.00	5562
130.00	18840	226.00	5373	328.00	5138	441.00	363392
131.00	3988	227.00	85360	329.00	1259	442.00	2119680
132.00	1688	228.00	13456	330.00	332	443.00	431232
133.00	1211	229.00	17104	332.00	3941	444.00	40112
134.00	6842	230.00	2214	333.00	5426	445.00	2210
135.00	16608	231.00	5848	334.00	35328	446.00	95
136.00	6859	232.00	1137	335.00	9251	447.00	61
137.00	9506	233.00	1369	336.00	553	475.00	56
138.00	2161	234.00	6097	338.00	67	489.00	71
139.00	1303	235.00	4573	339.00	1157		
140.00	2840	236.00	5194	340.00	954		
141.00	33944	237.00	5763	341.00	5845		

Report Date: 24-Feb-2022 21:59:23 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0420.D				
Injection Date:	24-Feb-2022 21:00:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	DFTPP			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Breakdown Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0420.D				
Injection Date:	24-Feb-2022 21:00:30	Instrument ID:	HP23263		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

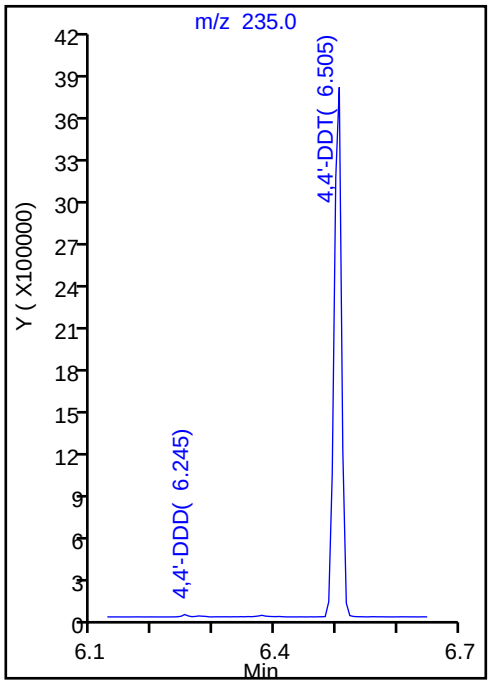
49 4,4'-DDT, Detector: MS SCAN

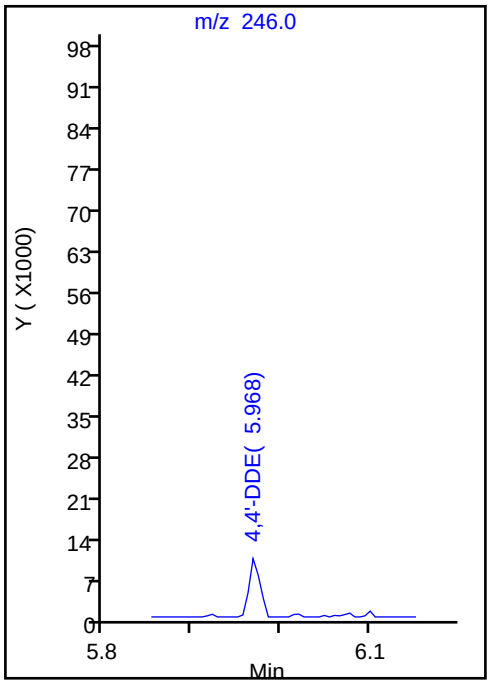
SW-846 Method

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

49 4,4'-DDT, Area = 3256941
47 4,4'-DDE, Area = 8988
48 4,4'-DDD, Area = 18799

%Breakdown: 0.85%, <= 20.00%
Passed





Peak Tailing Report

Eurofins Lancaster Laboratories Env, LLC

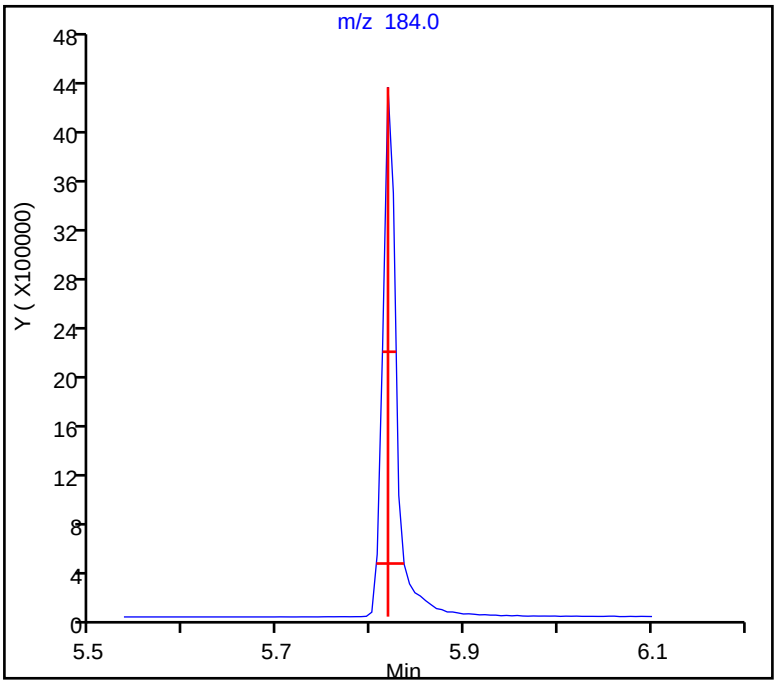
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0420.D				
Injection Date:	24-Feb-2022 21:00:30	Instrument ID:	HP23263		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

46 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.017 (min.)
Front Width = 0.012 (min.)

Tailing Factor = 1.42, Max. Tailing <= 2.00
Passed



Peak Tailing Report

Eurofins Lancaster Laboratories Env, LLC

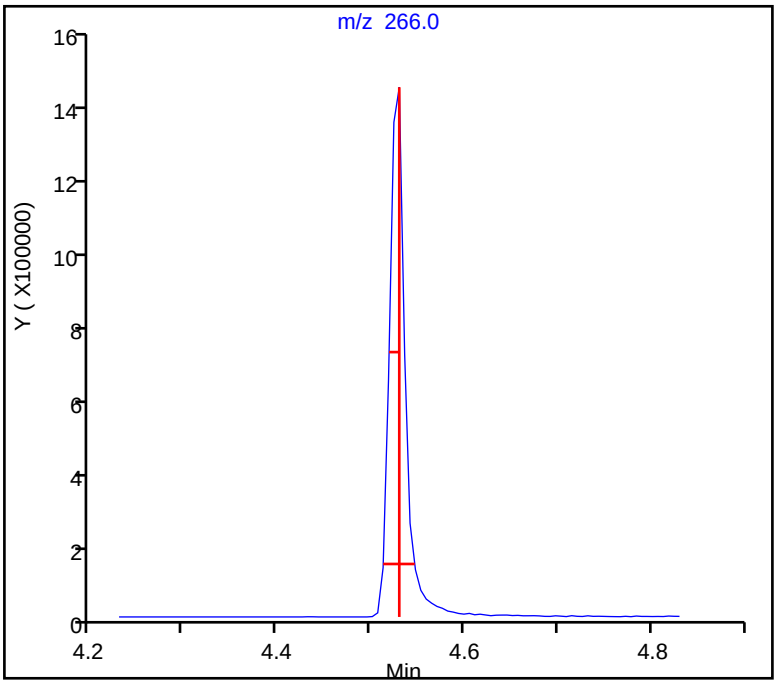
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0420.D				
Injection Date:	24-Feb-2022 21:00:30	Instrument ID:	HP23263		
Lims ID:	DFTPP				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

44 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.017 (min.)
Front Width = 0.017 (min.)

Tailing Factor = 1.00, Max. Tailing <= 2.00
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-225699/1-A

Matrix: Solid Lab File ID: IB0802.D

Analysis Method: 8270D SIM Date Collected:

Extract. Method: 3546 Date Extracted: 02/20/2022 19:08

Sample wt/vol: 30.00(g) Date Analyzed: 02/21/2022 20:00

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

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

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

Analysis Batch No.: 226084 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		3.0	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
63466-71-7	Benzo(a)pyrene-d12 (Surr)	100		36-119
38072-94-5	1-Methylnaphthalene-d10 (Surr)	94		37-110
93951-69-0	Fluoranthene-d10 (Surr)	98		41-135

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0802.D				
Lims ID:	MB 410-225699/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	21-Feb-2022 20:00:30	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 410-225699/1-A				
Misc. Info.:	410-0050850-003				
Operator ID:	art12405	Instrument ID:	HP10976		

Method:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\8270_SIM_HP10976.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	22-Feb-2022 03:44:53	Calib Date:	21-Feb-2022 08:48:30
Integrator:	Falcon	ID Type:	RT Order ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D		

Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Det: MS SCAN
Process Host:	CTX1678	

First Level Reviewer: gamblerj Date: 22-Feb-2022 03:30:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	88	112307	1.00	1.00	
* 5 Naphthalene-d8	136	9.546	9.546	0.000	99	336220	1.00	1.00	
$ 9 1-Methylnaphthalene-d10	152	10.507	10.518	0.000	99	182058	1.00	0.9392	
* 13 Acenaphthene-d10	164	11.735	11.735	0.000	100	213684	1.00	1.00	
* 20 Phenanthrene-d10	188	13.605	13.605	0.000	100	400272	1.00	1.00	
$ 24 Fluoranthene-d10 (Surr)	212	15.104	15.177	0.000	99	502296	1.00	0.9797	
* 30 Chrysene-d12	240	16.915	16.915	0.000	90	367684	1.00	1.00	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.956	19.041	0.000	99	312487	1.00	1.00	
* 36 Perylene-d12	264	19.096	19.096	0.000	99	333069	1.00	1.00	

QC Flag Legend

Processing Flags

Reagents:

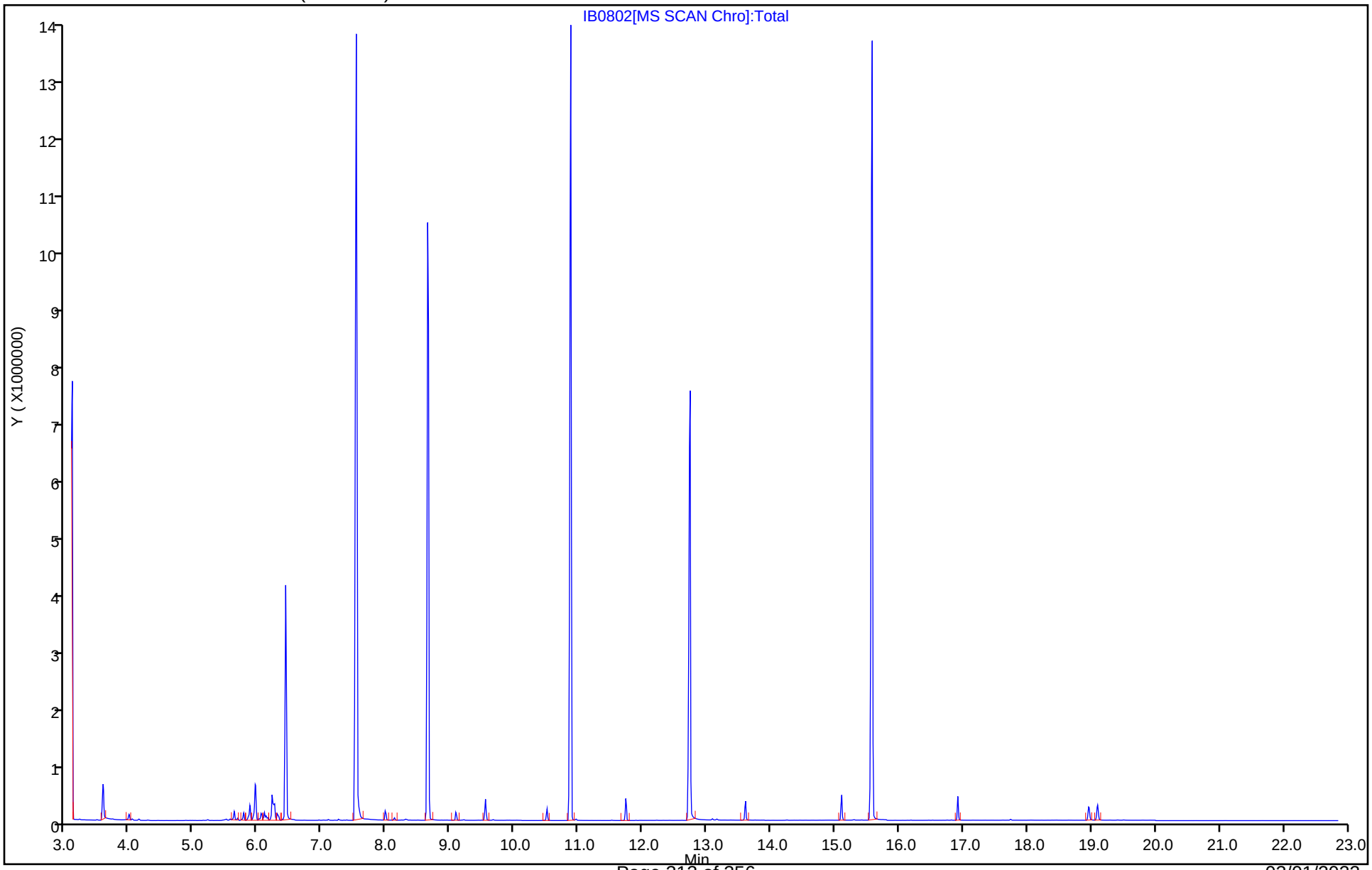
MSS_FVSIM_IS_00014 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 22-Feb-2022 03:58:54 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0802.D				
Injection Date:	21-Feb-2022 20:00:30	Instrument ID:	HP10976	Operator ID:	art12405
Lims ID:	MB 410-225699/1-A			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0802.D				
Lims ID:	MB 410-225699/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	21-Feb-2022 20:00:30	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 410-225699/1-A				
Misc. Info.:	410-0050850-003				
Operator ID:	art12405	Instrument ID:	HP10976		
Method:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\8270_SIM_HP10976.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	22-Feb-2022 03:44:53	Calib Date:	21-Feb-2022 08:48:30		
Integrator:	Falcon	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1678				

First Level Reviewer: gamblerj Date: 22-Feb-2022 03:30:51

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1-Methylnaphthalene-d10	1.00	0.9392	93.92
$ 24 Fluoranthene-d10 (Surr)	1.00	0.9797	97.97
$ 38 Benzo(a)pyrene-d12 (Surr)	1.00	1.00	99.73

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E
Job No.: 410-73279-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 410-226489/1-A
Matrix: Water
Lab File ID: NB0422.D
Analysis Method: 8270D SIM
Date Collected:
Extract. Method: 3510C
Date Extracted: 02/22/2022 16:35
Sample wt/vol: 250(mL)
Date Analyzed: 02/24/2022 22:01
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 227542
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.119	J	0.30	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
63466-71-7	Benzo(a)pyrene-d12 (Surr)	93		10-110
38072-94-5	1-Methylnaphthalene-d10 (Surr)	86		36-111
93951-69-0	Fluoranthene-d10 (Surr)	100		47-128

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0422.D				
Lims ID:	MB 410-226489/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	24-Feb-2022 22:01:30	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 410-226489/1-A				
Misc. Info.:	410-0051157-003				
Operator ID:	kel10217	Instrument ID:	HP23263		
Method:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\8270_SIM_HP23263.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	25-Feb-2022 17:33:52	Calib Date:	24-Feb-2022 19:10:30		
Integrator:	Falcon	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Column 1 :	DB-5MS 20m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1610				
First Level Reviewer: saadehw		Date:	25-Feb-2022 17:16:11		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	1.771	1.762	0.022	85	1210		0.0297	
* 4 1,4-Dichlorobenzene-d4	152	4.517	4.530	-0.013	85	21173	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	66936	0.2500	0.2500	
$ 9 1-Methylnaphthalene-d10	152	6.445	6.445	-0.002	99	28475	0.2500	0.2151	
* 13 Acenaphthene-d10	164	7.376	7.379	-0.003	95	36498	0.2500	0.2500	
* 20 Phenanthrene-d10	188	8.788	8.783	0.005	100	66911	0.2500	0.2500	
$ 24 Fluoranthene-d10 (Surr)	212	9.921	9.921	-0.001	96	67592	0.2500	0.2501	
* 29 Chrysene-d12	240	11.455	11.455	0.000	82	58584	0.2500	0.2500	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.303	13.303	0.007	95	61882	0.2500	0.2329	
* 38 Perylene-d12	264	13.418	13.419	-0.001	94	69461	0.2500	0.2500	

QC Flag Legend

Processing Flags

Reagents:

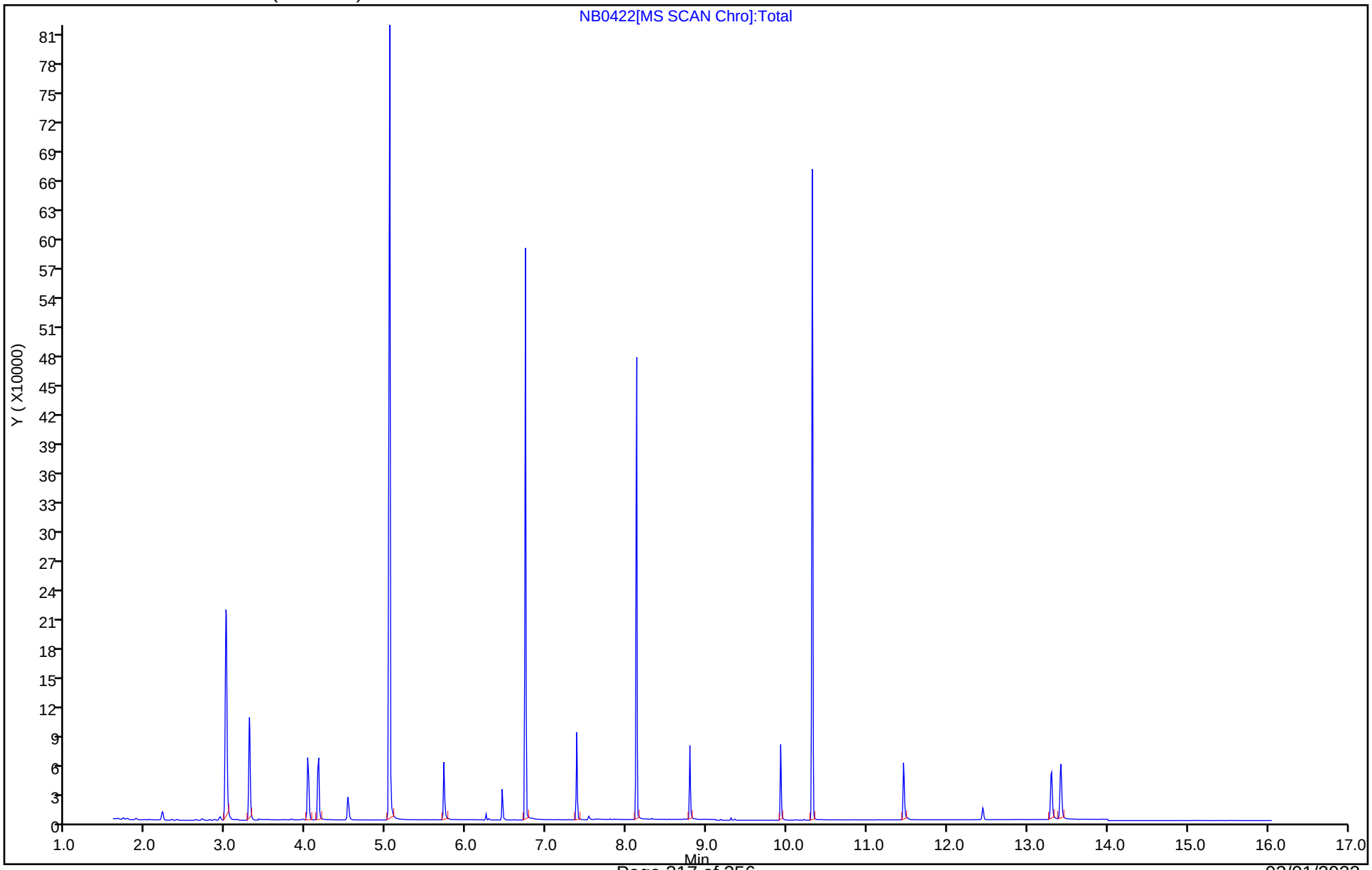
MSS_RVSIM_IS_00021 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 25-Feb-2022 17:33:57 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0422.D				
Injection Date:	24-Feb-2022 22:01:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	MB 410-226489/1-A			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0422.D				
Lims ID:	MB 410-226489/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	24-Feb-2022 22:01:30	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 410-226489/1-A				
Misc. Info.:	410-0051157-003				
Operator ID:	kel10217	Instrument ID:	HP23263		
Method:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\8270_SIM_HP23263.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	25-Feb-2022 17:33:52	Calib Date:	24-Feb-2022 19:10:30		
Integrator:	Falcon	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Column 1 :	DB-5MS 20m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1610				

First Level Reviewer: saadehw Date: 25-Feb-2022 17:16:11

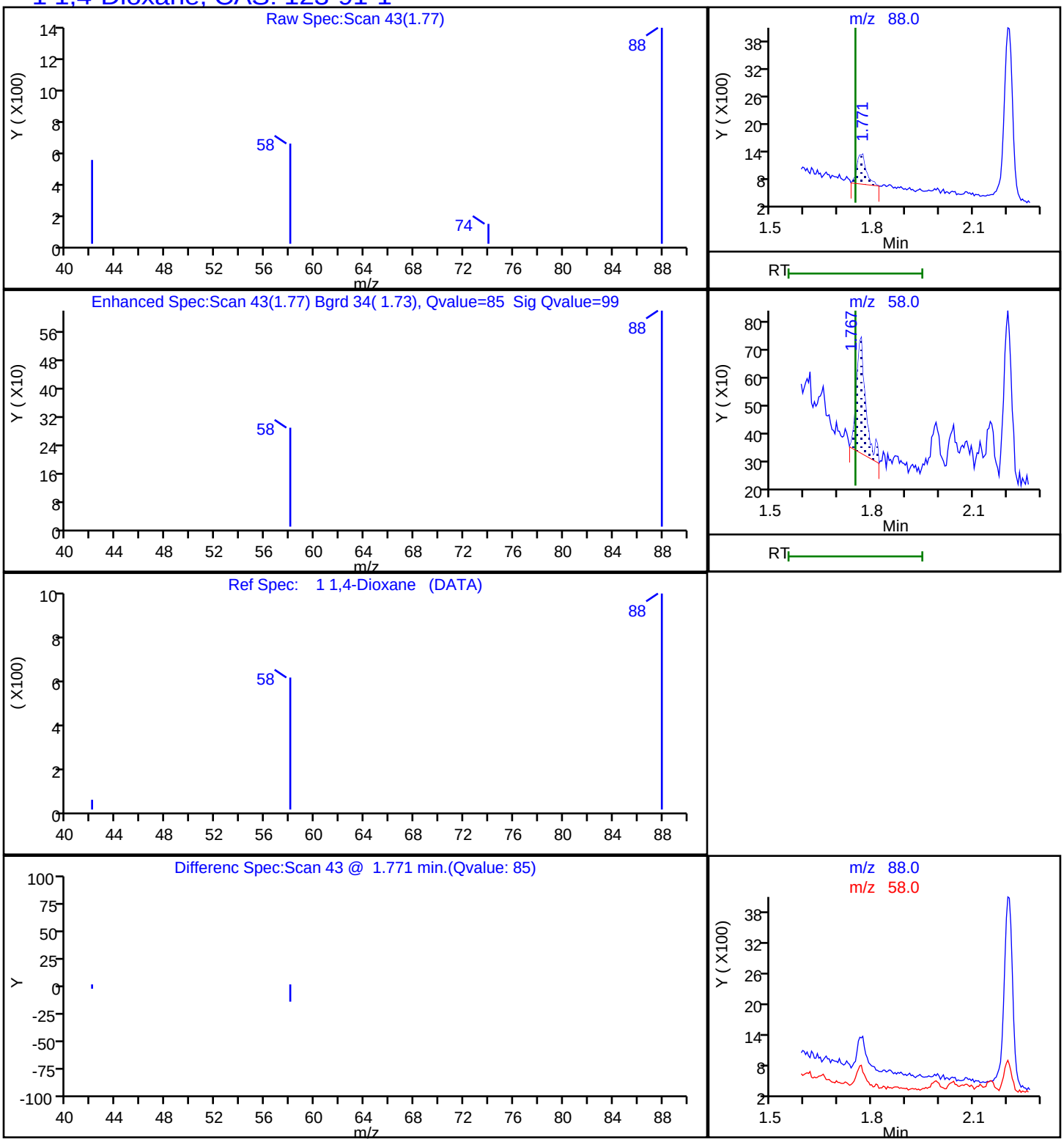
Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1-Methylnaphthalene-d10	0.2500	0.2151	86.05
$ 24 Fluoranthene-d10 (Surr)	0.2500	0.2501	100.03
$ 36 Benzo(a)pyrene-d12 (Surr)	0.2500	0.2329	93.15

Report Date: 25-Feb-2022 17:33:57 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0422.D				
Injection Date:	24-Feb-2022 22:01:30	Instrument ID:	HP23263		
Lims ID:	MB 410-226489/1-A				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-225699/2-A

Matrix: Solid Lab File ID: IB0803.D

Analysis Method: 8270D SIM Date Collected:

Extract. Method: 3546 Date Extracted: 02/20/2022 19:08

Sample wt/vol: 30.00(g) Date Analyzed: 02/21/2022 20:31

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

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

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

Analysis Batch No.: 226084 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	21.7		3.0	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
63466-71-7	Benzo(a)pyrene-d12 (Surr)	99		36-119
38072-94-5	1-Methylnaphthalene-d10 (Surr)	83		37-110
93951-69-0	Fluoranthene-d10 (Surr)	97		41-135

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0803.D				
Lims ID:	LCS 410-225699/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	21-Feb-2022 20:31:30	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 410-225699/2-A				
Misc. Info.:	410-0050850-004				
Operator ID:	art12405	Instrument ID:	HP10976		

Method:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\8270_SIM_HP10976.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	22-Feb-2022 03:44:53	Calib Date:	21-Feb-2022 08:48:30
Integrator:	Falcon	ID Type:	RT Order ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D		

Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Det: MS SCAN
Process Host:	CTX1678	

First Level Reviewer: gamblerj Date: 22-Feb-2022 03:31:36

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 1,4-Dioxane	88	4.010	3.978	0.096	80	46399	1.00	0.6501	
*	4 1,4-Dichlorobenzene-d4	152	7.994	7.994	0.000	86	115135	1.00	1.00	
*	5 Naphthalene-d8	136	9.546	9.546	0.000	98	375098	1.00	1.00	
$	9 1-Methylnaphthalene-d10	152	10.507	10.518	0.000	99	180270	1.00	0.8306	
*	13 Acenaphthene-d10	164	11.734	11.735	-0.001	99	217938	1.00	1.00	
*	20 Phenanthrene-d10	188	13.604	13.605	-0.001	100	401709	1.00	1.00	
$	24 Fluoranthene-d10 (Surr)	212	15.104	15.177	0.000	100	500616	1.00	0.9729	
*	30 Chrysene-d12	240	16.914	16.915	-0.001	96	371605	1.00	1.00	
$	38 Benzo(a)pyrene-d12 (Surr)	264	18.955	19.041	-0.001	99	313527	1.00	0.99	
*	36 Perylene-d12	264	19.096	19.096	0.000	99	335999	1.00	1.00	

QC Flag Legend

Processing Flags

Reagents:

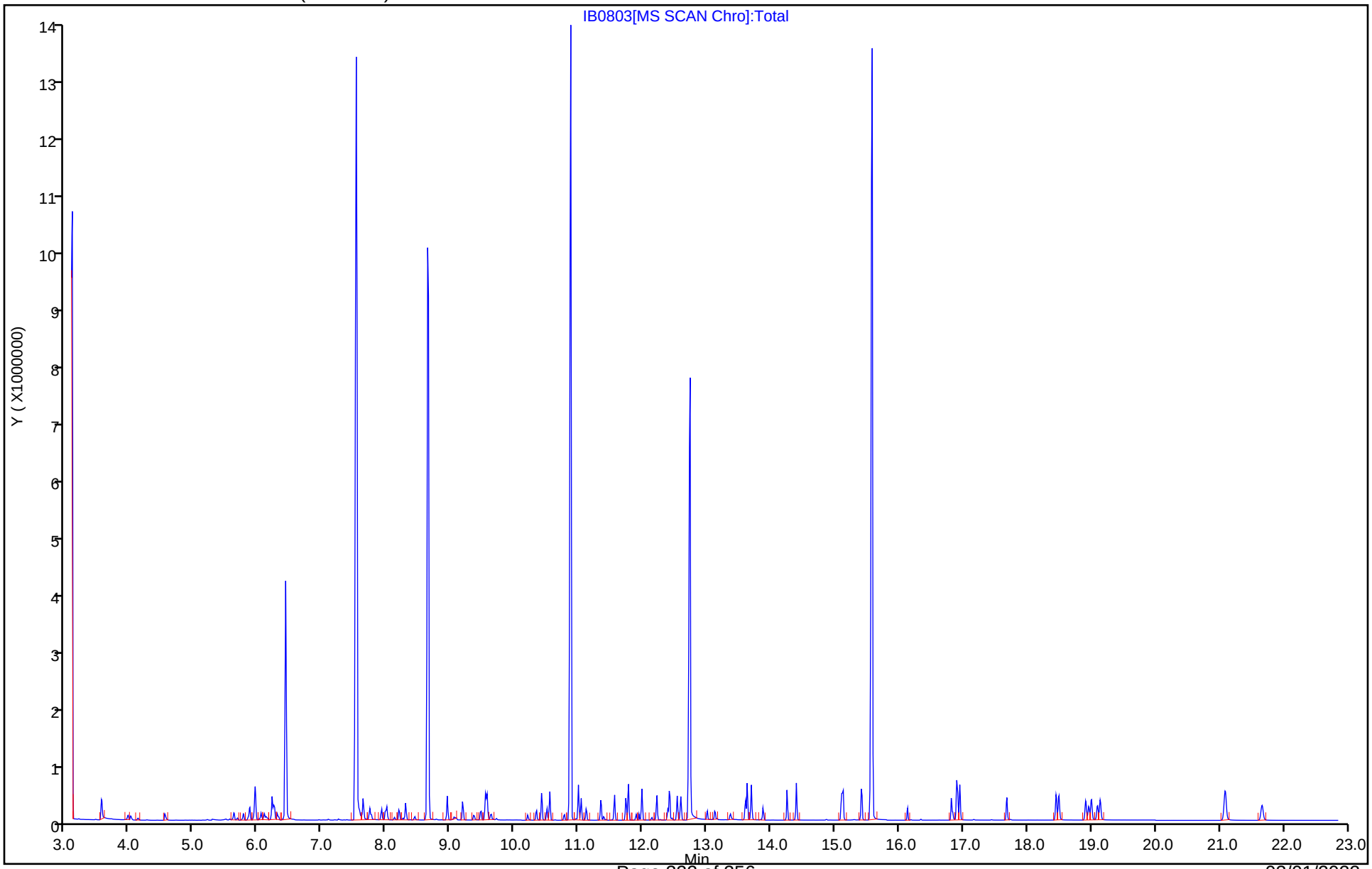
MSS_FVSIM_IS_00014 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 22-Feb-2022 03:58:55 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0803.D				
Injection Date:	21-Feb-2022 20:31:30	Instrument ID:	HP10976	Operator ID:	art12405
Lims ID:	LCS 410-225699/2-A			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\IB0803.D				
Lims ID:	LCS 410-225699/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	21-Feb-2022 20:31:30	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 410-225699/2-A				
Misc. Info.:	410-0050850-004				
Operator ID:	art12405	Instrument ID:	HP10976		

Method:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50850.b\8270_SIM_HP10976.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	22-Feb-2022 03:44:53	Calib Date:	21-Feb-2022 08:48:30
Integrator:	Falcon	ID Type:	RT Order ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D		

Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)		Det: MS SCAN
Process Host:	CTX1678		

First Level Reviewer: gamblerj Date: 22-Feb-2022 03:31:36

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1-Methylnaphthalene-d10	1.00	0.8306	83.06
$ 24 Fluoranthene-d10 (Surr)	1.00	0.9729	97.29
$ 38 Benzo(a)pyrene-d12 (Surr)	1.00	0.99	99.19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-226489/2-A

Matrix: Water Lab File ID: NB0423.D

Analysis Method: 8270D SIM Date Collected:

Extract. Method: 3510C Date Extracted: 02/22/2022 16:35

Sample wt/vol: 250(mL) Date Analyzed: 02/24/2022 22:24

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

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

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

Analysis Batch No.: 227542 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.729		0.30	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
63466-71-7	Benzo(a)pyrene-d12 (Surr)	94		10-110
38072-94-5	1-Methylnaphthalene-d10 (Surr)	75		36-111
93951-69-0	Fluoranthene-d10 (Surr)	104		47-128

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0423.D
Lims ID: LCS 410-226489/2-A
Client ID:
Sample Type: LCS
Inject. Date: 24-Feb-2022 22:24:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: LCS 410-226489/2-A
Misc. Info.: 410-0051157-004
Operator ID: kel10217 Instrument ID: HP23263

Method: \\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\8270_SIM_HP23263.m
Limit Group: MSSV - 8270D_E SIM
Last Update: 25-Feb-2022 17:33:52 Calib Date: 24-Feb-2022 19:10:30
Integrator: Falcon ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D

Column 1 : DB-5MS 20m 0.25mm (0.25 mm) Det: MS SCAN
Process Host: CTX1610

First Level Reviewer: saadehw Date: 25-Feb-2022 17:16:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	1.771	1.762	0.022	96	7006	0.2500	0.1823	
* 4 1,4-Dichlorobenzene-d4	152	4.517	4.530	-0.013	85	19974	0.2500	0.2500	
* 5 Naphthalene-d8	136	5.717	5.717	0.000	100	72473	0.2500	0.2500	
6 Naphthalene	128	5.730	5.742	0.001	87	54502	0.2500	0.1998	M
8 2-Methylnaphthalene	142	6.385	6.397	-0.002	97	40530	0.2500	0.2338	Ma
$ 9 1-Methylnaphthalene-d10	152	6.445	6.445	-0.002	99	26720	0.2500	0.1864	a
10 1-Methylnaphthalene	142	6.475	6.492	-0.002	93	39269	0.2500	0.2387	M
12 Acenaphthylene	152	7.236	7.246	-0.002	98	74935	0.2500	0.2663	
* 13 Acenaphthene-d10	164	7.376	7.379	-0.003	99	36346	0.2500	0.2500	
14 Acenaphthene	154	7.406	7.406	-0.003	92	42222	0.2500	0.2516	
17 Fluorene	166	7.892	7.903	-0.003	97	58263	0.2500	0.2975	
* 20 Phenanthrene-d10	188	8.788	8.783	0.005	99	65714	0.2500	0.2500	
21 Phenanthrene	178	8.811	8.819	0.005	100	86742	0.2500	0.3039	
22 Anthracene	178	8.858	8.865	-0.002	99	84149	0.2500	0.2949	
$ 24 Fluoranthene-d10 (Surr)	212	9.921	9.921	-0.001	95	68982	0.2500	0.2599	
25 Fluoranthene	202	9.940	9.949	0.005	95	100967	0.2500	0.2997	
26 Pyrene	202	10.153	10.160	-0.001	94	104357	0.2500	0.3006	
28 Benzo[a]anthracene	228	11.439	11.447	-0.001	99	91110	0.2500	0.3190	
* 29 Chrysene-d12	240	11.454	11.455	-0.001	93	58578	0.2500	0.2500	
30 Chrysene	228	11.485	11.486	-0.001	100	96258	0.2500	0.3183	
33 Benzo[b]fluoranthene	252	12.866	12.873	-0.001	100	108492	0.2500	0.3222	
34 Benzo[k]fluoranthene	252	12.904	12.911	-0.001	100	112231	0.2500	0.3128	
$ 36 Benzo(a)pyrene-d12 (Surr)	264	13.295	13.303	-0.001	96	61306	0.2500	0.2355	
37 Benzo[a]pyrene	252	13.334	13.341	-0.001	100	93181	0.2500	0.2967	
* 38 Perylene-d12	264	13.418	13.419	-0.001	93	68046	0.2500	0.2500	
40 Indeno[1,2,3-cd]pyrene	276	15.054	15.062	-0.001	93	100443	0.2500	0.3241	
41 Dibenz(a,h)anthracene	278	15.110	15.112	0.006	93	106570	0.2500	0.3020	
42 Benzo[g,h,i]perylene	276	15.513	15.529	-0.008	93	119634	0.2500	0.3075	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

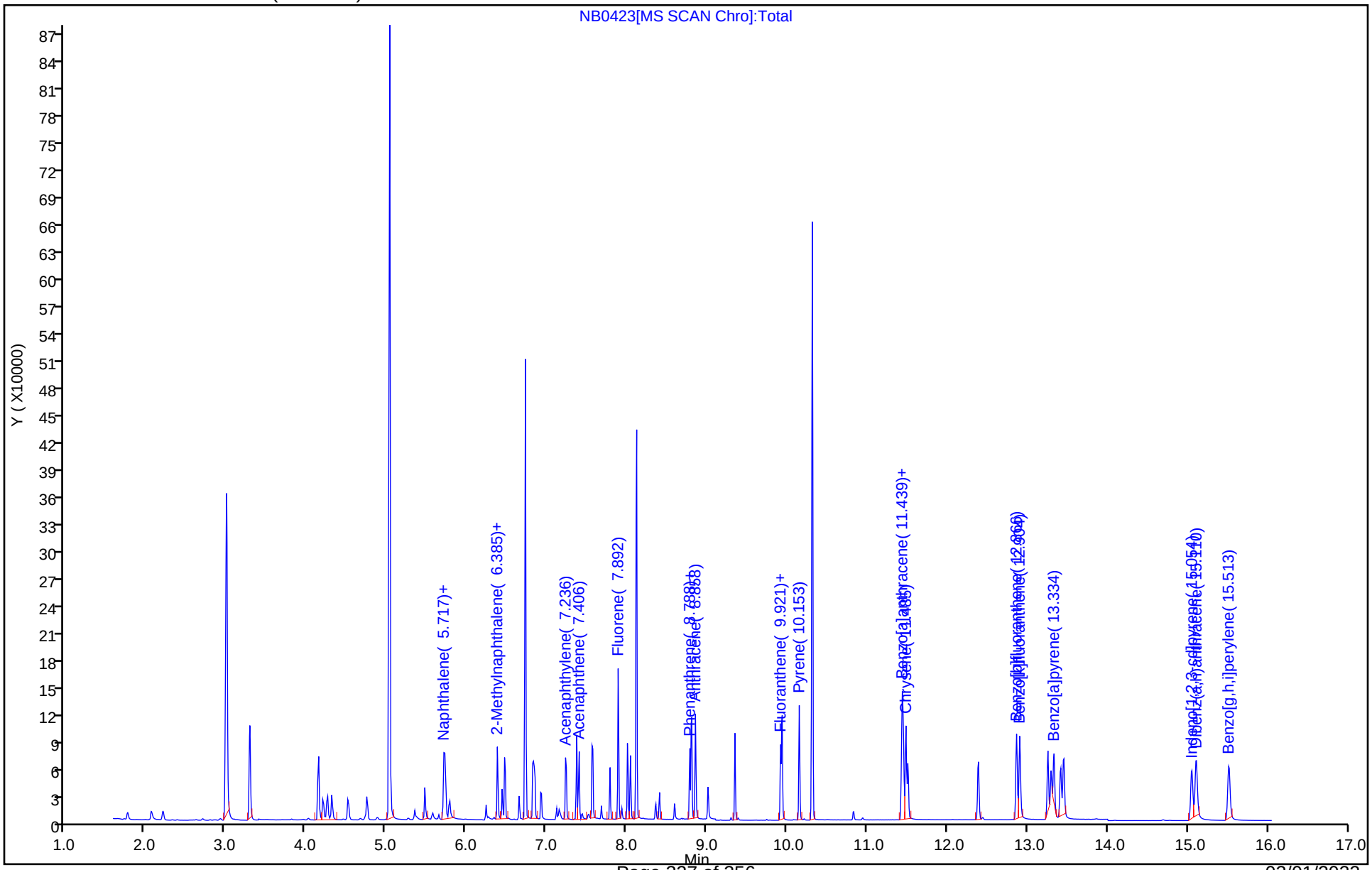
MSS_RVSIM_IS_00021	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 25-Feb-2022 17:33:57 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0423.D				
Injection Date:	24-Feb-2022 22:24:30	Instrument ID:	HP23263	Operator ID:	kel10217
Lims ID:	LCS 410-226489/2-A			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		

Column: DB-5MS 20m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0423.D				
Lims ID:	LCS 410-226489/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	24-Feb-2022 22:24:30	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 410-226489/2-A				
Misc. Info.:	410-0051157-004				
Operator ID:	kel10217	Instrument ID:	HP23263		
Method:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\8270_SIM_HP23263.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	25-Feb-2022 17:33:52	Calib Date:	24-Feb-2022 19:10:30		
Integrator:	Falcon	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51112.b\NB0406.D				
Column 1 :	DB-5MS 20m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1610				

First Level Reviewer: saadehw Date: 25-Feb-2022 17:16:55

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1-Methylnaphthalene-d10	0.2500	0.1864	74.57
$ 24 Fluoranthene-d10 (Surr)	0.2500	0.2599	103.95
$ 36 Benzo(a)pyrene-d12 (Surr)	0.2500	0.2355	94.20

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

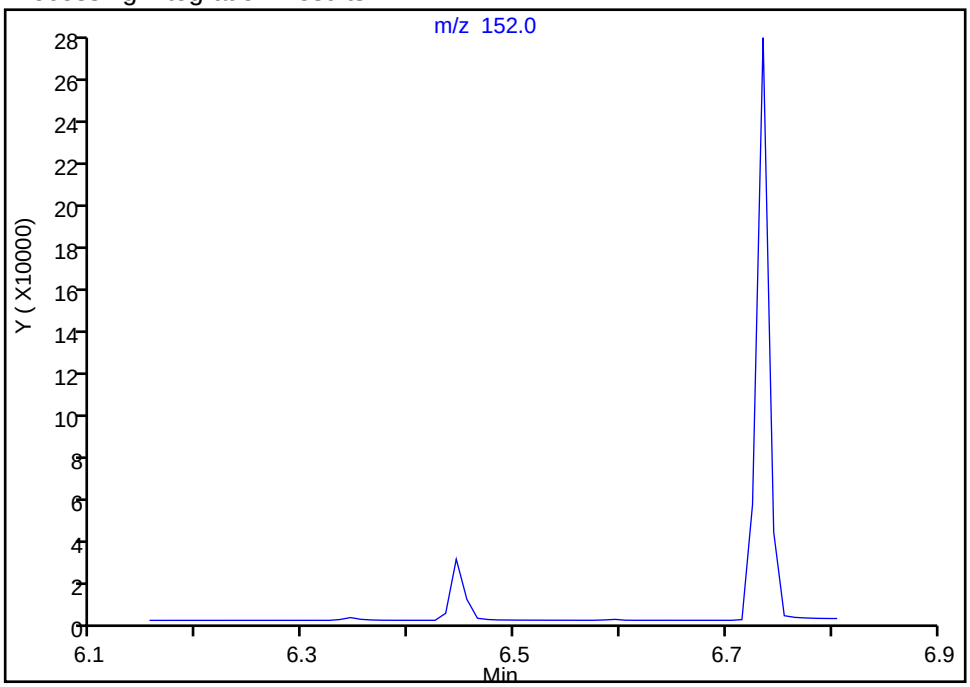
Data File:	\\chromfs\Lancaster\ChromData\HP23263\20220224-51157.b\NB0423.D				
Injection Date:	24-Feb-2022 22:24:30	Instrument ID:	HP23263		
Lims ID:	LCS 410-226489/2-A				
Client ID:					
Operator ID:	kel10217	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP23263	Limit Group:	MSSV - 8270D_E SIM		
Column:	DB-5MS 20m 0.25mm (0.25 mm)	Detector	MS SCAN		

$ 9 1-Methylnaphthalene-d10, CAS: 38072-94-5

Signal: 1

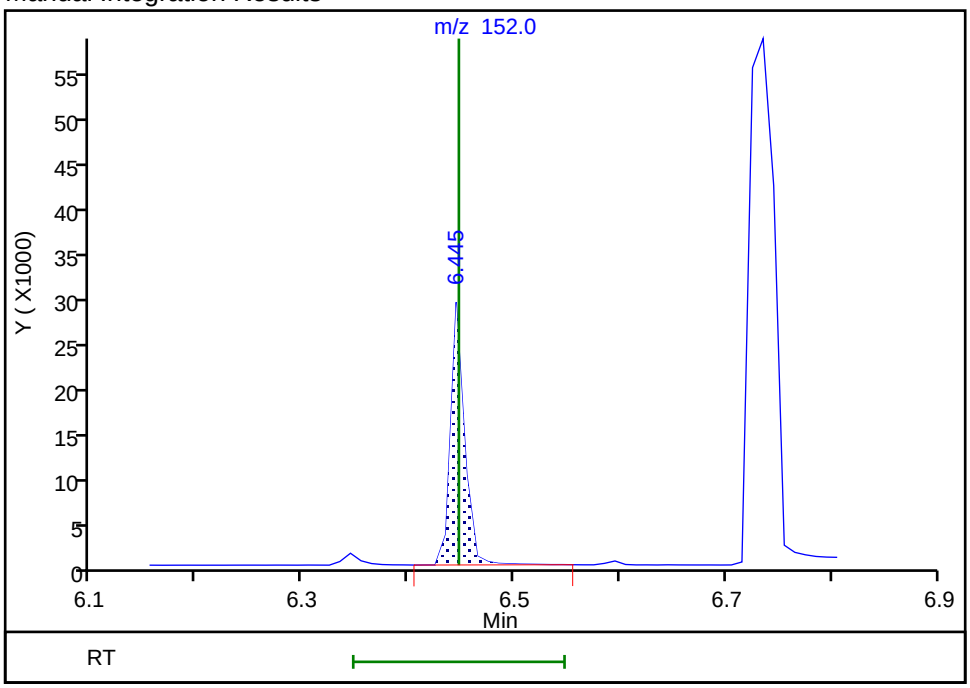
Not Detected
Expected RT: 6.45

Processing Integration Results



RT: 6.44
Area: 26720
Amount: 0.186437
Amount Units: ug/ml

Manual Integration Results



Reviewer: saadehw, 25-Feb-2022 17:16:50
Audit Action: Assigned Compound ID Audit Reason: Split Peak

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Client Sample ID: IMPORT-1-20220216 MS Lab Sample ID: 410-73279-1 MS

Matrix: Solid Lab File ID: IB0878.D

Analysis Method: 8270D SIM Date Collected: 02/16/2022 12:20

Extract. Method: 3546 Date Extracted: 02/20/2022 19:08

Sample wt/vol: 30.12(g) Date Analyzed: 02/22/2022 11:25

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

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

% Moisture: 2.8 GPC Cleanup:(Y/N) N

Analysis Batch No.: 226145 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	18.9		3.1	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
63466-71-7	Benzo(a)pyrene-d12 (Surr)	100		36-119
38072-94-5	1-Methylnaphthalene-d10 (Surr)	80		37-110
93951-69-0	Fluoranthene-d10 (Surr)	100		41-135

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0878.D				
Lims ID:	410-73279-B-1-A MS				
Client ID:	IMPORT-1-20220216				
Sample Type:	MS				
Inject. Date:	22-Feb-2022 11:25:30	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-B-1-A MS				
Misc. Info.:	410-0050858-009				
Operator ID:	jmg00346	Instrument ID:	HP10976		
Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	23-Feb-2022 03:28:49	Calib Date:	21-Feb-2022 08:48:30		
Integrator:	Falcon	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1644				
First Level Reviewer: gamblerj		Date:	23-Feb-2022 03:26:43		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	3.984	3.991	0.121	86	45937	1.00	0.5544	a
* 4 1,4-Dichlorobenzene-d4	152	8.007	7.994	0.013	85	133182	1.00	1.00	
* 5 Naphthalene-d8	136	9.559	9.559	0.000	99	490333	1.00	1.00	
$ 9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	100	228109	1.00	0.8032	
* 13 Acenaphthene-d10	164	11.745	11.746	-0.001	99	286375	1.00	1.00	
* 20 Phenanthrene-d10	188	13.616	13.616	0.000	100	581900	1.00	1.00	
$ 24 Fluoranthene-d10 (Surr)	212	15.104	15.116	-0.012	100	747223	1.00	1.00	
* 30 Chrysene-d12	240	16.922	16.922	0.000	94	584732	1.00	1.00	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.948	18.963	-0.008	100	531539	1.00	1.00	
* 36 Perylene-d12	264	19.088	19.081	0.007	100	563203	1.00	1.00	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

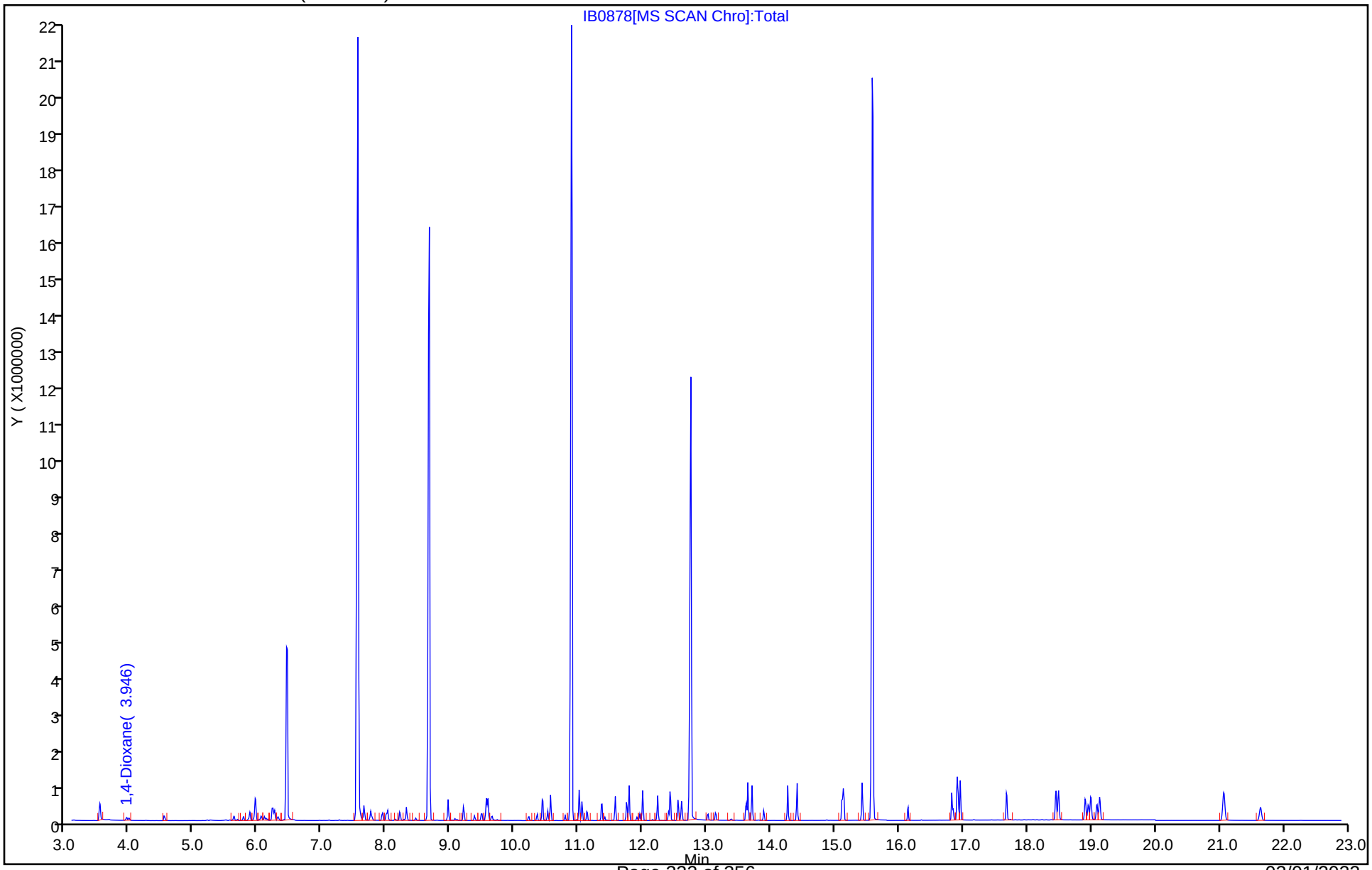
MSS_FVSIM_IS_00014 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 23-Feb-2022 03:29:32 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0878.D				
Injection Date:	22-Feb-2022 11:25:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	410-73279-B-1-A MS			Worklist Smp#:	9
Client ID:	IMPORT-1-20220216				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0878.D				
Lims ID:	410-73279-B-1-A MS				
Client ID:	IMPORT-1-20220216				
Sample Type:	MS				
Inject. Date:	22-Feb-2022 11:25:30	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-B-1-A MS				
Misc. Info.:	410-0050858-009				
Operator ID:	jmg00346	Instrument ID:	HP10976		

Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	23-Feb-2022 03:28:49	Calib Date:	21-Feb-2022 08:48:30
Integrator:	Falcon	ID Type:	RT Order ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D		

Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Det: MS SCAN	
Process Host:	CTX1644		

First Level Reviewer: gamblerj Date: 23-Feb-2022 03:26:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1-Methylnaphthalene-d10	1.00	0.8032	80.32
$ 24 Fluoranthene-d10 (Surr)	1.00	1.00	100.25
$ 38 Benzo(a)pyrene-d12 (Surr)	1.00	1.00	100.33

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

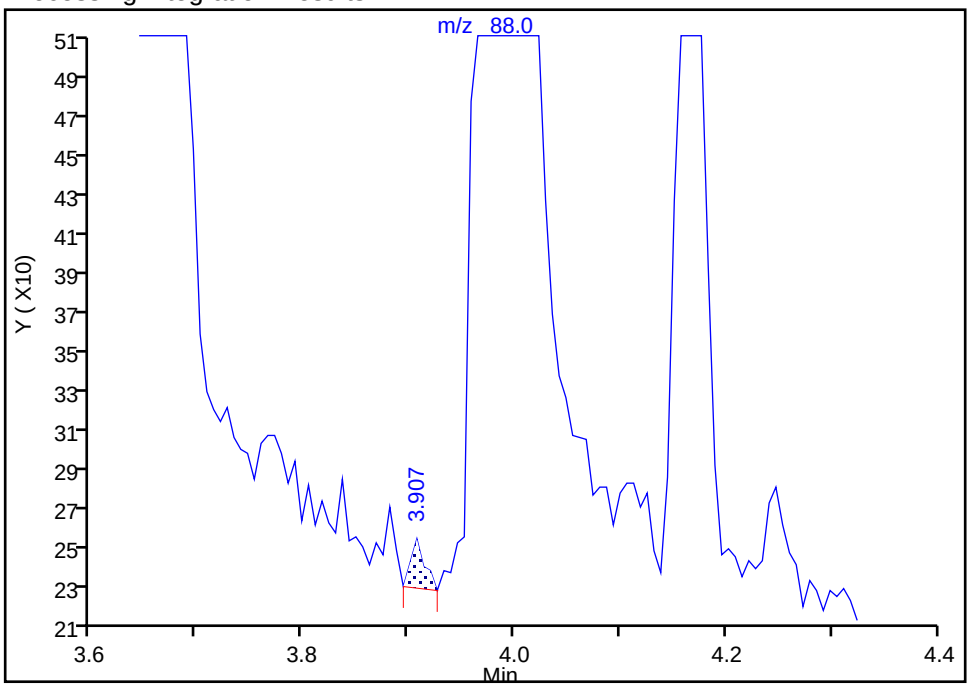
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0878.D				
Injection Date:	22-Feb-2022 11:25:30	Instrument ID:	HP10976		
Lims ID:	410-73279-B-1-A MS				
Client ID:	IMPORT-1-20220216				
Operator ID:	jmg00346	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

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

Signal: 1

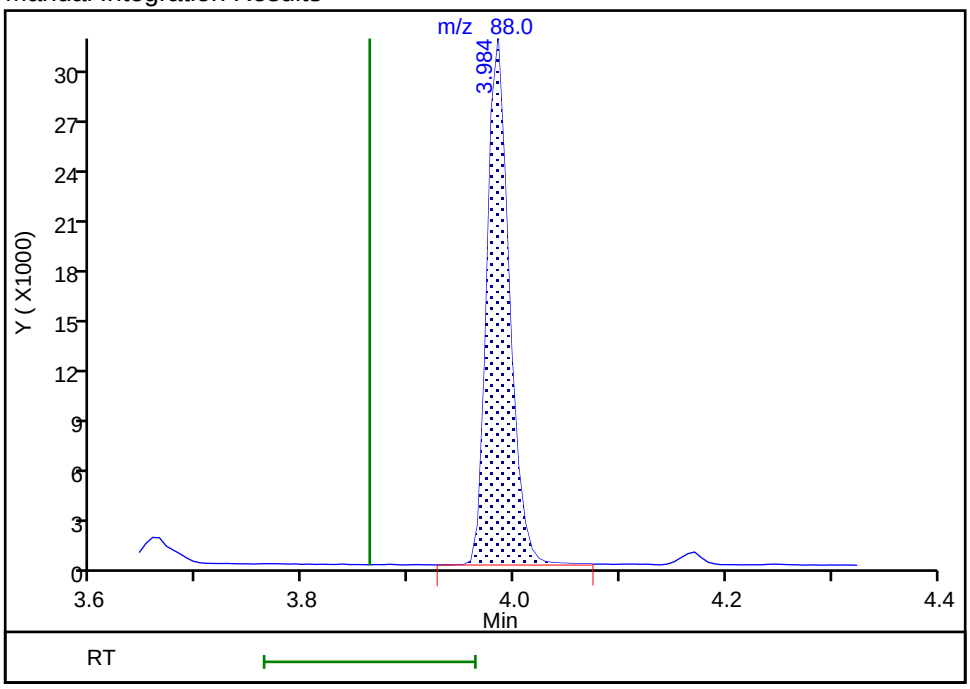
Processing Integration Results

RT: 3.91
Area: 22
Amount: -0.005425
Amount Units: ug/ml



Manual Integration Results

RT: 3.98
Area: 45937
Amount: 0.554369
Amount Units: ug/ml



Reviewer: gamblerj, 23-Feb-2022 03:26:36

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73279-1

SDG No.:

Client Sample ID: IMPORT-1-20220216 MSD Lab Sample ID: 410-73279-1 MSD

Matrix: Solid Lab File ID: IB0879.D

Analysis Method: 8270D SIM Date Collected: 02/16/2022 12:20

Extract. Method: 3546 Date Extracted: 02/20/2022 19:08

Sample wt/vol: 30.25(g) Date Analyzed: 02/22/2022 11:55

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

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

% Moisture: 2.8 GPC Cleanup:(Y/N) N

Analysis Batch No.: 226145 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	20.6		3.1	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
63466-71-7	Benzo(a)pyrene-d12 (Surr)	102		36-119
38072-94-5	1-Methylnaphthalene-d10 (Surr)	83		37-110
93951-69-0	Fluoranthene-d10 (Surr)	102		41-135

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0879.D				
Lims ID:	410-73279-B-1-B MSD				
Client ID:	IMPORT-1-20220216				
Sample Type:	MSD				
Inject. Date:	22-Feb-2022 11:55:30	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-B-1-B MSD				
Misc. Info.:	410-0050858-010				
Operator ID:	jmg00346	Instrument ID:	HP10976		
Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m				
Limit Group:	MSSV - 8270D_E SIM				
Last Update:	23-Feb-2022 03:28:49	Calib Date:	21-Feb-2022 08:48:30		
Integrator:	Falcon	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D				
Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)		Det: MS SCAN		
Process Host:	CTX1644				
First Level Reviewer: gamblerj		Date:	23-Feb-2022 03:27:15		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 1,4-Dioxane	88	3.991	3.991	0.128	84	49556	1.00	0.6067	a
* 4 1,4-Dichlorobenzene-d4	152	8.007	7.994	0.013	85	131552	1.00	1.00	
* 5 Naphthalene-d8	136	9.559	9.559	0.000	99	490620	1.00	1.00	
$ 9 1-Methylnaphthalene-d10	152	10.518	10.518	0.000	100	234636	1.00	0.8264	
* 13 Acenaphthene-d10	164	11.745	11.746	-0.001	99	280648	1.00	1.00	
* 20 Phenanthrene-d10	188	13.616	13.616	0.000	100	570717	1.00	1.00	
$ 24 Fluoranthene-d10 (Surr)	212	15.104	15.116	-0.012	100	744600	1.00	1.02	
* 30 Chrysene-d12	240	16.922	16.922	0.000	95	555448	1.00	1.00	
$ 38 Benzo(a)pyrene-d12 (Surr)	264	18.947	18.963	-0.009	100	512542	1.00	1.02	
* 36 Perylene-d12	264	19.088	19.081	0.007	100	534467	1.00	1.00	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

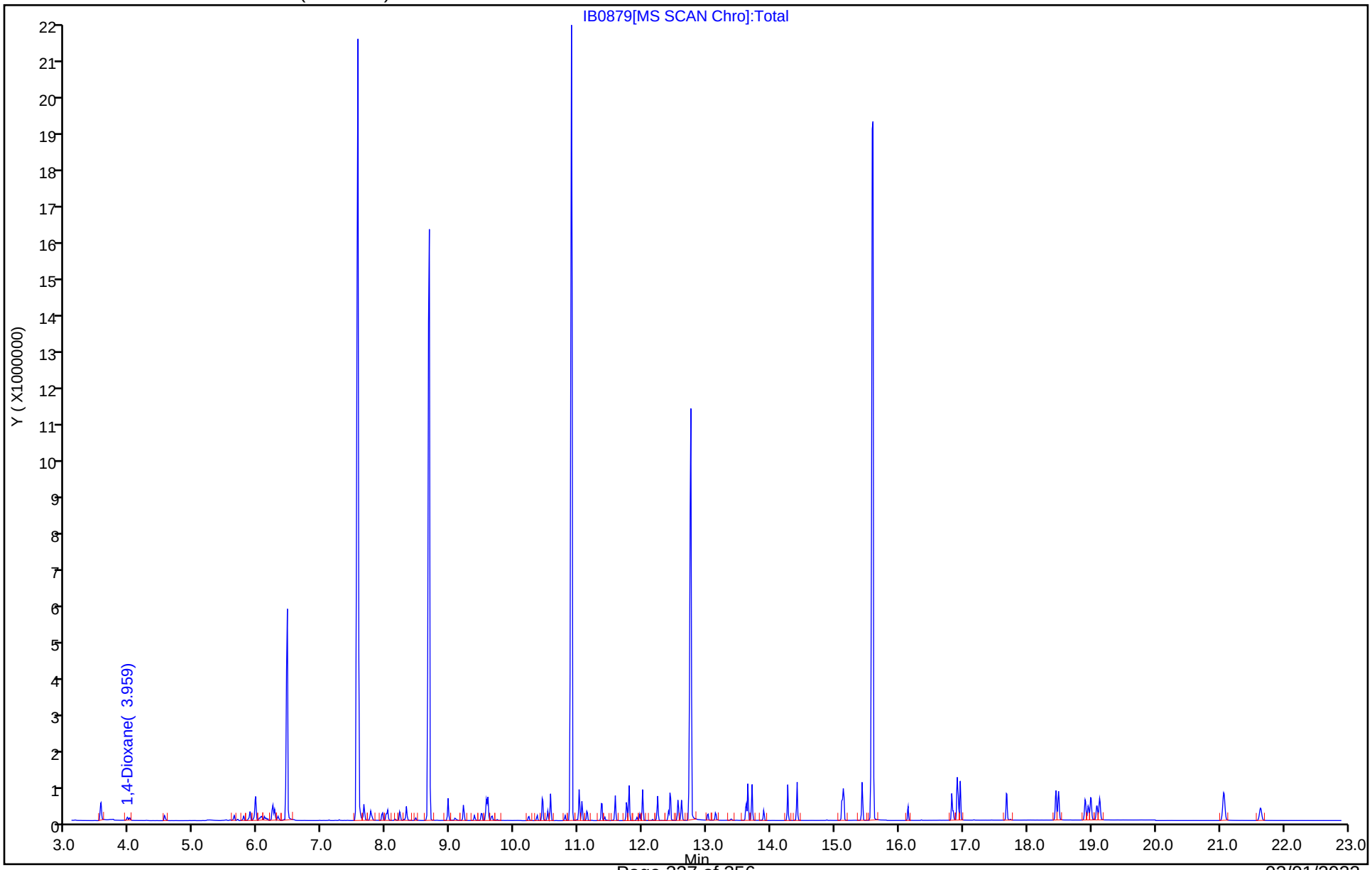
MSS_FVSIM_IS_00014 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 23-Feb-2022 03:29:32 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0879.D				
Injection Date:	22-Feb-2022 11:55:30	Instrument ID:	HP10976	Operator ID:	jmg00346
Lims ID:	410-73279-B-1-B MSD			Worklist Smp#:	10
Client ID:	IMPORT-1-20220216				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		

Column: Rxi-.5SilMS 30m 0.25mm (0.25 mm)



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0879.D				
Lims ID:	410-73279-B-1-B MSD				
Client ID:	IMPORT-1-20220216				
Sample Type:	MSD				
Inject. Date:	22-Feb-2022 11:55:30	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	410-73279-B-1-B MSD				
Misc. Info.:	410-0050858-010				
Operator ID:	jmg00346	Instrument ID:	HP10976		

Method:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\8270_SIM_HP10976.m		
Limit Group:	MSSV - 8270D_E SIM		
Last Update:	23-Feb-2022 03:28:49	Calib Date:	21-Feb-2022 08:48:30
Integrator:	Falcon	ID Type:	RT Order ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Lancaster\ChromData\HP10976\20220221-50767.b\IB0707.D		

Column 1 :	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Det: MS SCAN	
Process Host:	CTX1644		

First Level Reviewer: gamblerj Date: 23-Feb-2022 03:27:15

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1-Methylnaphthalene-d10	1.00	0.8264	82.64
$ 24 Fluoranthene-d10 (Surr)	1.00	1.02	101.86
$ 38 Benzo(a)pyrene-d12 (Surr)	1.00	1.02	101.94

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

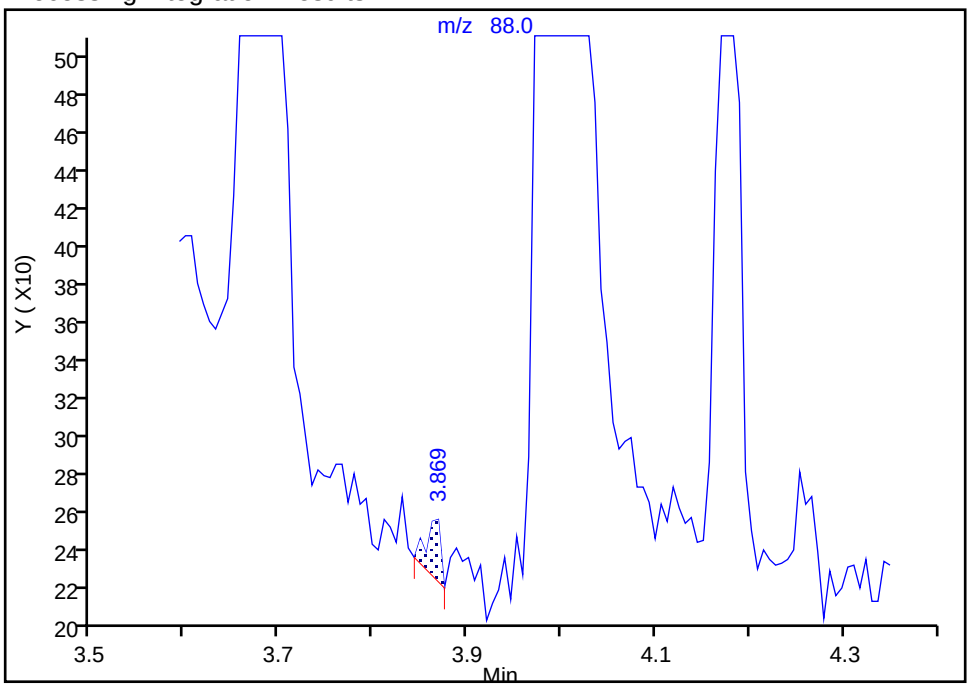
Data File:	\\chromfs\Lancaster\ChromData\HP10976\20220222-50858.b\IB0879.D				
Injection Date:	22-Feb-2022 11:55:30	Instrument ID:	HP10976		
Lims ID:	410-73279-B-1-B MSD				
Client ID:	IMPORT-1-20220216				
Operator ID:	jmg00346	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_SIM_HP10976	Limit Group:	MSSV - 8270D_E SIM		
Column:	Rxi-.5SilMS 30m 0.25mm (0.25 mm)	Detector	MS SCAN		

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

Signal: 1

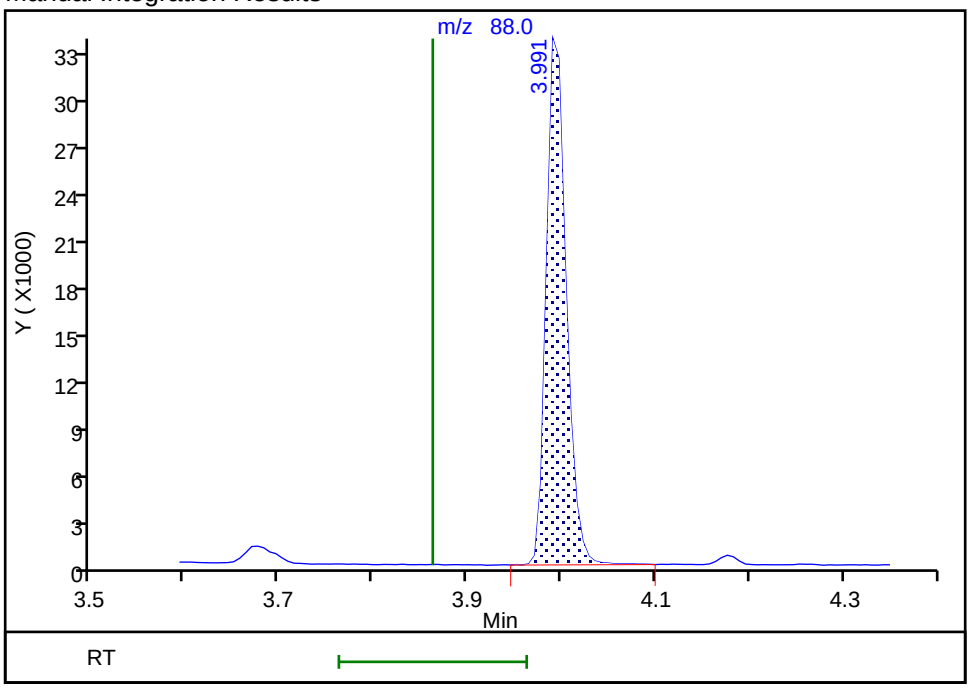
Processing Integration Results

RT: 3.87
Area: 31
Amount: -0.005312
Amount Units: ug/ml



Manual Integration Results

RT: 3.99
Area: 49556
Amount: 0.606704
Amount Units: ug/ml



Reviewer: gamblerj, 23-Feb-2022 03:27:00

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Instrument ID: HP10976 Start Date: 02/21/2022 05:14

Analysis Batch Number: 225714 End Date: 02/21/2022 12:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 410-225714/1		02/21/2022 05:14	1	IB0700.D	Rxi-.5SilMS 30m 0.25(mm)
ICIS 410-225714/2		02/21/2022 05:36	1	IB0701.D	Rxi-.5SilMS 30m 0.25(mm)
IC 410-225714/3		02/21/2022 06:08	1	IB0702.D	Rxi-.5SilMS 30m 0.25(mm)
IC 410-225714/4		02/21/2022 06:39	1	IB0703.D	Rxi-.5SilMS 30m 0.25(mm)
IC 410-225714/5		02/21/2022 07:15	1	IB0704.D	Rxi-.5SilMS 30m 0.25(mm)
IC 410-225714/6		02/21/2022 07:46	1	IB0705.D	Rxi-.5SilMS 30m 0.25(mm)
IC 410-225714/7		02/21/2022 08:17	1	IB0706.D	Rxi-.5SilMS 30m 0.25(mm)
IC 410-225714/8		02/21/2022 08:48	1	IB0707.D	Rxi-.5SilMS 30m 0.25(mm)
ICVL 410-225714/9		02/21/2022 09:19	1		Rxi-.5SilMS 30m 0.25(mm)
ICVL 410-225714/10		02/21/2022 09:49	1		Rxi-.5SilMS 30m 0.25(mm)
ICV 410-225714/11		02/21/2022 10:20	1	IB0710.D	Rxi-.5SilMS 30m 0.25(mm)
ZZZZZ		02/21/2022 10:51	1		Rxi-.5SilMS 30m 0.25(mm)
ZZZZZ		02/21/2022 11:23	1		Rxi-.5SilMS 30m 0.25(mm)
ZZZZZ		02/21/2022 11:54	1		Rxi-.5SilMS 30m 0.25(mm)
ZZZZZ		02/21/2022 12:26	5		Rxi-.5SilMS 30m 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Instrument ID: HP10976 Start Date: 02/21/2022 18:55

Analysis Batch Number: 226084 End Date: 02/21/2022 20:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 410-226084/1		02/21/2022 18:55	1	IB0800a.D	Rxi-.5SilMS 30m 0.25(mm)
CCVIS 410-226084/2		02/21/2022 19:12	1	IB0801.D	Rxi-.5SilMS 30m 0.25(mm)
MB 410-225699/1-A		02/21/2022 20:00	1	IB0802.D	Rxi-.5SilMS 30m 0.25(mm)
LCS 410-225699/2-A		02/21/2022 20:31	1	IB0803.D	Rxi-.5SilMS 30m 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Instrument ID: HP10976 Start Date: 02/22/2022 06:48

Analysis Batch Number: 226145 End Date: 02/22/2022 12:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 410-226145/1		02/22/2022 06:48	1	IB0870.D	Rxi-.5SilMS 30m 0.25(mm)
CCVIS 410-226145/2		02/22/2022 07:45	1	IB0871a.D	Rxi-.5SilMS 30m 0.25(mm)
410-73279-1	IMPORT-1-20220216	02/22/2022 10:54	1	IB0877.D	Rxi-.5SilMS 30m 0.25(mm)
410-73279-1 MS	IMPORT-1-20220216 MS	02/22/2022 11:25	1	IB0878.D	Rxi-.5SilMS 30m 0.25(mm)
410-73279-1 MSD	IMPORT-1-20220216 MSD	02/22/2022 11:55	1	IB0879.D	Rxi-.5SilMS 30m 0.25(mm)
410-73279-2	IMPORT-2-20220216	02/22/2022 12:26	1	IB0880.D	Rxi-.5SilMS 30m 0.25(mm)
410-73279-3	DUP-20220216	02/22/2022 12:57	1	IB0881.D	Rxi-.5SilMS 30m 0.25(mm)

8270D SIM

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Instrument ID: HP23263 Start Date: 02/24/2022 16:52

Analysis Batch Number: 227325 End Date: 02/24/2022 20:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 410-227325/1		02/24/2022 16:52	1	NB0400e.D	DB-5MS 30m 0.25 0.25(mm)
ICIS 410-227325/2		02/24/2022 17:14	1	NB0401b.D	DB-5MS 30m 0.25 0.25(mm)
IC 410-227325/3		02/24/2022 17:41	1	NB0402.D	DB-5MS 30m 0.25 0.25(mm)
IC 410-227325/4		02/24/2022 18:03	1	NB0403.D	DB-5MS 30m 0.25 0.25(mm)
IC 410-227325/5		02/24/2022 18:25	1	NB0404.D	DB-5MS 30m 0.25 0.25(mm)
IC 410-227325/6		02/24/2022 18:48	1	NB0405.D	DB-5MS 30m 0.25 0.25(mm)
IC 410-227325/7		02/24/2022 19:10	1	NB0406.D	DB-5MS 30m 0.25 0.25(mm)
ICVL 410-227325/8		02/24/2022 19:32	1		DB-5MS 30m 0.25 0.25(mm)
ICV 410-227325/9		02/24/2022 19:54	1	NB0408.D	DB-5MS 30m 0.25 0.25(mm)
ICV 410-227325/10		02/24/2022 20:16	1	NB0409.D	DB-5MS 30m 0.25 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73279-1

SDG No.:

Instrument ID: HP23263 Start Date: 02/24/2022 21:00

Analysis Batch Number: 227542 End Date: 02/25/2022 04:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 410-227542/1		02/24/2022 21:00	1	NB0420.D	DB-5MS 30m 0.25 0.25(mm)
CCVIS 410-227542/2		02/24/2022 21:21	1	NB0421.D	DB-5MS 30m 0.25 0.25(mm)
MB 410-226489/1-A		02/24/2022 22:01	1	NB0422.D	DB-5MS 30m 0.25 0.25(mm)
LCS 410-226489/2-A		02/24/2022 22:24	1	NB0423.D	DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/24/2022 22:46	1		DB-5MS 30m 0.25 0.25(mm)
410-73279-4	FB-20220216	02/24/2022 23:08	1	NB0425.D	DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/24/2022 23:30	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/24/2022 23:53	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 00:15	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 00:37	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 01:00	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 01:22	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 01:44	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 02:07	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 02:29	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 02:52	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 03:14	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 03:36	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 03:58	1		DB-5MS 30m 0.25 0.25(mm)
ZZZZZ		02/25/2022 04:21	1		DB-5MS 30m 0.25 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-73279-1

SDG No.:

Batch Number: 225699 Batch Start Date: 02/20/22 19:08 Batch Analyst: Shamory, Anna

Batch Method: 3546 Batch End Date: 02/20/22 23:09

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	CUPerformed	OP_BNA_SS 00034	OP_SIMLCS_MS 00057	AnalysisComment
MB 410-225699/1		3546, 8270D SIM		30.00 g	1.0 mL	N	1 mL		Na2SO4
LCS 410-225699/2		3546, 8270D SIM		30.00 g	1.0 mL	N	1 mL	1 mL	Na2SO4
410-73279-B-1 MS	IMPORT-1-20220216	3546, 8270D SIM	T	30.12 g	1.0 mL	N	1 mL	1 mL	gray gritty soil
410-73279-B-1 MSD	IMPORT-1-20220216	3546, 8270D SIM	T	30.25 g	1.0 mL	N	1 mL	1 mL	gray gritty soil
410-73279-B-1	IMPORT-1-20220216	3546, 8270D SIM	T	30.25 g	1.0 mL	N	1 mL		gray gritty soil
410-73279-B-2	IMPORT-2-20220216	3546, 8270D SIM	T	30.23 g	1.0 mL	N	1 mL		gray gritty soil
410-73279-B-3	DUP-20220216	3546, 8270D SIM	T	30.22 g	1.0 mL	N	1 mL		gray gritty soil

Batch Notes	
Balance ID	17609
Microwave Oven ID	9818
Analyst ID - Extraction	39644
Blank Matrix ID	Na2SO4
Analyst ID - Spike Analyst	39644
Prep Solvent ID	1:1 Acetone/MeCl2 39644022022A
Na2SO4 ID	22049A
Analyst ID - Concentration	39644
Equipment ID - Concentration 1	rapid vap 6/10/11
Concentration 1 Uncorrected Temperature	80 Degrees C
Exchange Solvent ID	MeCl2 216836

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-73279-1

SDG No.:

Batch Number: 226489 Batch Start Date: 02/22/22 16:35 Batch Analyst: Simons, Connor

Batch Method: 3510C Batch End Date: 02/22/22 23:48

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	DensityAcc	InitialAmount	FinalAmount	ReceivedpH
MB 410-226489/1		3510C, 8270D SIM				n/a	250 mL	1 mL	n/a SU
LCS 410-226489/2		3510C, 8270D SIM				n/a	250 mL	1 mL	n/a SU
410-73279-A-4	FB-20220216	3510C, 8270D SIM	T	394.42 g	166.39 g	n/a	228 mL	1 mL	n/a SU

Lab Sample ID	Client Sample ID	Method Chain	Basis	FirstAdjustpH	SecondAdjustpH	CUPerformed	OP_MINIBNA_SS 00054	OP_SIMLCS_MS 00057	AnalysisComment
MB 410-226489/1		3510C, 8270D SIM		>11 SU	<2 SU	N	1 mL		tap h2o
LCS 410-226489/2		3510C, 8270D SIM		>11 SU	<2 SU	N	1 mL	0.25 mL	tap h2o
410-73279-A-4	FB-20220216	3510C, 8270D SIM	T	>11 SU	<2 SU	N	1 mL		clear

Batch Notes	
Balance ID	25996
Analyst ID - Extraction	40256
Analyst ID - Spike Analyst	40256
Acid Used for pH Adjustment ID	h2so4 217416
Base Used to Adjust pH ID	naoh 4106F80
Prep Solvent ID	mecl2 217444
Prep Solvent Volume Used	90
Na2SO4 ID	22052A
Analyst ID - Concentration	40256
Equipment ID - Concentration 1	rvap 4 1 2
Concentration 1 Corrected Temperature	80 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-73279-1

SDG No.:

Project: Troy PL E20

Client Sample ID	Lab Sample ID
IMPORT-1-20220216	410-73279-1
IMPORT-2-20220216	410-73279-2
DUP-20220216	410-73279-3

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-73279-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture MDL Date: 10/16/2018 12:54

Analyte	Wavelength/ Mass	RL (%)	MDL (%)
Percent Moisture		1	0.1
Percent Solids		1	0.1

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-73279-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XMDL Date: 10/16/2018 09:12

Analyte	Wavelength/ Mass	XRL (%)	XMDL (%)
Percent Moisture		1	0.1
Percent Solids		1	0.1

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73279-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 02/18/2022 09:33 End Date: 02/18/2022 09:33

Lab Sample ID	D/F	Type	Time	Analytes																			
				% Sol	Moist																		
ZZZZZZ			09:33																				
ZZZZZZ			09:33																				
ZZZZZZ			09:33																				
ZZZZZZ			09:33																				
ZZZZZZ			09:33																				
ZZZZZZ			09:33																				
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ZZZZZZ			09:33																				
ZZZZZZ			09:33																				
ZZZZZZ			09:33																				
410-73279-1	1	T	09:33	X	X																		
410-73279-2	1	T	09:33	X	X																		
410-73279-3	1	T	09:33	X	X																		

Prep Types
T = Total/NA

General Chemistry Raw Data Report

Job ID: 410-73279-1

Batch: 225368 **Analyst Initials: UGCW**

Method: Moisture **Instrument: NONE**

Lab Sample ID: 410-73279-A-1 **Analysis Date: Feb 18, 2022 09:33**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	2.76008492568999	%
Percent Solids	None	1	97.23991507431	%

Lab Sample ID: 410-73279-A-2 **Analysis Date: Feb 18, 2022 09:33**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	2.8199566160521	%
Percent Solids	None	1	97.1800433839479	%

Lab Sample ID: 410-73279-A-3 **Analysis Date: Feb 18, 2022 09:33**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	2.9850746268657	%
Percent Solids	None	1	97.0149253731343	%

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-73279-1

SDG No.:

Batch Number: 225368 Batch Start Date: 02/18/22 09:33 Batch Analyst: Wettig, Chad C

Batch Method: Moisture Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid
410-73279-A-1	IMPORT-1-20220216	Moisture	T	368-22	1.13 g	5.84 g	5.71 g	2.76008492568999 %	97.23991507431 %
410-73279-A-2	IMPORT-2-20220216	Moisture	T	368-23	1.12 g	5.73 g	5.60 g	2.8199566160521 %	97.1800433839479 %
410-73279-A-3	DUP-20220216	Moisture	T	368-24	1.13 g	5.15 g	5.03 g	2.9850746268657 %	97.0149253731343 %

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
410-73279-A-1	IMPORT-1-20220216	Moisture	T	soil fine roots					
410-73279-A-2	IMPORT-2-20220216	Moisture	T	soil fine roots					
410-73279-A-3	DUP-20220216	Moisture	T	soil fine roots					

Batch Notes	
Balance ID	B4442
Oven ID	8948
Thermometer ID	1262
Date samples were placed in the oven	02/18/2022
Time samples were place in the oven	10:10
Oven Temp In	105 Degrees C
Date samples were removed from oven	02/19/2022
Time Samples were removed from oven	05:51
Oven Temp Out	105 Degrees C
Batch Comment	Cal. Due: 2/4/23

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Phone (717) 656-2300

Chain of Custody Record

eurofins Environment Testing America

410-73279 Chain of Custody

Client Information	Sampler: Brian Taylor	Lab PM: Weyandt, Barbara A	C No: 0-50021-13963.1
Client Contact: Mr ~~James Maroldo~~ Brian Taylor	Phone: 845-501-4229	E-Mail: Barbara.Weyandt@eurofinset.com	State of Origin:
Company: Brown and Caldwell	PWSID:		Page: Page 1 of 1
Address: 500 North Franklin Turnpike Suite 306	Due Date Requested:		Job #
City: Ramsey	TAT Requested (days):		
State, Zip: NJ, 07446	Compliance Project: Δ Yes Δ No		
Phone: ~~201-574-4713(Tel)~~ 518-560-5907	PO #: 152167~~205~~		
Email: ~~jmaroldo@brwncald.com~~ bftaylor@brwncald.com	WO #		
Project Name: ~~Troy NY Water 1,4-Dioxane~~ TROY PLE20	Project #: 41003608		
Site	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	~~8270D_SIM~~, Moisture	8270D_SIM - 1,4-Dioxane										Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N											
Import-1-20220216	2/16/22	1220	C	S			X	X										3	MS/MSD
Import-2-20220216	2/16/22	1230	C	S			X	X										1	
Dup-20220216	2/16/22	9999	C	S			X	X										1	
FB-20220216	2/16/22	1235	G	W			X	X										2	

2/16/22

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) NYS CAT B RCEQUIS

Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Edwin Hernandez	2/11/22 1300				
	2/16/22 1700				
3rd FED Ex				2-17-22 1131	CUE

Custody Seals Intact: Δ Yes Δ No
Custody Seal No: 132560

Cooler Temperature(s) °C and Other Remarks: 1.5°C

Ver 01/16/2019

03/01/2022

Login Sample Receipt Checklist

Client: Brown and Caldwell

Job Number: 410-73279-1

Login Number: 73279
List Number: 1
Creator: Renner, Melissa

List Source: Eurofins Lancaster Laboratories Env, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.

Eliza Bayer

From: Squire, Michael H (DEC) <Michael.Squire@dec.ny.gov>
Sent: Tuesday, January 7, 2025 4:12 PM
To: Eliza Bayer
Cc: Nia Gilliam; Adam Gutta; Adam Sherman; Charles Atanasio; Kaleb Atkins; Pratt, Gerald H (DEC)
Subject: RE: Troy Phase 2 Remediation Request to Import

Follow Up Flag: Follow up
Flag Status: Flagged

Eliza,

I approve the import of both materials.

Thanks,
Michael

From: Eliza Bayer <ebayer@BrwnCald.com>
Sent: Tuesday, 7 January, 2025 10:42
To: Squire, Michael H (DEC) <Michael.Squire@dec.ny.gov>
Cc: Nia Gilliam <NGilliam@BrwnCald.com>; Adam Gutta <agutta@BrwnCald.com>; Adam Sherman <ASherman@Brwncald.com>; Charles Atanasio <Catanasio@BrwnCald.com>; Kaleb Atkins <KAtkins@BrwnCald.com>; Pratt, Gerald H (DEC) <gerald.pratt@dec.ny.gov>
Subject: RE: Troy Phase 2 Remediation Request to Import

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good morning Michael,

Attached to this email are request to import packages requesting approval of the following materials for the Troy Phase 2 project:

- Common Fill – 15,000 cy
- Select Granular Fill – 3,000 cy

Due to the size of the file, the Cat B report for emerging contaminants results (Attachment 4b) has been uploaded to OneDrive, linked below.
RequestToImport_Attachment_4b

Please let me know if you have any questions.

Thank you,

Eliza Bayer
Staff Environmental Engineer
Brown and Caldwell | Syracuse, NY
T 315.623.8943 | C 516.587.7053 | ebayer@brwncald.com

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e) and 6NYCRR Part 360.13. Use of this form is not a substitute for reading the applicable regulations and Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Commercial or Industrial Us

Have Ecological Resources been identified? yes

Is this soil originating from the site? no

How many cubic yards of soil will be imported/reused? >1000

If greater than 1000 cubic yards will be imported, enter volume to be imported: 15,000

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? no

Does it contain less than 10%, by weight, material that passes a size 100 sieve? yes

Is this virgin material from a permitted mine or quarry? yes

Is this material recycled concrete or brick from a DEC registered processing facility? no

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

15 discrete samples were analyzed for VOCs and 8 composite samples were analyzed for SVOCs, PCBs, Pesticides/Herbicides, Metals, and Hexavalent Chromium. Additionally, 8 composite samples were collected for the analysis of emerging contaminants PFAS and 1,4-Dioxane.

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

The results for parameters required by DER-10 (i.e., VOCs, SVOCs, Inorganics, PCBs/Pesticides) are included in Attachment 3. VOCs, SVOCs, PCBs, Pesticides, Cyanide, Hexavalent Chromium were not detected in the samples. Various Metals were detected but concentrations are below the Unrestricted Use SCOs.

The results for emerging contaminants 1,4-Dioxane and PFAS are included in Attachment 4a. Attachment 4b (NYS Category B Deliverable for PFAS results) will be uploaded to the project OneDrive due to file size. 1,4-Dioxane and PFAS were not detected with the exception of the duplicate and field blank samples. 1,4-Dioxane was detected in the duplicate at 5.7 ug/kg, which is below the Unrestricted Use SCO (0.1 mg/kg or 100 ug/kg). PFNA was detected in the field blank at 0.82 J ng/L.

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Stephen A. Valente, Quality Representative, RJ Valente Gravel

Location where fill was obtained:

RJ Valente, George Thompson Road, Mechanicville, NY 12118

Identification of any state or local approvals as a fill source:

Mine ID 50049 (Luther Mine Forest)

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

Attachment 1 - Source Certification Statement
Attachment 2 - Results of Geotechnical Sieve Analysis (common fill)
Attachment 3 - Results of DER-10 Parameter Analytical Testing
Attachments 4a and 4b - Reasults of Emerging Contaminant (1,4-Dioxane and PFAS) Testing

The information provided on this form is accurate and complete.

	1/7/2025
Signature	Date
Adam Sherman	
Print Name	
Brown and Caldwell Associates	
Firm	

RJ VALENTE GRAVEL Inc.
1 MADISON ST.SUITE 300
TROY NY 12180
518-279-1001

TO WHOM IT MAY CONCERN:

As per your request, please accept this correspondence as follows: For the Troy (Water Street) Phase 2 project in Troy, NY.

All imported materials to be delivered to the above referenced project, do not, to the best of our knowledge contain any known contamination from prior historical, industrial, commercial development or agricultural use prior to delivery.

The fill material originates from the following virgin sand and gravel pit:
Mackay Pit as designated by the NYS DEC at, George Thompson Rd. Mechanicville NY 12118.

Luther Forest Mine - Mine ID # 50049

STEPHEN A.VALENTE

PERMIT

Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
R J VALENTE GRAVEL INC
1 Madison St Ste 300
Troy, NY 12180
(518) 432-4470

Facility:
GRAFTON QUARRY
3349 ST RTE 2 & CAMEL HILL RD
GRAFTON, NY 12082

Facility Location: in GRAFTON in RENSSELAER COUNTY
Facility Principal Reference Point: NYTM-E: 620.95 NYTM-N: 4735.742
Latitude: 42°45'52.8" Longitude: 73°31'18.3"
Authorized Activity: Continued operation of a 74.61± acre life of mine graywacke sandstone quarry for which a previous permit has been issued under Article 23, Title 27, of the Environmental Conservation Law (Mined Land Reclamation), of which 48± acres are authorized to be affected during this permit term.

Blasting and the use of on-site crushing and screening equipment and a closed-loop wash plant system are authorized at this facility.

This permit does not authorize water withdrawal from the Quackenkill.

All activities shall be conducted in accordance with the conditions contained in this permit.

*This is a Department Initiated Modification (DIM) to bring the Permit up to current standards for monitoring of blasting. This includes modifcations to the following Mined Land Reclamation Permit Conditions; "Blast Monitoring," "Placemement of Seismographs," and "Blasting Record Requirements." The condition "Peak Particle Veloctiy" has been removed and replaced with the condition "Ground Vibration Limits."

Permit Authorizations

Mined Land Reclamation - Under Article 23, Title 27
Permit ID 4-3826-00017/00001

Renewal	Effective Date: 2/21/2019	Expiration Date: 2/20/2024
Modification # 1	Effective Date: 2/8/2021	Expiration Date: 2/20/2024

From: Jonathan Borrelli <jlb@land-remediation.com>
Sent: Tuesday, November 26, 2024 9:12 AM
To: Eliza Bayer <ebayer@BrwnCald.com>; Nia Gilliam <NGilliam@BrwnCald.com>
Cc: Adam Gutta <agutta@BrwnCald.com>; Charles Atanasio <Catanasio@BrwnCald.com>; Kaleb Atkins <KAtkins@BrwnCald.com>; Adam Sherman <ASherman@Brwncald.com>
Subject: RE: Submittals for Aggregate Import

They are still operating under the existing permit. Below is snapshot from R.J. Valente and NYSDEC:

Fwd: Grafton Quarry Mined Land Reclamation Permit Status

JP Joe Pas <joeypas14@gmail.com>
To Jonathan Borrelli

Reply Reply All

If there are problems with how this message is displayed, click here to view it in a web browser.

Start your reply all with: Received, thank you. | Got it, thank you. | Thank you! | Feedback

On Tue, Nov 26, 2024 at 8:08 AM June, Jami R (DEC) <Jami.June@dec.ny.gov> wrote:

Hi Joe,

As discussed, R.J. Valente's Gravel Inc.'s Grafton Quarry Mined Land Reclamation Permit is currently extended under the State Administrative Procedures Act (SAPA) because a timely permit renewal application was submitted in January 2024. This means that the quarry can be operated in accordance with the previously issued permit and approved plans until the renewal application is deemed complete and a renewed permit is issued.

If you have any other questions or need any other information, just let me know.

Thanks,

Jami June

Mined Land Reclamation Specialist II, Division of Mineral Resources, Region 4

Preferred identity: Human Being, Father, Husband, American

New York State Department of Environmental Conservation

1130 N. Westcott Rd, Schenectady, NY 12306-2014

P. 518-357-2162 | jami.june@dec.ny.gov

www.dec.ny.gov |

CONSTRUCTION TECHNOLOGY

INSPECTION & TESTING DIVISION, P.D.& T.S., INC.
4 William Street, Ballston Lake, New York 12019
Phone: (518) 399-1848 Email: constructiontech@live.com

CLIENT: **LAND REMEDIATION**
74 HUDSON RIVER ROAD
WATERFORD, NEW YORK 12188

REPORT DATE: 12/12/23
SAMPLE NUMBER: 24233
OUR FILE NUMBER: 1526.016
LAB TECHNICIAN: BOB BEHAN

ATT'N: MR. JONATHON BORRELLI
PROJECT: **NATIONAL GRID PHASE 2 REMEDIATION: TROY, NEW YORK**

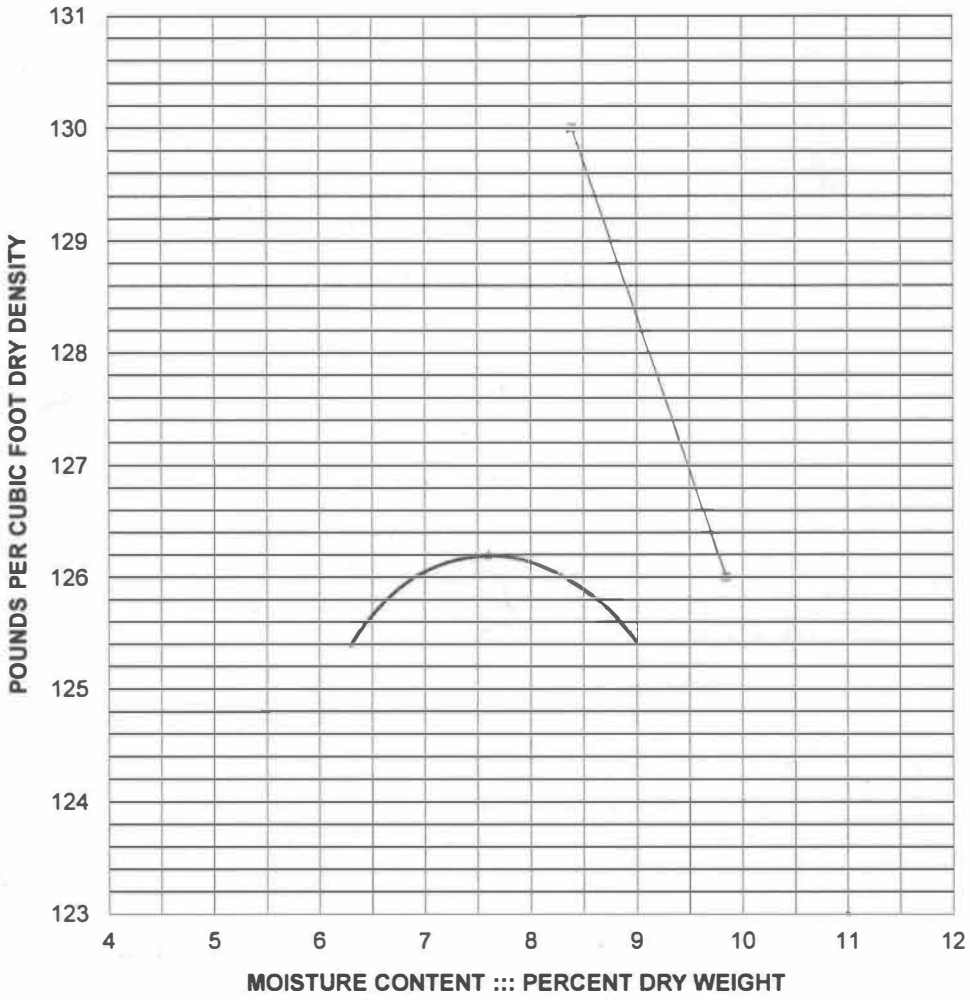
REPORT OF MOISTURE / DENSITY RELATION OF SOILS ::: PROCTOR

MATERIAL SOURCE: **BORROW: VALENTE: COMMON FILL**
MATERIAL DESCRIPTION: SAND, medium; some fine Gravel; trace Silt/Clay
PROCTOR METHOD: ASTM D-1557: MODIFIED EFFORT
GRADATION METHOD: ASTM D-1140 / D-422: WASHED

+3/4" CORRECTION: **129.3** PCF
MAXIMUM DENSITY 126.2 PCF
OPTIMUM MOISTURE **7.6 %**

ZERO AIR VOIDS CURVE: 2.53 SPECIFIC GRAVITY

GRADATION		
SIEVE SIZE	PERCENT PASSING	SPECIFICATION ALLOWANCE
4"		
3"		
2 1/2"		
2"	100.0	
1 1/2"	89.9	
1"	89.9	
3/4"	87.8	
1/2"	82.4	
3/8"	78.8	
1/4"	75.4	
#4	72.9	
1/8"		
#8	65.0	
#10		
#16	54.2	
#20		
#30	33.3	
#40	23.7	
#50	15.9	
#60		
#80		
#100	8.1	
#140		
#200	5.9	



REPORT DISTRIBUTION:	GENERAL NOTES:	Respectfully,
1:		**CONSTRUCTION TECHNOLOGY**
2:		
3:		*Robert Behan*
4:		ROBERT BEHAN, (NICET)
5:		MANAGER TECHNICAL SERVICES

ANALYTICAL REPORT

Lab Number:	L2474287
Client:	Land Remediation, Inc. 74 Hudson River Road Waterford, NY 12188
ATTN:	Jonathan Borrelli
Phone:	(203) 233-4100
Project Name:	TROY (WATER ST.) PHASE 2-AREA2
Project Number:	TROY (WATER ST.) PHA
Report Date:	12/26/24

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2474287-01	CF-1	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 09:00	12/17/24
L2474287-02	CF-1A	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 09:15	12/17/24
L2474287-03	CF-2	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 09:30	12/17/24
L2474287-04	CF-2A	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 09:45	12/17/24
L2474287-05	CF-3	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 10:00	12/17/24
L2474287-06	CF-3A	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 10:15	12/17/24
L2474287-07	CF-4	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 10:30	12/17/24
L2474287-08	CF-4A	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 10:45	12/17/24
L2474287-09	CF-5	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 11:00	12/17/24
L2474287-10	CF-5A	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 11:15	12/17/24
L2474287-11	CF-6	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 11:30	12/17/24
L2474287-12	CF-6A	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 11:45	12/17/24
L2474287-13	CF-7	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 12:00	12/17/24
L2474287-14	CF-7A	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 12:15	12/17/24
L2474287-15	CF-8	SOLID	8000 MAIN STREET, TROY, NY	12/17/24 12:30	12/17/24

Project Name:	TROY (WATER ST.) PHASE 2-AREA2	**Lab Number:**	L2474287
Project Number:	TROY (WATER ST.) PHA	**Report Date:**	12/26/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	TROY (WATER ST.) PHASE 2-AREA2	**Lab Number:**	L2474287
Project Number:	TROY (WATER ST.) PHA	**Report Date:**	12/26/24

Case Narrative (continued)

Total Metals

L2474287-01, -03, -05, -07, -09, -11, -13, and -15: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by the sample matrix.

The WG2013247-3 MS recoveries for aluminum (410%), calcium (0%), iron (1200%) and manganese (135%), performed on L2474287-01, do not apply because the sample concentrations are greater than four times the spike amounts added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly O'Neill

Title: Technical Director/Representative

Date: 12/26/24

ORGANICS

VOLATILES

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-01
Client ID: CF-1
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 12:35
Analyst: MKS
Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.2	--	1
1,1-Dichloroethane	ND		ug/kg	1.2	--	1
Chloroform	ND		ug/kg	1.9	--	1
Carbon tetrachloride	ND		ug/kg	1.2	--	1
1,2-Dichloropropane	ND		ug/kg	1.2	--	1
Dibromochloromethane	ND		ug/kg	1.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	--	1
Tetrachloroethene	ND		ug/kg	0.62	--	1
Chlorobenzene	ND		ug/kg	0.62	--	1
Trichlorofluoromethane	ND		ug/kg	5.0	--	1
1,2-Dichloroethane	ND		ug/kg	1.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.62	--	1
Bromodichloromethane	ND		ug/kg	0.62	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.62	--	1
Bromoform	ND		ug/kg	5.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.62	--	1
Benzene	ND		ug/kg	0.62	--	1
Toluene	ND		ug/kg	1.2	--	1
Ethylbenzene	ND		ug/kg	1.2	--	1
Chloromethane	ND		ug/kg	5.0	--	1
Bromomethane	ND		ug/kg	2.5	--	1
Vinyl chloride	ND		ug/kg	1.2	--	1
Chloroethane	ND		ug/kg	2.5	--	1
1,1-Dichloroethene	ND		ug/kg	1.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	--	1
Trichloroethene	ND		ug/kg	0.62	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-01 Date Collected: 12/17/24 09:00

Client ID: CF-1 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.5	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	--	1
Methyl tert butyl ether	ND		ug/kg	2.5	--	1
p/m-Xylene	ND		ug/kg	2.5	--	1
o-Xylene	ND		ug/kg	1.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	--	1
Styrene	ND		ug/kg	1.2	--	1
Dichlorodifluoromethane	ND		ug/kg	12	--	1
Acetone	ND		ug/kg	12	--	1
Carbon disulfide	ND		ug/kg	12	--	1
2-Butanone	ND		ug/kg	12	--	1
4-Methyl-2-pentanone	ND		ug/kg	12	--	1
2-Hexanone	ND		ug/kg	12	--	1
Bromochloromethane	ND		ug/kg	2.5	--	1
1,2-Dibromoethane	ND		ug/kg	1.2	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.7	--	1
Isopropylbenzene	ND		ug/kg	1.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	--	1
Methyl Acetate	ND		ug/kg	5.0	--	1
Cyclohexane	ND		ug/kg	12	--	1
1,4-Dioxane	ND		ug/kg	99	--	1
Freon-113	ND		ug/kg	5.0	--	1
Methyl cyclohexane	ND		ug/kg	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	111		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-02
Client ID: CF-1A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:15
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 13:01
Analyst: MKS
Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.8	--	1
1,1-Dichloroethane	ND		ug/kg	1.2	--	1
Chloroform	ND		ug/kg	1.7	--	1
Carbon tetrachloride	ND		ug/kg	1.2	--	1
1,2-Dichloropropane	ND		ug/kg	1.2	--	1
Dibromochloromethane	ND		ug/kg	1.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	--	1
Tetrachloroethene	ND		ug/kg	0.58	--	1
Chlorobenzene	ND		ug/kg	0.58	--	1
Trichlorofluoromethane	ND		ug/kg	4.7	--	1
1,2-Dichloroethane	ND		ug/kg	1.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	--	1
Bromodichloromethane	ND		ug/kg	0.58	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	--	1
Bromoform	ND		ug/kg	4.7	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	--	1
Benzene	ND		ug/kg	0.58	--	1
Toluene	ND		ug/kg	1.2	--	1
Ethylbenzene	ND		ug/kg	1.2	--	1
Chloromethane	ND		ug/kg	4.7	--	1
Bromomethane	ND		ug/kg	2.3	--	1
Vinyl chloride	ND		ug/kg	1.2	--	1
Chloroethane	ND		ug/kg	2.3	--	1
1,1-Dichloroethene	ND		ug/kg	1.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	--	1
Trichloroethene	ND		ug/kg	0.58	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-02 Date Collected: 12/17/24 09:15

Client ID: CF-1A Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	--	1
Methyl tert butyl ether	ND		ug/kg	2.3	--	1
p/m-Xylene	ND		ug/kg	2.3	--	1
o-Xylene	ND		ug/kg	1.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	--	1
Styrene	ND		ug/kg	1.2	--	1
Dichlorodifluoromethane	ND		ug/kg	12	--	1
Acetone	ND		ug/kg	12	--	1
Carbon disulfide	ND		ug/kg	12	--	1
2-Butanone	ND		ug/kg	12	--	1
4-Methyl-2-pentanone	ND		ug/kg	12	--	1
2-Hexanone	ND		ug/kg	12	--	1
Bromochloromethane	ND		ug/kg	2.3	--	1
1,2-Dibromoethane	ND		ug/kg	1.2	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	--	1
Isopropylbenzene	ND		ug/kg	1.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	--	1
Methyl Acetate	ND		ug/kg	4.7	--	1
Cyclohexane	ND		ug/kg	12	--	1
1,4-Dioxane	ND		ug/kg	93	--	1
Freon-113	ND		ug/kg	4.7	--	1
Methyl cyclohexane	ND		ug/kg	4.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	111		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-03
Client ID: CF-2
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 13:26
Analyst: MKS
Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.8	--	1
1,1-Dichloroethane	ND		ug/kg	1.2	--	1
Chloroform	ND		ug/kg	1.7	--	1
Carbon tetrachloride	ND		ug/kg	1.2	--	1
1,2-Dichloropropane	ND		ug/kg	1.2	--	1
Dibromochloromethane	ND		ug/kg	1.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	--	1
Tetrachloroethene	ND		ug/kg	0.58	--	1
Chlorobenzene	ND		ug/kg	0.58	--	1
Trichlorofluoromethane	ND		ug/kg	4.6	--	1
1,2-Dichloroethane	ND		ug/kg	1.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	--	1
Bromodichloromethane	ND		ug/kg	0.58	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	--	1
Bromoform	ND		ug/kg	4.6	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	--	1
Benzene	ND		ug/kg	0.58	--	1
Toluene	ND		ug/kg	1.2	--	1
Ethylbenzene	ND		ug/kg	1.2	--	1
Chloromethane	ND		ug/kg	4.6	--	1
Bromomethane	ND		ug/kg	2.3	--	1
Vinyl chloride	ND		ug/kg	1.2	--	1
Chloroethane	ND		ug/kg	2.3	--	1
1,1-Dichloroethene	ND		ug/kg	1.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	--	1
Trichloroethene	ND		ug/kg	0.58	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-03 Date Collected: 12/17/24 09:30

Client ID: CF-2 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	--	1
Methyl tert butyl ether	ND		ug/kg	2.3	--	1
p/m-Xylene	ND		ug/kg	2.3	--	1
o-Xylene	ND		ug/kg	1.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	--	1
Styrene	ND		ug/kg	1.2	--	1
Dichlorodifluoromethane	ND		ug/kg	12	--	1
Acetone	ND		ug/kg	12	--	1
Carbon disulfide	ND		ug/kg	12	--	1
2-Butanone	ND		ug/kg	12	--	1
4-Methyl-2-pentanone	ND		ug/kg	12	--	1
2-Hexanone	ND		ug/kg	12	--	1
Bromochloromethane	ND		ug/kg	2.3	--	1
1,2-Dibromoethane	ND		ug/kg	1.2	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	--	1
Isopropylbenzene	ND		ug/kg	1.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	--	1
Methyl Acetate	ND		ug/kg	4.6	--	1
Cyclohexane	ND		ug/kg	12	--	1
1,4-Dioxane	ND		ug/kg	93	--	1
Freon-113	ND		ug/kg	4.6	--	1
Methyl cyclohexane	ND		ug/kg	4.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	111		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-04
Client ID: CF-2A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:45
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 13:52
Analyst: MKS
Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.6	--	1
1,1-Dichloroethane	ND		ug/kg	0.92	--	1
Chloroform	ND		ug/kg	1.4	--	1
Carbon tetrachloride	ND		ug/kg	0.92	--	1
1,2-Dichloropropane	ND		ug/kg	0.92	--	1
Dibromochloromethane	ND		ug/kg	0.92	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.92	--	1
Tetrachloroethene	ND		ug/kg	0.46	--	1
Chlorobenzene	ND		ug/kg	0.46	--	1
Trichlorofluoromethane	ND		ug/kg	3.7	--	1
1,2-Dichloroethane	ND		ug/kg	0.92	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.46	--	1
Bromodichloromethane	ND		ug/kg	0.46	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.92	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.46	--	1
Bromoform	ND		ug/kg	3.7	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.46	--	1
Benzene	ND		ug/kg	0.46	--	1
Toluene	ND		ug/kg	0.92	--	1
Ethylbenzene	ND		ug/kg	0.92	--	1
Chloromethane	ND		ug/kg	3.7	--	1
Bromomethane	ND		ug/kg	1.8	--	1
Vinyl chloride	ND		ug/kg	0.92	--	1
Chloroethane	ND		ug/kg	1.8	--	1
1,1-Dichloroethene	ND		ug/kg	0.92	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	--	1
Trichloroethene	ND		ug/kg	0.46	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-04 Date Collected: 12/17/24 09:45

Client ID: CF-2A Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	1.8	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	--	1
Methyl tert butyl ether	ND		ug/kg	1.8	--	1
p/m-Xylene	ND		ug/kg	1.8	--	1
o-Xylene	ND		ug/kg	0.92	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.92	--	1
Styrene	ND		ug/kg	0.92	--	1
Dichlorodifluoromethane	ND		ug/kg	9.2	--	1
Acetone	ND		ug/kg	9.2	--	1
Carbon disulfide	ND		ug/kg	9.2	--	1
2-Butanone	ND		ug/kg	9.2	--	1
4-Methyl-2-pentanone	ND		ug/kg	9.2	--	1
2-Hexanone	ND		ug/kg	9.2	--	1
Bromochloromethane	ND		ug/kg	1.8	--	1
1,2-Dibromoethane	ND		ug/kg	0.92	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	--	1
Isopropylbenzene	ND		ug/kg	0.92	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	--	1
Methyl Acetate	ND		ug/kg	3.7	--	1
Cyclohexane	ND		ug/kg	9.2	--	1
1,4-Dioxane	ND		ug/kg	74	--	1
Freon-113	ND		ug/kg	3.7	--	1
Methyl cyclohexane	ND		ug/kg	3.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	111		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-05
Client ID: CF-3
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 14:18
Analyst: MKS
Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.4	--	1
1,1-Dichloroethane	ND		ug/kg	1.1	--	1
Chloroform	ND		ug/kg	1.6	--	1
Carbon tetrachloride	ND		ug/kg	1.1	--	1
1,2-Dichloropropane	ND		ug/kg	1.1	--	1
Dibromochloromethane	ND		ug/kg	1.1	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	--	1
Tetrachloroethene	ND		ug/kg	0.54	--	1
Chlorobenzene	ND		ug/kg	0.54	--	1
Trichlorofluoromethane	ND		ug/kg	4.3	--	1
1,2-Dichloroethane	ND		ug/kg	1.1	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	--	1
Bromodichloromethane	ND		ug/kg	0.54	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	--	1
Bromoform	ND		ug/kg	4.3	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	--	1
Benzene	ND		ug/kg	0.54	--	1
Toluene	ND		ug/kg	1.1	--	1
Ethylbenzene	ND		ug/kg	1.1	--	1
Chloromethane	ND		ug/kg	4.3	--	1
Bromomethane	ND		ug/kg	2.1	--	1
Vinyl chloride	ND		ug/kg	1.1	--	1
Chloroethane	ND		ug/kg	2.1	--	1
1,1-Dichloroethene	ND		ug/kg	1.1	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	--	1
Trichloroethene	ND		ug/kg	0.54	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-05 Date Collected: 12/17/24 10:00

Client ID: CF-3 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.1	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	--	1
Methyl tert butyl ether	ND		ug/kg	2.1	--	1
p/m-Xylene	ND		ug/kg	2.1	--	1
o-Xylene	ND		ug/kg	1.1	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	--	1
Styrene	ND		ug/kg	1.1	--	1
Dichlorodifluoromethane	ND		ug/kg	11	--	1
Acetone	ND		ug/kg	11	--	1
Carbon disulfide	ND		ug/kg	11	--	1
2-Butanone	ND		ug/kg	11	--	1
4-Methyl-2-pentanone	ND		ug/kg	11	--	1
2-Hexanone	ND		ug/kg	11	--	1
Bromochloromethane	ND		ug/kg	2.1	--	1
1,2-Dibromoethane	ND		ug/kg	1.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	--	1
Isopropylbenzene	ND		ug/kg	1.1	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	--	1
Methyl Acetate	ND		ug/kg	4.3	--	1
Cyclohexane	ND		ug/kg	11	--	1
1,4-Dioxane	ND		ug/kg	86	--	1
Freon-113	ND		ug/kg	4.3	--	1
Methyl cyclohexane	ND		ug/kg	4.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	113		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-06
Client ID: CF-3A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:15
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 14:44
Analyst: MKS
Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.4	--	1
1,1-Dichloroethane	ND		ug/kg	1.1	--	1
Chloroform	ND		ug/kg	1.6	--	1
Carbon tetrachloride	ND		ug/kg	1.1	--	1
1,2-Dichloropropane	ND		ug/kg	1.1	--	1
Dibromochloromethane	ND		ug/kg	1.1	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	--	1
Tetrachloroethene	ND		ug/kg	0.54	--	1
Chlorobenzene	ND		ug/kg	0.54	--	1
Trichlorofluoromethane	ND		ug/kg	4.3	--	1
1,2-Dichloroethane	ND		ug/kg	1.1	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	--	1
Bromodichloromethane	ND		ug/kg	0.54	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	--	1
Bromoform	ND		ug/kg	4.3	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	--	1
Benzene	ND		ug/kg	0.54	--	1
Toluene	ND		ug/kg	1.1	--	1
Ethylbenzene	ND		ug/kg	1.1	--	1
Chloromethane	ND		ug/kg	4.3	--	1
Bromomethane	ND		ug/kg	2.2	--	1
Vinyl chloride	ND		ug/kg	1.1	--	1
Chloroethane	ND		ug/kg	2.2	--	1
1,1-Dichloroethene	ND		ug/kg	1.1	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	--	1
Trichloroethene	ND		ug/kg	0.54	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-06 Date Collected: 12/17/24 10:15

Client ID: CF-3A Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.2	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	--	1
Methyl tert butyl ether	ND		ug/kg	2.2	--	1
p/m-Xylene	ND		ug/kg	2.2	--	1
o-Xylene	ND		ug/kg	1.1	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	--	1
Styrene	ND		ug/kg	1.1	--	1
Dichlorodifluoromethane	ND		ug/kg	11	--	1
Acetone	ND		ug/kg	11	--	1
Carbon disulfide	ND		ug/kg	11	--	1
2-Butanone	ND		ug/kg	11	--	1
4-Methyl-2-pentanone	ND		ug/kg	11	--	1
2-Hexanone	ND		ug/kg	11	--	1
Bromochloromethane	ND		ug/kg	2.2	--	1
1,2-Dibromoethane	ND		ug/kg	1.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	--	1
Isopropylbenzene	ND		ug/kg	1.1	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	--	1
Methyl Acetate	ND		ug/kg	4.3	--	1
Cyclohexane	ND		ug/kg	11	--	1
1,4-Dioxane	ND		ug/kg	86	--	1
Freon-113	ND		ug/kg	4.3	--	1
Methyl cyclohexane	ND		ug/kg	4.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	113		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-07
Client ID: CF-4
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 15:10
Analyst: MKS
Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.5	--	1
1,1-Dichloroethane	ND		ug/kg	1.1	--	1
Chloroform	ND		ug/kg	1.7	--	1
Carbon tetrachloride	ND		ug/kg	1.1	--	1
1,2-Dichloropropane	ND		ug/kg	1.1	--	1
Dibromochloromethane	ND		ug/kg	1.1	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	--	1
Tetrachloroethene	ND		ug/kg	0.55	--	1
Chlorobenzene	ND		ug/kg	0.55	--	1
Trichlorofluoromethane	ND		ug/kg	4.4	--	1
1,2-Dichloroethane	ND		ug/kg	1.1	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.55	--	1
Bromodichloromethane	ND		ug/kg	0.55	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.55	--	1
Bromoform	ND		ug/kg	4.4	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.55	--	1
Benzene	ND		ug/kg	0.55	--	1
Toluene	ND		ug/kg	1.1	--	1
Ethylbenzene	ND		ug/kg	1.1	--	1
Chloromethane	ND		ug/kg	4.4	--	1
Bromomethane	ND		ug/kg	2.2	--	1
Vinyl chloride	ND		ug/kg	1.1	--	1
Chloroethane	ND		ug/kg	2.2	--	1
1,1-Dichloroethene	ND		ug/kg	1.1	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	--	1
Trichloroethene	ND		ug/kg	0.55	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-07 Date Collected: 12/17/24 10:30

Client ID: CF-4 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.2	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	--	1
Methyl tert butyl ether	ND		ug/kg	2.2	--	1
p/m-Xylene	ND		ug/kg	2.2	--	1
o-Xylene	ND		ug/kg	1.1	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	--	1
Styrene	ND		ug/kg	1.1	--	1
Dichlorodifluoromethane	ND		ug/kg	11	--	1
Acetone	ND		ug/kg	11	--	1
Carbon disulfide	ND		ug/kg	11	--	1
2-Butanone	ND		ug/kg	11	--	1
4-Methyl-2-pentanone	ND		ug/kg	11	--	1
2-Hexanone	ND		ug/kg	11	--	1
Bromochloromethane	ND		ug/kg	2.2	--	1
1,2-Dibromoethane	ND		ug/kg	1.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	--	1
Isopropylbenzene	ND		ug/kg	1.1	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	--	1
Methyl Acetate	ND		ug/kg	4.4	--	1
Cyclohexane	ND		ug/kg	11	--	1
1,4-Dioxane	ND		ug/kg	88	--	1
Freon-113	ND		ug/kg	4.4	--	1
Methyl cyclohexane	ND		ug/kg	4.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	113		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-08
Client ID: CF-4A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:45
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 15:36
Analyst: MKS
Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.2	--	1
1,1-Dichloroethane	ND		ug/kg	1.2	--	1
Chloroform	ND		ug/kg	1.9	--	1
Carbon tetrachloride	ND		ug/kg	1.2	--	1
1,2-Dichloropropane	ND		ug/kg	1.2	--	1
Dibromochloromethane	ND		ug/kg	1.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	--	1
Tetrachloroethene	ND		ug/kg	0.62	--	1
Chlorobenzene	ND		ug/kg	0.62	--	1
Trichlorofluoromethane	ND		ug/kg	5.0	--	1
1,2-Dichloroethane	ND		ug/kg	1.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.62	--	1
Bromodichloromethane	ND		ug/kg	0.62	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.62	--	1
Bromoform	ND		ug/kg	5.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.62	--	1
Benzene	ND		ug/kg	0.62	--	1
Toluene	ND		ug/kg	1.2	--	1
Ethylbenzene	ND		ug/kg	1.2	--	1
Chloromethane	ND		ug/kg	5.0	--	1
Bromomethane	ND		ug/kg	2.5	--	1
Vinyl chloride	ND		ug/kg	1.2	--	1
Chloroethane	ND		ug/kg	2.5	--	1
1,1-Dichloroethene	ND		ug/kg	1.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	--	1
Trichloroethene	ND		ug/kg	0.62	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-08 Date Collected: 12/17/24 10:45

Client ID: CF-4A Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.5	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	--	1
Methyl tert butyl ether	ND		ug/kg	2.5	--	1
p/m-Xylene	ND		ug/kg	2.5	--	1
o-Xylene	ND		ug/kg	1.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	--	1
Styrene	ND		ug/kg	1.2	--	1
Dichlorodifluoromethane	ND		ug/kg	12	--	1
Acetone	ND		ug/kg	12	--	1
Carbon disulfide	ND		ug/kg	12	--	1
2-Butanone	ND		ug/kg	12	--	1
4-Methyl-2-pentanone	ND		ug/kg	12	--	1
2-Hexanone	ND		ug/kg	12	--	1
Bromochloromethane	ND		ug/kg	2.5	--	1
1,2-Dibromoethane	ND		ug/kg	1.2	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	--	1
Isopropylbenzene	ND		ug/kg	1.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	--	1
Methyl Acetate	ND		ug/kg	5.0	--	1
Cyclohexane	ND		ug/kg	12	--	1
1,4-Dioxane	ND		ug/kg	100	--	1
Freon-113	ND		ug/kg	5.0	--	1
Methyl cyclohexane	ND		ug/kg	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	113		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-09
Client ID: CF-5
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 16:02
Analyst: MKS
Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.0	--	1
1,1-Dichloroethane	ND		ug/kg	1.2	--	1
Chloroform	ND		ug/kg	1.8	--	1
Carbon tetrachloride	ND		ug/kg	1.2	--	1
1,2-Dichloropropane	ND		ug/kg	1.2	--	1
Dibromochloromethane	ND		ug/kg	1.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	--	1
Tetrachloroethene	ND		ug/kg	0.60	--	1
Chlorobenzene	ND		ug/kg	0.60	--	1
Trichlorofluoromethane	ND		ug/kg	4.8	--	1
1,2-Dichloroethane	ND		ug/kg	1.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.60	--	1
Bromodichloromethane	ND		ug/kg	0.60	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.60	--	1
Bromoform	ND		ug/kg	4.8	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.60	--	1
Benzene	ND		ug/kg	0.60	--	1
Toluene	ND		ug/kg	1.2	--	1
Ethylbenzene	ND		ug/kg	1.2	--	1
Chloromethane	ND		ug/kg	4.8	--	1
Bromomethane	ND		ug/kg	2.4	--	1
Vinyl chloride	ND		ug/kg	1.2	--	1
Chloroethane	ND		ug/kg	2.4	--	1
1,1-Dichloroethene	ND		ug/kg	1.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	--	1
Trichloroethene	ND		ug/kg	0.60	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-09 Date Collected: 12/17/24 11:00

Client ID: CF-5 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.4	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	--	1
Methyl tert butyl ether	ND		ug/kg	2.4	--	1
p/m-Xylene	ND		ug/kg	2.4	--	1
o-Xylene	ND		ug/kg	1.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	--	1
Styrene	ND		ug/kg	1.2	--	1
Dichlorodifluoromethane	ND		ug/kg	12	--	1
Acetone	ND		ug/kg	12	--	1
Carbon disulfide	ND		ug/kg	12	--	1
2-Butanone	ND		ug/kg	12	--	1
4-Methyl-2-pentanone	ND		ug/kg	12	--	1
2-Hexanone	ND		ug/kg	12	--	1
Bromochloromethane	ND		ug/kg	2.4	--	1
1,2-Dibromoethane	ND		ug/kg	1.2	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	--	1
Isopropylbenzene	ND		ug/kg	1.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	--	1
Methyl Acetate	ND		ug/kg	4.8	--	1
Cyclohexane	ND		ug/kg	12	--	1
1,4-Dioxane	ND		ug/kg	95	--	1
Freon-113	ND		ug/kg	4.8	--	1
Methyl cyclohexane	ND		ug/kg	4.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	113		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-10
Client ID: CF-5A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:15
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 16:28
Analyst: MKS
Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.7	--	1
1,1-Dichloroethane	ND		ug/kg	1.1	--	1
Chloroform	ND		ug/kg	1.7	--	1
Carbon tetrachloride	ND		ug/kg	1.1	--	1
1,2-Dichloropropane	ND		ug/kg	1.1	--	1
Dibromochloromethane	ND		ug/kg	1.1	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	--	1
Tetrachloroethene	ND		ug/kg	0.57	--	1
Chlorobenzene	ND		ug/kg	0.57	--	1
Trichlorofluoromethane	ND		ug/kg	4.6	--	1
1,2-Dichloroethane	ND		ug/kg	1.1	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.57	--	1
Bromodichloromethane	ND		ug/kg	0.57	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.57	--	1
Bromoform	ND		ug/kg	4.6	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.57	--	1
Benzene	ND		ug/kg	0.57	--	1
Toluene	ND		ug/kg	1.1	--	1
Ethylbenzene	ND		ug/kg	1.1	--	1
Chloromethane	ND		ug/kg	4.6	--	1
Bromomethane	ND		ug/kg	2.3	--	1
Vinyl chloride	ND		ug/kg	1.1	--	1
Chloroethane	ND		ug/kg	2.3	--	1
1,1-Dichloroethene	ND		ug/kg	1.1	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	--	1
Trichloroethene	ND		ug/kg	0.57	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-10 Date Collected: 12/17/24 11:15

Client ID: CF-5A Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	--	1
Methyl tert butyl ether	ND		ug/kg	2.3	--	1
p/m-Xylene	ND		ug/kg	2.3	--	1
o-Xylene	ND		ug/kg	1.1	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	--	1
Styrene	ND		ug/kg	1.1	--	1
Dichlorodifluoromethane	ND		ug/kg	11	--	1
Acetone	ND		ug/kg	11	--	1
Carbon disulfide	ND		ug/kg	11	--	1
2-Butanone	ND		ug/kg	11	--	1
4-Methyl-2-pentanone	ND		ug/kg	11	--	1
2-Hexanone	ND		ug/kg	11	--	1
Bromochloromethane	ND		ug/kg	2.3	--	1
1,2-Dibromoethane	ND		ug/kg	1.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	--	1
Isopropylbenzene	ND		ug/kg	1.1	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	--	1
Methyl Acetate	ND		ug/kg	4.6	--	1
Cyclohexane	ND		ug/kg	11	--	1
1,4-Dioxane	ND		ug/kg	92	--	1
Freon-113	ND		ug/kg	4.6	--	1
Methyl cyclohexane	ND		ug/kg	4.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	115		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-11
Client ID: CF-6
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 16:54
Analyst: MKS
Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.2	--	1
1,1-Dichloroethane	ND		ug/kg	1.2	--	1
Chloroform	ND		ug/kg	1.9	--	1
Carbon tetrachloride	ND		ug/kg	1.2	--	1
1,2-Dichloropropane	ND		ug/kg	1.2	--	1
Dibromochloromethane	ND		ug/kg	1.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	--	1
Tetrachloroethene	ND		ug/kg	0.62	--	1
Chlorobenzene	ND		ug/kg	0.62	--	1
Trichlorofluoromethane	ND		ug/kg	5.0	--	1
1,2-Dichloroethane	ND		ug/kg	1.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.62	--	1
Bromodichloromethane	ND		ug/kg	0.62	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.62	--	1
Bromoform	ND		ug/kg	5.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.62	--	1
Benzene	ND		ug/kg	0.62	--	1
Toluene	ND		ug/kg	1.2	--	1
Ethylbenzene	ND		ug/kg	1.2	--	1
Chloromethane	ND		ug/kg	5.0	--	1
Bromomethane	ND		ug/kg	2.5	--	1
Vinyl chloride	ND		ug/kg	1.2	--	1
Chloroethane	ND		ug/kg	2.5	--	1
1,1-Dichloroethene	ND		ug/kg	1.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	--	1
Trichloroethene	ND		ug/kg	0.62	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-11 Date Collected: 12/17/24 11:30

Client ID: CF-6 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.5	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	--	1
Methyl tert butyl ether	ND		ug/kg	2.5	--	1
p/m-Xylene	ND		ug/kg	2.5	--	1
o-Xylene	ND		ug/kg	1.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	--	1
Styrene	ND		ug/kg	1.2	--	1
Dichlorodifluoromethane	ND		ug/kg	12	--	1
Acetone	ND		ug/kg	12	--	1
Carbon disulfide	ND		ug/kg	12	--	1
2-Butanone	ND		ug/kg	12	--	1
4-Methyl-2-pentanone	ND		ug/kg	12	--	1
2-Hexanone	ND		ug/kg	12	--	1
Bromochloromethane	ND		ug/kg	2.5	--	1
1,2-Dibromoethane	ND		ug/kg	1.2	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.7	--	1
Isopropylbenzene	ND		ug/kg	1.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	--	1
Methyl Acetate	ND		ug/kg	5.0	--	1
Cyclohexane	ND		ug/kg	12	--	1
1,4-Dioxane	ND		ug/kg	100	--	1
Freon-113	ND		ug/kg	5.0	--	1
Methyl cyclohexane	ND		ug/kg	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	114		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-12
Client ID: CF-6A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:45
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 17:20
Analyst: MKS
Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.6	--	1
1,1-Dichloroethane	ND		ug/kg	1.1	--	1
Chloroform	ND		ug/kg	1.7	--	1
Carbon tetrachloride	ND		ug/kg	1.1	--	1
1,2-Dichloropropane	ND		ug/kg	1.1	--	1
Dibromochloromethane	ND		ug/kg	1.1	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	--	1
Tetrachloroethene	ND		ug/kg	0.56	--	1
Chlorobenzene	ND		ug/kg	0.56	--	1
Trichlorofluoromethane	ND		ug/kg	4.5	--	1
1,2-Dichloroethane	ND		ug/kg	1.1	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.56	--	1
Bromodichloromethane	ND		ug/kg	0.56	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.56	--	1
Bromoform	ND		ug/kg	4.5	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.56	--	1
Benzene	ND		ug/kg	0.56	--	1
Toluene	ND		ug/kg	1.1	--	1
Ethylbenzene	ND		ug/kg	1.1	--	1
Chloromethane	ND		ug/kg	4.5	--	1
Bromomethane	ND		ug/kg	2.2	--	1
Vinyl chloride	ND		ug/kg	1.1	--	1
Chloroethane	ND		ug/kg	2.2	--	1
1,1-Dichloroethene	ND		ug/kg	1.1	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	--	1
Trichloroethene	ND		ug/kg	0.56	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-12 Date Collected: 12/17/24 11:45

Client ID: CF-6A Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.2	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	--	1
Methyl tert butyl ether	ND		ug/kg	2.2	--	1
p/m-Xylene	ND		ug/kg	2.2	--	1
o-Xylene	ND		ug/kg	1.1	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	--	1
Styrene	ND		ug/kg	1.1	--	1
Dichlorodifluoromethane	ND		ug/kg	11	--	1
Acetone	ND		ug/kg	11	--	1
Carbon disulfide	ND		ug/kg	11	--	1
2-Butanone	ND		ug/kg	11	--	1
4-Methyl-2-pentanone	ND		ug/kg	11	--	1
2-Hexanone	ND		ug/kg	11	--	1
Bromochloromethane	ND		ug/kg	2.2	--	1
1,2-Dibromoethane	ND		ug/kg	1.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	--	1
Isopropylbenzene	ND		ug/kg	1.1	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	--	1
Methyl Acetate	ND		ug/kg	4.5	--	1
Cyclohexane	ND		ug/kg	11	--	1
1,4-Dioxane	ND		ug/kg	90	--	1
Freon-113	ND		ug/kg	4.5	--	1
Methyl cyclohexane	ND		ug/kg	4.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	112		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-13
Client ID: CF-7
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 17:46
Analyst: MKS
Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.1	--	1
1,1-Dichloroethane	ND		ug/kg	1.2	--	1
Chloroform	ND		ug/kg	1.8	--	1
Carbon tetrachloride	ND		ug/kg	1.2	--	1
1,2-Dichloropropane	ND		ug/kg	1.2	--	1
Dibromochloromethane	ND		ug/kg	1.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	--	1
Tetrachloroethene	ND		ug/kg	0.61	--	1
Chlorobenzene	ND		ug/kg	0.61	--	1
Trichlorofluoromethane	ND		ug/kg	4.9	--	1
1,2-Dichloroethane	ND		ug/kg	1.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.61	--	1
Bromodichloromethane	ND		ug/kg	0.61	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.61	--	1
Bromoform	ND		ug/kg	4.9	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.61	--	1
Benzene	ND		ug/kg	0.61	--	1
Toluene	ND		ug/kg	1.2	--	1
Ethylbenzene	ND		ug/kg	1.2	--	1
Chloromethane	ND		ug/kg	4.9	--	1
Bromomethane	ND		ug/kg	2.4	--	1
Vinyl chloride	ND		ug/kg	1.2	--	1
Chloroethane	ND		ug/kg	2.4	--	1
1,1-Dichloroethene	ND		ug/kg	1.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	--	1
Trichloroethene	ND		ug/kg	0.61	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-13 Date Collected: 12/17/24 12:00

Client ID: CF-7 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.4	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	--	1
Methyl tert butyl ether	ND		ug/kg	2.4	--	1
p/m-Xylene	ND		ug/kg	2.4	--	1
o-Xylene	ND		ug/kg	1.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	--	1
Styrene	ND		ug/kg	1.2	--	1
Dichlorodifluoromethane	ND		ug/kg	12	--	1
Acetone	ND		ug/kg	12	--	1
Carbon disulfide	ND		ug/kg	12	--	1
2-Butanone	ND		ug/kg	12	--	1
4-Methyl-2-pentanone	ND		ug/kg	12	--	1
2-Hexanone	ND		ug/kg	12	--	1
Bromochloromethane	ND		ug/kg	2.4	--	1
1,2-Dibromoethane	ND		ug/kg	1.2	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	--	1
Isopropylbenzene	ND		ug/kg	1.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	--	1
Methyl Acetate	ND		ug/kg	4.9	--	1
Cyclohexane	ND		ug/kg	12	--	1
1,4-Dioxane	ND		ug/kg	97	--	1
Freon-113	ND		ug/kg	4.9	--	1
Methyl cyclohexane	ND		ug/kg	4.9	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	112		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-14
Client ID: CF-7A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:15
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 18:12
Analyst: MKS
Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.5	--	1
1,1-Dichloroethane	ND		ug/kg	1.1	--	1
Chloroform	ND		ug/kg	1.6	--	1
Carbon tetrachloride	ND		ug/kg	1.1	--	1
1,2-Dichloropropane	ND		ug/kg	1.1	--	1
Dibromochloromethane	ND		ug/kg	1.1	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	--	1
Tetrachloroethene	ND		ug/kg	0.55	--	1
Chlorobenzene	ND		ug/kg	0.55	--	1
Trichlorofluoromethane	ND		ug/kg	4.4	--	1
1,2-Dichloroethane	ND		ug/kg	1.1	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.55	--	1
Bromodichloromethane	ND		ug/kg	0.55	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.55	--	1
Bromoform	ND		ug/kg	4.4	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.55	--	1
Benzene	ND		ug/kg	0.55	--	1
Toluene	ND		ug/kg	1.1	--	1
Ethylbenzene	ND		ug/kg	1.1	--	1
Chloromethane	ND		ug/kg	4.4	--	1
Bromomethane	ND		ug/kg	2.2	--	1
Vinyl chloride	ND		ug/kg	1.1	--	1
Chloroethane	ND		ug/kg	2.2	--	1
1,1-Dichloroethene	ND		ug/kg	1.1	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	--	1
Trichloroethene	ND		ug/kg	0.55	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-14 Date Collected: 12/17/24 12:15

Client ID: CF-7A Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.2	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	--	1
Methyl tert butyl ether	ND		ug/kg	2.2	--	1
p/m-Xylene	ND		ug/kg	2.2	--	1
o-Xylene	ND		ug/kg	1.1	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	--	1
Styrene	ND		ug/kg	1.1	--	1
Dichlorodifluoromethane	ND		ug/kg	11	--	1
Acetone	ND		ug/kg	11	--	1
Carbon disulfide	ND		ug/kg	11	--	1
2-Butanone	ND		ug/kg	11	--	1
4-Methyl-2-pentanone	ND		ug/kg	11	--	1
2-Hexanone	ND		ug/kg	11	--	1
Bromochloromethane	ND		ug/kg	2.2	--	1
1,2-Dibromoethane	ND		ug/kg	1.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	--	1
Isopropylbenzene	ND		ug/kg	1.1	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	--	1
Methyl Acetate	ND		ug/kg	4.4	--	1
Cyclohexane	ND		ug/kg	11	--	1
1,4-Dioxane	ND		ug/kg	88	--	1
Freon-113	ND		ug/kg	4.4	--	1
Methyl cyclohexane	ND		ug/kg	4.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	114		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-15
Client ID: CF-8
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8260D
Analytical Date: 12/23/24 18:37
Analyst: MKS
Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.4	--	1
1,1-Dichloroethane	ND		ug/kg	1.3	--	1
Chloroform	ND		ug/kg	1.9	--	1
Carbon tetrachloride	ND		ug/kg	1.3	--	1
1,2-Dichloropropane	ND		ug/kg	1.3	--	1
Dibromochloromethane	ND		ug/kg	1.3	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	--	1
Tetrachloroethene	ND		ug/kg	0.64	--	1
Chlorobenzene	ND		ug/kg	0.64	--	1
Trichlorofluoromethane	ND		ug/kg	5.1	--	1
1,2-Dichloroethane	ND		ug/kg	1.3	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.64	--	1
Bromodichloromethane	ND		ug/kg	0.64	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.64	--	1
Bromoform	ND		ug/kg	5.1	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.64	--	1
Benzene	ND		ug/kg	0.64	--	1
Toluene	ND		ug/kg	1.3	--	1
Ethylbenzene	ND		ug/kg	1.3	--	1
Chloromethane	ND		ug/kg	5.1	--	1
Bromomethane	ND		ug/kg	2.6	--	1
Vinyl chloride	ND		ug/kg	1.3	--	1
Chloroethane	ND		ug/kg	2.6	--	1
1,1-Dichloroethene	ND		ug/kg	1.3	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	--	1
Trichloroethene	ND		ug/kg	0.64	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.6	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-15 Date Collected: 12/17/24 12:30

Client ID: CF-8 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.6	--	1
Methyl tert butyl ether	ND		ug/kg	2.6	--	1
p/m-Xylene	ND		ug/kg	2.6	--	1
o-Xylene	ND		ug/kg	1.3	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	--	1
Styrene	ND		ug/kg	1.3	--	1
Dichlorodifluoromethane	ND		ug/kg	13	--	1
Acetone	ND		ug/kg	13	--	1
Carbon disulfide	ND		ug/kg	13	--	1
2-Butanone	ND		ug/kg	13	--	1
4-Methyl-2-pentanone	ND		ug/kg	13	--	1
2-Hexanone	ND		ug/kg	13	--	1
Bromochloromethane	ND		ug/kg	2.6	--	1
1,2-Dibromoethane	ND		ug/kg	1.3	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.9	--	1
Isopropylbenzene	ND		ug/kg	1.3	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.6	--	1
Methyl Acetate	ND		ug/kg	5.1	--	1
Cyclohexane	ND		ug/kg	13	--	1
1,4-Dioxane	ND		ug/kg	100	--	1
Freon-113	ND		ug/kg	5.1	--	1
Methyl cyclohexane	ND		ug/kg	5.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	114		70-130

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/23/24 12:09
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-15 Batch: WG2013130-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	0.50	--
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/23/24 12:09
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-15 Batch: WG2013130-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	10	--
Carbon disulfide	ND		ug/kg	10	--
2-Butanone	ND		ug/kg	10	--
4-Methyl-2-pentanone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
Methyl Acetate	ND		ug/kg	4.0	--
Cyclohexane	ND		ug/kg	10	--
1,4-Dioxane	ND		ug/kg	80	--
Freon-113	ND		ug/kg	4.0	--
Methyl cyclohexane	ND		ug/kg	4.0	--

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/23/24 12:09
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-15 Batch: WG2013130-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	110		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-15 Batch: WG2013130-3 WG2013130-4								
Methylene chloride	113		108		70-130	5		30
1,1-Dichloroethane	113		111		70-130	2		30
Chloroform	113		111		70-130	2		30
Carbon tetrachloride	109		108		70-130	1		30
1,2-Dichloropropane	112		112		70-130	0		30
Dibromochloromethane	96		97		70-130	1		30
1,1,2-Trichloroethane	98		98		70-130	0		30
Tetrachloroethene	92		93		70-130	1		30
Chlorobenzene	94		93		70-130	1		30
Trichlorofluoromethane	118		112		70-139	5		30
1,2-Dichloroethane	115		116		70-130	1		30
1,1,1-Trichloroethane	108		107		70-130	1		30
Bromodichloromethane	108		108		70-130	0		30
trans-1,3-Dichloropropene	103		102		70-130	1		30
cis-1,3-Dichloropropene	112		111		70-130	1		30
Bromoform	99		96		70-130	3		30
1,1,2,2-Tetrachloroethane	88		91		70-130	3		30
Benzene	111		110		70-130	1		30
Toluene	97		97		70-130	0		30
Ethylbenzene	98		98		70-130	0		30
Chloromethane	104		97		52-130	7		30
Bromomethane	119		120		57-147	1		30
Vinyl chloride	104		104		67-130	0		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-15 Batch: WG2013130-3 WG2013130-4								
Chloroethane	110		111		50-151	1		30
1,1-Dichloroethene	109		105		65-135	4		30
trans-1,2-Dichloroethene	109		107		70-130	2		30
Trichloroethene	118		111		70-130	6		30
1,2-Dichlorobenzene	96		95		70-130	1		30
1,3-Dichlorobenzene	96		96		70-130	0		30
1,4-Dichlorobenzene	96		95		70-130	1		30
Methyl tert butyl ether	117		115		66-130	2		30
p/m-Xylene	95		96		70-130	1		30
o-Xylene	94		95		70-130	1		30
cis-1,2-Dichloroethene	111		109		70-130	2		30
Styrene	95		97		70-130	2		30
Dichlorodifluoromethane	90		85		30-146	6		30
Acetone	126		116		54-140	8		30
Carbon disulfide	108		103		59-130	5		30
2-Butanone	120		113		70-130	6		30
4-Methyl-2-pentanone	101		100		70-130	1		30
2-Hexanone	102		101		70-130	1		30
Bromochloromethane	114		112		70-130	2		30
1,2-Dibromoethane	97		97		70-130	0		30
1,2-Dibromo-3-chloropropane	92		91		68-130	1		30
Isopropylbenzene	98		95		70-130	3		30
1,2,3-Trichlorobenzene	97		96		70-130	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA
Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-15 Batch: WG2013130-3 WG2013130-4								
1,2,4-Trichlorobenzene	99		98		70-130	1		30
Methyl Acetate	140		137		51-146	2		30
Cyclohexane	106		104		59-142	2		30
1,4-Dioxane	110		109		65-136	1		30
Freon-113	111		108		50-139	3		30
Methyl cyclohexane	110		110		70-130	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103		101		70-130
Toluene-d8	94		93		70-130
4-Bromofluorobenzene	96		98		70-130
Dibromofluoromethane	106		104		70-130

SEMIVOLATILES

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-01
Client ID: CF-1
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8270E
Analytical Date: 12/23/24 13:29
Analyst: MRG
Percent Solids: 93%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Hexachlorobenzene	ND		ug/kg	110	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	180	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	--	1
2,4-Dinitrotoluene	ND		ug/kg	180	--	1
2,6-Dinitrotoluene	ND		ug/kg	180	--	1
Fluoranthene	ND		ug/kg	110	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Hexachlorocyclopentadiene	ND		ug/kg	510	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	180	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	--	1
Butyl benzyl phthalate	ND		ug/kg	180	--	1
Di-n-butylphthalate	ND		ug/kg	180	--	1
Di-n-octylphthalate	ND		ug/kg	180	--	1
Diethyl phthalate	ND		ug/kg	180	--	1
Dimethyl phthalate	ND		ug/kg	180	--	1
Benzo(a)anthracene	ND		ug/kg	110	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-01 Date Collected: 12/17/24 09:00

Client ID: CF-1 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	110	--	1
Benzo(k)fluoranthene	ND		ug/kg	110	--	1
Chrysene	ND		ug/kg	110	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	110	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	180	--	1
Phenanthrene	ND		ug/kg	110	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	110	--	1
Biphenyl	ND		ug/kg	400	--	1
4-Chloroaniline	ND		ug/kg	180	--	1
2-Nitroaniline	ND		ug/kg	180	--	1
3-Nitroaniline	ND		ug/kg	180	--	1
4-Nitroaniline	ND		ug/kg	180	--	1
Dibenzofuran	ND		ug/kg	180	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	--	1
Acetophenone	ND		ug/kg	180	--	1
2,4,6-Trichlorophenol	ND		ug/kg	110	--	1
p-Chloro-m-cresol	ND		ug/kg	180	--	1
2-Chlorophenol	ND		ug/kg	180	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	180	--	1
2-Nitrophenol	ND		ug/kg	380	--	1
4-Nitrophenol	ND		ug/kg	250	--	1
2,4-Dinitrophenol	ND		ug/kg	850	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	--	1
Pentachlorophenol	ND		ug/kg	140	--	1
Phenol	ND		ug/kg	180	--	1
2-Methylphenol	ND		ug/kg	180	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	--	1
2,4,5-Trichlorophenol	ND		ug/kg	180	--	1
Carbazole	ND		ug/kg	180	--	1
Atrazine	ND		ug/kg	140	--	1
Benzaldehyde	ND		ug/kg	230	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-01 Date Collected: 12/17/24 09:00

Client ID: CF-1 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	180	--	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		25-120
Phenol-d6	83		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	81		30-120
2,4,6-Tribromophenol	75		10-136
4-Terphenyl-d14	84		18-120

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-03
Client ID: CF-2
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8270E
Analytical Date: 12/23/24 13:53
Analyst: MRG
Percent Solids: 93%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Fluoranthene	ND		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachlorocyclopentadiene	ND		ug/kg	500	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	ND		ug/kg	100	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-03 Date Collected: 12/17/24 09:30

Client ID: CF-2 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	100	--	1
Benzo(k)fluoranthene	ND		ug/kg	100	--	1
Chrysene	ND		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	100	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	170	--	1
Phenanthrene	ND		ug/kg	100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	100	--	1
Biphenyl	ND		ug/kg	400	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
2-Nitroaniline	ND		ug/kg	170	--	1
3-Nitroaniline	ND		ug/kg	170	--	1
4-Nitroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	--	1
Acetophenone	ND		ug/kg	170	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	170	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	380	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	840	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	--	1
Pentachlorophenol	ND		ug/kg	140	--	1
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Carbazole	ND		ug/kg	170	--	1
Atrazine	ND		ug/kg	140	--	1
Benzaldehyde	ND		ug/kg	230	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-03 Date Collected: 12/17/24 09:30

Client ID: CF-2 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	170	--	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	170	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		25-120
Phenol-d6	75		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	63		10-136
4-Terphenyl-d14	78		18-120

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-05
Client ID: CF-3
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8270E
Analytical Date: 12/23/24 14:16
Analyst: MRG
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	180	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	--	1
2,4-Dinitrotoluene	ND		ug/kg	180	--	1
2,6-Dinitrotoluene	ND		ug/kg	180	--	1
Fluoranthene	ND		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Hexachlorocyclopentadiene	ND		ug/kg	500	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	180	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	--	1
Butyl benzyl phthalate	ND		ug/kg	180	--	1
Di-n-butylphthalate	ND		ug/kg	180	--	1
Di-n-octylphthalate	ND		ug/kg	180	--	1
Diethyl phthalate	ND		ug/kg	180	--	1
Dimethyl phthalate	ND		ug/kg	180	--	1
Benzo(a)anthracene	ND		ug/kg	100	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-05 Date Collected: 12/17/24 10:00

Client ID: CF-3 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	100	--	1
Benzo(k)fluoranthene	ND		ug/kg	100	--	1
Chrysene	ND		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	100	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	180	--	1
Phenanthrene	ND		ug/kg	100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	100	--	1
Biphenyl	ND		ug/kg	400	--	1
4-Chloroaniline	ND		ug/kg	180	--	1
2-Nitroaniline	ND		ug/kg	180	--	1
3-Nitroaniline	ND		ug/kg	180	--	1
4-Nitroaniline	ND		ug/kg	180	--	1
Dibenzofuran	ND		ug/kg	180	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	--	1
Acetophenone	ND		ug/kg	180	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	180	--	1
2-Chlorophenol	ND		ug/kg	180	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	180	--	1
2-Nitrophenol	ND		ug/kg	380	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	840	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	--	1
Pentachlorophenol	ND		ug/kg	140	--	1
Phenol	ND		ug/kg	180	--	1
2-Methylphenol	ND		ug/kg	180	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	180	--	1
Carbazole	ND		ug/kg	180	--	1
Atrazine	ND		ug/kg	140	--	1
Benzaldehyde	ND		ug/kg	230	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-05 Date Collected: 12/17/24 10:00

Client ID: CF-3 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	180	--	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	73		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	65		10-136
4-Terphenyl-d14	77		18-120

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-07
Client ID: CF-4
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8270E
Analytical Date: 12/23/24 14:39
Analyst: MRG
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Fluoranthene	ND		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachlorocyclopentadiene	ND		ug/kg	490	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	ND		ug/kg	100	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-07 Date Collected: 12/17/24 10:30

Client ID: CF-4 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	100	--	1
Benzo(k)fluoranthene	ND		ug/kg	100	--	1
Chrysene	ND		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	100	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	170	--	1
Phenanthrene	ND		ug/kg	100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	100	--	1
Biphenyl	ND		ug/kg	390	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
2-Nitroaniline	ND		ug/kg	170	--	1
3-Nitroaniline	ND		ug/kg	170	--	1
4-Nitroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	--	1
Acetophenone	ND		ug/kg	170	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	170	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	370	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	830	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	--	1
Pentachlorophenol	ND		ug/kg	140	--	1
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Carbazole	ND		ug/kg	170	--	1
Atrazine	ND		ug/kg	140	--	1
Benzaldehyde	ND		ug/kg	230	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-07 Date Collected: 12/17/24 10:30

Client ID: CF-4 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	170	--	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	170	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		25-120
Phenol-d6	75		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	63		10-136
4-Terphenyl-d14	79		18-120

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-09
Client ID: CF-5
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8270E
Analytical Date: 12/23/24 15:02
Analyst: MRG
Percent Solids: 90%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	--	1
Hexachlorobenzene	ND		ug/kg	110	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	--	1
2-Chloronaphthalene	ND		ug/kg	180	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	--	1
2,4-Dinitrotoluene	ND		ug/kg	180	--	1
2,6-Dinitrotoluene	ND		ug/kg	180	--	1
Fluoranthene	ND		ug/kg	110	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Hexachlorocyclopentadiene	ND		ug/kg	530	--	1
Hexachloroethane	ND		ug/kg	150	--	1
Isophorone	ND		ug/kg	170	--	1
Naphthalene	ND		ug/kg	180	--	1
Nitrobenzene	ND		ug/kg	170	--	1
NDPA/DPA	ND		ug/kg	150	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	--	1
Butyl benzyl phthalate	ND		ug/kg	180	--	1
Di-n-butylphthalate	ND		ug/kg	180	--	1
Di-n-octylphthalate	ND		ug/kg	180	--	1
Diethyl phthalate	ND		ug/kg	180	--	1
Dimethyl phthalate	ND		ug/kg	180	--	1
Benzo(a)anthracene	ND		ug/kg	110	--	1
Benzo(a)pyrene	ND		ug/kg	150	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-09 Date Collected: 12/17/24 11:00

Client ID: CF-5 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	110	--	1
Benzo(k)fluoranthene	ND		ug/kg	110	--	1
Chrysene	ND		ug/kg	110	--	1
Acenaphthylene	ND		ug/kg	150	--	1
Anthracene	ND		ug/kg	110	--	1
Benzo(ghi)perylene	ND		ug/kg	150	--	1
Fluorene	ND		ug/kg	180	--	1
Phenanthrene	ND		ug/kg	110	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	--	1
Pyrene	ND		ug/kg	110	--	1
Biphenyl	ND		ug/kg	420	--	1
4-Chloroaniline	ND		ug/kg	180	--	1
2-Nitroaniline	ND		ug/kg	180	--	1
3-Nitroaniline	ND		ug/kg	180	--	1
4-Nitroaniline	ND		ug/kg	180	--	1
Dibenzofuran	ND		ug/kg	180	--	1
2-Methylnaphthalene	ND		ug/kg	220	--	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	--	1
Acetophenone	ND		ug/kg	180	--	1
2,4,6-Trichlorophenol	ND		ug/kg	110	--	1
p-Chloro-m-cresol	ND		ug/kg	180	--	1
2-Chlorophenol	ND		ug/kg	180	--	1
2,4-Dichlorophenol	ND		ug/kg	170	--	1
2,4-Dimethylphenol	ND		ug/kg	180	--	1
2-Nitrophenol	ND		ug/kg	400	--	1
4-Nitrophenol	ND		ug/kg	260	--	1
2,4-Dinitrophenol	ND		ug/kg	890	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	--	1
Pentachlorophenol	ND		ug/kg	150	--	1
Phenol	ND		ug/kg	180	--	1
2-Methylphenol	ND		ug/kg	180	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	--	1
2,4,5-Trichlorophenol	ND		ug/kg	180	--	1
Carbazole	ND		ug/kg	180	--	1
Atrazine	ND		ug/kg	150	--	1
Benzaldehyde	ND		ug/kg	240	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-09 Date Collected: 12/17/24 11:00

Client ID: CF-5 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	180	--	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	75		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	58		10-136
4-Terphenyl-d14	79		18-120

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-11
Client ID: CF-6
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8270E
Analytical Date: 12/23/24 15:26
Analyst: MRG
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Fluoranthene	ND		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachlorocyclopentadiene	ND		ug/kg	490	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	ND		ug/kg	100	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-11 Date Collected: 12/17/24 11:30

Client ID: CF-6 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	100	--	1
Benzo(k)fluoranthene	ND		ug/kg	100	--	1
Chrysene	ND		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	100	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	170	--	1
Phenanthrene	ND		ug/kg	100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	100	--	1
Biphenyl	ND		ug/kg	390	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
2-Nitroaniline	ND		ug/kg	170	--	1
3-Nitroaniline	ND		ug/kg	170	--	1
4-Nitroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	--	1
Acetophenone	ND		ug/kg	170	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	170	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	370	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	830	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	--	1
Pentachlorophenol	ND		ug/kg	140	--	1
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1
Carbazole	ND		ug/kg	170	--	1
Atrazine	ND		ug/kg	140	--	1
Benzaldehyde	ND		ug/kg	230	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-11 Date Collected: 12/17/24 11:30

Client ID: CF-6 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	170	--	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	170	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	77		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	67		10-136
4-Terphenyl-d14	80		18-120

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-13
Client ID: CF-7
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8270E
Analytical Date: 12/23/24 15:49
Analyst: MRG
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Hexachlorobenzene	ND		ug/kg	110	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	180	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	--	1
2,4-Dinitrotoluene	ND		ug/kg	180	--	1
2,6-Dinitrotoluene	ND		ug/kg	180	--	1
Fluoranthene	ND		ug/kg	110	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Hexachlorocyclopentadiene	ND		ug/kg	500	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	180	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	--	1
Butyl benzyl phthalate	ND		ug/kg	180	--	1
Di-n-butylphthalate	ND		ug/kg	180	--	1
Di-n-octylphthalate	ND		ug/kg	180	--	1
Diethyl phthalate	ND		ug/kg	180	--	1
Dimethyl phthalate	ND		ug/kg	180	--	1
Benzo(a)anthracene	ND		ug/kg	110	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-13 Date Collected: 12/17/24 12:00

Client ID: CF-7 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	110	--	1
Benzo(k)fluoranthene	ND		ug/kg	110	--	1
Chrysene	ND		ug/kg	110	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	110	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	180	--	1
Phenanthrene	ND		ug/kg	110	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	110	--	1
Biphenyl	ND		ug/kg	400	--	1
4-Chloroaniline	ND		ug/kg	180	--	1
2-Nitroaniline	ND		ug/kg	180	--	1
3-Nitroaniline	ND		ug/kg	180	--	1
4-Nitroaniline	ND		ug/kg	180	--	1
Dibenzofuran	ND		ug/kg	180	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	--	1
Acetophenone	ND		ug/kg	180	--	1
2,4,6-Trichlorophenol	ND		ug/kg	110	--	1
p-Chloro-m-cresol	ND		ug/kg	180	--	1
2-Chlorophenol	ND		ug/kg	180	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	180	--	1
2-Nitrophenol	ND		ug/kg	380	--	1
4-Nitrophenol	ND		ug/kg	250	--	1
2,4-Dinitrophenol	ND		ug/kg	850	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	--	1
Pentachlorophenol	ND		ug/kg	140	--	1
Phenol	ND		ug/kg	180	--	1
2-Methylphenol	ND		ug/kg	180	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	180	--	1
Carbazole	ND		ug/kg	180	--	1
Atrazine	ND		ug/kg	140	--	1
Benzaldehyde	ND		ug/kg	230	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-13 Date Collected: 12/17/24 12:00

Client ID: CF-7 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	180	--	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	75		30-120
2,4,6-Tribromophenol	64		10-136
4-Terphenyl-d14	75		18-120

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-15
Client ID: CF-8
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8270E
Analytical Date: 12/23/24 16:12
Analyst: MRG
Percent Solids: 93%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Hexachlorobenzene	ND		ug/kg	110	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	180	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	--	1
2,4-Dinitrotoluene	ND		ug/kg	180	--	1
2,6-Dinitrotoluene	ND		ug/kg	180	--	1
Fluoranthene	ND		ug/kg	110	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Hexachlorocyclopentadiene	ND		ug/kg	510	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	180	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	--	1
Butyl benzyl phthalate	ND		ug/kg	180	--	1
Di-n-butylphthalate	ND		ug/kg	180	--	1
Di-n-octylphthalate	ND		ug/kg	180	--	1
Diethyl phthalate	ND		ug/kg	180	--	1
Dimethyl phthalate	ND		ug/kg	180	--	1
Benzo(a)anthracene	ND		ug/kg	110	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-15 Date Collected: 12/17/24 12:30

Client ID: CF-8 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	110	--	1
Benzo(k)fluoranthene	ND		ug/kg	110	--	1
Chrysene	ND		ug/kg	110	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	110	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	180	--	1
Phenanthrene	ND		ug/kg	110	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	110	--	1
Biphenyl	ND		ug/kg	400	--	1
4-Chloroaniline	ND		ug/kg	180	--	1
2-Nitroaniline	ND		ug/kg	180	--	1
3-Nitroaniline	ND		ug/kg	180	--	1
4-Nitroaniline	ND		ug/kg	180	--	1
Dibenzofuran	ND		ug/kg	180	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	--	1
Acetophenone	ND		ug/kg	180	--	1
2,4,6-Trichlorophenol	ND		ug/kg	110	--	1
p-Chloro-m-cresol	ND		ug/kg	180	--	1
2-Chlorophenol	ND		ug/kg	180	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	180	--	1
2-Nitrophenol	ND		ug/kg	380	--	1
4-Nitrophenol	ND		ug/kg	250	--	1
2,4-Dinitrophenol	ND		ug/kg	850	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	--	1
Pentachlorophenol	ND		ug/kg	140	--	1
Phenol	ND		ug/kg	180	--	1
2-Methylphenol	ND		ug/kg	180	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	--	1
2,4,5-Trichlorophenol	ND		ug/kg	180	--	1
Carbazole	ND		ug/kg	180	--	1
Atrazine	ND		ug/kg	140	--	1
Benzaldehyde	ND		ug/kg	230	--	1

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-15 Date Collected: 12/17/24 12:30

Client ID: CF-8 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	180	--	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	180	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		25-120
Phenol-d6	73		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	63		10-136
4-Terphenyl-d14	79		18-120

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 12/23/24 12:20
Analyst: MRG

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012164-1					
Acenaphthene	ND		ug/kg	130	--
Hexachlorobenzene	ND		ug/kg	99	--
Bis(2-chloroethyl)ether	ND		ug/kg	150	--
2-Chloronaphthalene	ND		ug/kg	160	--
3,3'-Dichlorobenzidine	ND		ug/kg	160	--
2,4-Dinitrotoluene	ND		ug/kg	160	--
2,6-Dinitrotoluene	ND		ug/kg	160	--
Fluoranthene	ND		ug/kg	99	--
4-Chlorophenyl phenyl ether	ND		ug/kg	160	--
4-Bromophenyl phenyl ether	ND		ug/kg	160	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--
Hexachlorobutadiene	ND		ug/kg	160	--
Hexachlorocyclopentadiene	ND		ug/kg	470	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	150	--
Naphthalene	ND		ug/kg	160	--
Nitrobenzene	ND		ug/kg	150	--
NDPA/DPA	ND		ug/kg	130	--
n-Nitrosodi-n-propylamine	ND		ug/kg	160	--
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	--
Butyl benzyl phthalate	ND		ug/kg	160	--
Di-n-butylphthalate	ND		ug/kg	160	--
Di-n-octylphthalate	ND		ug/kg	160	--
Diethyl phthalate	ND		ug/kg	160	--
Dimethyl phthalate	ND		ug/kg	160	--
Benzo(a)anthracene	ND		ug/kg	99	--
Benzo(a)pyrene	ND		ug/kg	130	--
Benzo(b)fluoranthene	ND		ug/kg	99	--

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 12/23/24 12:20
Analyst: MRG

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012164-1					
Benzo(k)fluoranthene	ND		ug/kg	99	--
Chrysene	ND		ug/kg	99	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	99	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	160	--
Phenanthrene	ND		ug/kg	99	--
Dibenzo(a,h)anthracene	ND		ug/kg	99	--
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	99	--
Biphenyl	ND		ug/kg	380	--
4-Chloroaniline	ND		ug/kg	160	--
2-Nitroaniline	ND		ug/kg	160	--
3-Nitroaniline	ND		ug/kg	160	--
4-Nitroaniline	ND		ug/kg	160	--
Dibenzofuran	ND		ug/kg	160	--
2-Methylnaphthalene	ND		ug/kg	200	--
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	--
Acetophenone	ND		ug/kg	160	--
2,4,6-Trichlorophenol	ND		ug/kg	99	--
p-Chloro-m-cresol	ND		ug/kg	160	--
2-Chlorophenol	ND		ug/kg	160	--
2,4-Dichlorophenol	ND		ug/kg	150	--
2,4-Dimethylphenol	ND		ug/kg	160	--
2-Nitrophenol	ND		ug/kg	360	--
4-Nitrophenol	ND		ug/kg	230	--
2,4-Dinitrophenol	ND		ug/kg	790	--
4,6-Dinitro-o-cresol	ND		ug/kg	430	--
Pentachlorophenol	ND		ug/kg	130	--

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 12/23/24 12:20
Analyst: MRG

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 10:40

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012164-1					
Phenol	ND		ug/kg	160	--
2-Methylphenol	ND		ug/kg	160	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--
2,4,5-Trichlorophenol	ND		ug/kg	160	--
Carbazole	ND		ug/kg	160	--
Atrazine	ND		ug/kg	130	--
Benzaldehyde	ND		ug/kg	220	--
Caprolactam	ND		ug/kg	160	--
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	68		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	63		30-120
2,4,6-Tribromophenol	56		10-136
4-Terphenyl-d14	66		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012164-2 WG2012164-3								
Acenaphthene	61		80		31-137	27		50
Hexachlorobenzene	59		76		40-140	25		50
Bis(2-chloroethyl)ether	59		82		40-140	33		50
2-Chloronaphthalene	60		79		40-140	27		50
3,3'-Dichlorobenzidine	44		53		40-140	19		50
2,4-Dinitrotoluene	76		98		40-132	25		50
2,6-Dinitrotoluene	69		90		40-140	26		50
Fluoranthene	63		82		40-140	26		50
4-Chlorophenyl phenyl ether	61		79		40-140	26		50
4-Bromophenyl phenyl ether	59		77		40-140	26		50
Bis(2-chloroisopropyl)ether	59		83		40-140	34		50
Bis(2-chloroethoxy)methane	62		84		40-117	30		50
Hexachlorobutadiene	50		73		40-140	37		50
Hexachlorocyclopentadiene	54		73		40-140	30		50
Hexachloroethane	57		80		40-140	34		50
Isophorone	61		83		40-140	31		50
Naphthalene	56		78		40-140	33		50
Nitrobenzene	64		89		40-140	33		50
NDPA/DPA	64		83		36-157	26		50
n-Nitrosodi-n-propylamine	62		84		32-121	30		50
Bis(2-ethylhexyl)phthalate	78		100		40-140	25		50
Butyl benzyl phthalate	73		95		40-140	26		50
Di-n-butylphthalate	70		91		40-140	26		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012164-2 WG2012164-3								
Di-n-octylphthalate	81		104		40-140	25		50
Diethyl phthalate	67		87		40-140	26		50
Dimethyl phthalate	63		81		40-140	25		50
Benzo(a)anthracene	64		82		40-140	25		50
Benzo(a)pyrene	68		88		40-140	26		50
Benzo(b)fluoranthene	66		88		40-140	29		50
Benzo(k)fluoranthene	65		81		40-140	22		50
Chrysene	64		82		40-140	25		50
Acenaphthylene	66		88		40-140	29		50
Anthracene	63		84		40-140	29		50
Benzo(ghi)perylene	63		85		40-140	30		50
Fluorene	64		82		40-140	25		50
Phenanthrene	63		82		40-140	26		50
Dibenzo(a,h)anthracene	61		82		40-140	29		50
Indeno(1,2,3-cd)pyrene	61		83		40-140	31		50
Pyrene	62		81		35-142	27		50
Biphenyl	60		82		37-127	31		50
4-Chloroaniline	54		70		40-140	26		50
2-Nitroaniline	75		96		47-134	25		50
3-Nitroaniline	52		64		26-129	21		50
4-Nitroaniline	68		90		41-125	28		50
Dibenzofuran	62		80		40-140	25		50
2-Methylnaphthalene	52		71		40-140	31		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA
Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012164-2 WG2012164-3								
1,2,4,5-Tetrachlorobenzene	57		76		40-117	29		50
Acetophenone	64		88		14-144	32		50
2,4,6-Trichlorophenol	63		82		30-130	26		50
p-Chloro-m-cresol	66		87		26-103	27		50
2-Chlorophenol	58		81		25-102	33		50
2,4-Dichlorophenol	62		83		30-130	29		50
2,4-Dimethylphenol	71		97		30-130	31		50
2-Nitrophenol	67		94		30-130	34		50
4-Nitrophenol	94		114		11-114	19		50
2,4-Dinitrophenol	46		63		4-130	31		50
4,6-Dinitro-o-cresol	70		89		10-130	24		50
Pentachlorophenol	52		72		17-109	32		50
Phenol	56		77		26-90	32		50
2-Methylphenol	61		85		30-130.	33		50
3-Methylphenol/4-Methylphenol	65		87		30-130	29		50
2,4,5-Trichlorophenol	67		85		30-130	24		50
Carbazole	63		84		54-128	29		50
Atrazine	58		76		40-140	27		50
Benzaldehyde	63		85		40-140	30		50
Caprolactam	69		91		15-130	28		50
2,3,4,6-Tetrachlorophenol	65		85		40-140	27		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012164-2 WG2012164-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	55		78		25-120
Phenol-d6	60		81		10-120
Nitrobenzene-d5	62		88		23-120
2-Fluorobiphenyl	57		76		30-120
2,4,6-Tribromophenol	59		77		10-136
4-Terphenyl-d14	58		76		18-120

PCBS

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-01
Client ID: CF-1
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 12/23/24 08:01
Analyst: MHG
Percent Solids: 93%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 16:30
Cleanup Method: EPA 3665A
Cleanup Date: 12/22/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/22/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	103	--	1	A
Aroclor 1221	ND		ug/kg	103	--	1	A
Aroclor 1232	ND		ug/kg	103	--	1	A
Aroclor 1242	ND		ug/kg	103	--	1	A
Aroclor 1248	ND		ug/kg	103	--	1	A
Aroclor 1254	ND		ug/kg	103	--	1	A
Aroclor 1260	ND		ug/kg	103	--	1	A
Aroclor 1262	ND		ug/kg	103	--	1	A
Aroclor 1268	ND		ug/kg	103	--	1	A
PCBs, Total	ND		ug/kg	103	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	98		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-03
Client ID: CF-2
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 12/23/24 08:11
Analyst: MHG
Percent Solids: 93%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 16:30
Cleanup Method: EPA 3665A
Cleanup Date: 12/22/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/22/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	104	--	1	A
Aroclor 1221	ND		ug/kg	104	--	1	A
Aroclor 1232	ND		ug/kg	104	--	1	A
Aroclor 1242	ND		ug/kg	104	--	1	A
Aroclor 1248	ND		ug/kg	104	--	1	A
Aroclor 1254	ND		ug/kg	104	--	1	A
Aroclor 1260	ND		ug/kg	104	--	1	A
Aroclor 1262	ND		ug/kg	104	--	1	A
Aroclor 1268	ND		ug/kg	104	--	1	A
PCBs, Total	ND		ug/kg	104	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	100		30-150	A
Decachlorobiphenyl	125		30-150	A
2,4,5,6-Tetrachloro-m-xylene	99		30-150	B
Decachlorobiphenyl	92		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-05
Client ID: CF-3
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 12/23/24 08:21
Analyst: MHG
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 16:30
Cleanup Method: EPA 3665A
Cleanup Date: 12/22/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/22/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	102	--	1	A
Aroclor 1221	ND		ug/kg	102	--	1	A
Aroclor 1232	ND		ug/kg	102	--	1	A
Aroclor 1242	ND		ug/kg	102	--	1	A
Aroclor 1248	ND		ug/kg	102	--	1	A
Aroclor 1254	ND		ug/kg	102	--	1	A
Aroclor 1260	ND		ug/kg	102	--	1	A
Aroclor 1262	ND		ug/kg	102	--	1	A
Aroclor 1268	ND		ug/kg	102	--	1	A
PCBs, Total	ND		ug/kg	102	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	124		30-150	A
2,4,5,6-Tetrachloro-m-xylene	98		30-150	B
Decachlorobiphenyl	94		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-07
Client ID: CF-4
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 12/23/24 08:31
Analyst: MHG
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 16:30
Cleanup Method: EPA 3665A
Cleanup Date: 12/22/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/22/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	94.2	--	1	A
Aroclor 1221	ND		ug/kg	94.2	--	1	A
Aroclor 1232	ND		ug/kg	94.2	--	1	A
Aroclor 1242	ND		ug/kg	94.2	--	1	A
Aroclor 1248	ND		ug/kg	94.2	--	1	A
Aroclor 1254	ND		ug/kg	94.2	--	1	A
Aroclor 1260	ND		ug/kg	94.2	--	1	A
Aroclor 1262	ND		ug/kg	94.2	--	1	A
Aroclor 1268	ND		ug/kg	94.2	--	1	A
PCBs, Total	ND		ug/kg	94.2	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	99		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	72		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-09
Client ID: CF-5
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 12/23/24 08:41
Analyst: MHG
Percent Solids: 90%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 16:30
Cleanup Method: EPA 3665A
Cleanup Date: 12/22/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/22/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	94.7	--	1	A
Aroclor 1221	ND		ug/kg	94.7	--	1	A
Aroclor 1232	ND		ug/kg	94.7	--	1	A
Aroclor 1242	ND		ug/kg	94.7	--	1	A
Aroclor 1248	ND		ug/kg	94.7	--	1	A
Aroclor 1254	ND		ug/kg	94.7	--	1	A
Aroclor 1260	ND		ug/kg	94.7	--	1	A
Aroclor 1262	ND		ug/kg	94.7	--	1	A
Aroclor 1268	ND		ug/kg	94.7	--	1	A
PCBs, Total	ND		ug/kg	94.7	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	107		30-150	A
Decachlorobiphenyl	134		30-150	A
2,4,5,6-Tetrachloro-m-xylene	107		30-150	B
Decachlorobiphenyl	101		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-11
Client ID: CF-6
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 12/23/24 08:51
Analyst: MHG
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 16:30
Cleanup Method: EPA 3665A
Cleanup Date: 12/22/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/22/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	105	--	1	A
Aroclor 1221	ND		ug/kg	105	--	1	A
Aroclor 1232	ND		ug/kg	105	--	1	A
Aroclor 1242	ND		ug/kg	105	--	1	A
Aroclor 1248	ND		ug/kg	105	--	1	A
Aroclor 1254	ND		ug/kg	105	--	1	A
Aroclor 1260	ND		ug/kg	105	--	1	A
Aroclor 1262	ND		ug/kg	105	--	1	A
Aroclor 1268	ND		ug/kg	105	--	1	A
PCBs, Total	ND		ug/kg	105	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	A
Decachlorobiphenyl	121		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	91		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-13
Client ID: CF-7
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 12/23/24 09:01
Analyst: MHG
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 16:30
Cleanup Method: EPA 3665A
Cleanup Date: 12/22/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/22/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	94.5	--	1	A
Aroclor 1221	ND		ug/kg	94.5	--	1	A
Aroclor 1232	ND		ug/kg	94.5	--	1	A
Aroclor 1242	ND		ug/kg	94.5	--	1	A
Aroclor 1248	ND		ug/kg	94.5	--	1	A
Aroclor 1254	ND		ug/kg	94.5	--	1	A
Aroclor 1260	ND		ug/kg	94.5	--	1	A
Aroclor 1262	ND		ug/kg	94.5	--	1	A
Aroclor 1268	ND		ug/kg	94.5	--	1	A
PCBs, Total	ND		ug/kg	94.5	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	104		30-150	A
Decachlorobiphenyl	136		30-150	A
2,4,5,6-Tetrachloro-m-xylene	104		30-150	B
Decachlorobiphenyl	101		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-15
Client ID: CF-8
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 12/23/24 09:11
Analyst: MHG
Percent Solids: 93%

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 16:30
Cleanup Method: EPA 3665A
Cleanup Date: 12/22/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/22/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	91.2	--	1	A
Aroclor 1221	ND		ug/kg	91.2	--	1	A
Aroclor 1232	ND		ug/kg	91.2	--	1	A
Aroclor 1242	ND		ug/kg	91.2	--	1	A
Aroclor 1248	ND		ug/kg	91.2	--	1	A
Aroclor 1254	ND		ug/kg	91.2	--	1	A
Aroclor 1260	ND		ug/kg	91.2	--	1	A
Aroclor 1262	ND		ug/kg	91.2	--	1	A
Aroclor 1268	ND		ug/kg	91.2	--	1	A
PCBs, Total	ND		ug/kg	91.2	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	129		30-150	A
2,4,5,6-Tetrachloro-m-xylene	98		30-150	B
Decachlorobiphenyl	96		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 12/23/24 07:31
Analyst: MHG

Extraction Method: EPA 3540C
Extraction Date: 12/21/24 16:30
Cleanup Method: EPA 3665A
Cleanup Date: 12/22/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/22/24

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012251-1						
Aroclor 1016	ND		ug/kg	83.6	--	A
Aroclor 1221	ND		ug/kg	83.6	--	A
Aroclor 1232	ND		ug/kg	83.6	--	A
Aroclor 1242	ND		ug/kg	83.6	--	A
Aroclor 1248	ND		ug/kg	83.6	--	A
Aroclor 1254	ND		ug/kg	83.6	--	A
Aroclor 1260	ND		ug/kg	83.6	--	A
Aroclor 1262	ND		ug/kg	83.6	--	A
Aroclor 1268	ND		ug/kg	83.6	--	A
PCBs, Total	ND		ug/kg	83.6	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	100		30-150	A
Decachlorobiphenyl	111		30-150	A
2,4,5,6-Tetrachloro-m-xylene	99		30-150	B
Decachlorobiphenyl	87		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012251-2 WG2012251-3									
Aroclor 1016	126		123		40-140	2		50	A
Aroclor 1260	134		134		40-140	0		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	106		101		30-150	A
Decachlorobiphenyl	115		115		30-150	A
2,4,5,6-Tetrachloro-m-xylene	103		99		30-150	B
Decachlorobiphenyl	91		92		30-150	B

PESTICIDES

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-01
Client ID: CF-1
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8081B
Analytical Date: 12/24/24 16:52
Analyst: AKM
Percent Solids: 93%

Extraction Method: EPA 3540C
Extraction Date: 12/23/24 16:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/24/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	4.78	--	1	A
Lindane	ND		ug/kg	1.99	--	1	A
Alpha-BHC	ND		ug/kg	1.99	--	1	A
Beta-BHC	ND		ug/kg	4.78	--	1	A
Heptachlor	ND		ug/kg	2.39	--	1	A
Aldrin	ND		ug/kg	4.78	--	1	A
Heptachlor epoxide	ND		ug/kg	8.97	--	1	A
Endrin	ND		ug/kg	1.99	--	1	A
Endrin aldehyde	ND		ug/kg	5.98	--	1	A
Endrin ketone	ND		ug/kg	4.78	--	1	A
Dieldrin	ND		ug/kg	2.99	--	1	A
4,4'-DDE	ND		ug/kg	4.78	--	1	A
4,4'-DDD	ND		ug/kg	4.78	--	1	A
4,4'-DDT	ND		ug/kg	4.78	--	1	A
Endosulfan I	ND		ug/kg	4.78	--	1	A
Endosulfan II	ND		ug/kg	4.78	--	1	A
Endosulfan sulfate	ND		ug/kg	1.99	--	1	A
Methoxychlor	ND		ug/kg	8.97	--	1	A
Toxaphene	ND		ug/kg	89.7	--	1	A
cis-Chlordane	ND		ug/kg	5.98	--	1	A
trans-Chlordane	ND		ug/kg	5.98	--	1	A
Chlordane	ND		ug/kg	39.8	--	1	A

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID:	L2474287-01	Date Collected:	12/17/24 09:00
Client ID:	CF-1	Date Received:	12/17/24
Sample Location:	8000 MAIN STREET, TROY, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	85		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-03
Client ID: CF-2
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8081B
Analytical Date: 12/24/24 17:04
Analyst: AKM
Percent Solids: 93%

Extraction Method: EPA 3540C
Extraction Date: 12/23/24 16:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/24/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	4.44	--	1	A
Lindane	ND		ug/kg	1.85	--	1	A
Alpha-BHC	ND		ug/kg	1.85	--	1	A
Beta-BHC	ND		ug/kg	4.44	--	1	A
Heptachlor	ND		ug/kg	2.22	--	1	A
Aldrin	ND		ug/kg	4.44	--	1	A
Heptachlor epoxide	ND		ug/kg	8.33	--	1	A
Endrin	ND		ug/kg	1.85	--	1	A
Endrin aldehyde	ND		ug/kg	5.56	--	1	A
Endrin ketone	ND		ug/kg	4.44	--	1	A
Dieldrin	ND		ug/kg	2.78	--	1	A
4,4'-DDE	ND		ug/kg	4.44	--	1	A
4,4'-DDD	ND		ug/kg	4.44	--	1	A
4,4'-DDT	ND		ug/kg	4.44	--	1	A
Endosulfan I	ND		ug/kg	4.44	--	1	A
Endosulfan II	ND		ug/kg	4.44	--	1	A
Endosulfan sulfate	ND		ug/kg	1.85	--	1	A
Methoxychlor	ND		ug/kg	8.33	--	1	A
Toxaphene	ND		ug/kg	83.3	--	1	A
cis-Chlordane	ND		ug/kg	5.56	--	1	A
trans-Chlordane	ND		ug/kg	5.56	--	1	A
Chlordane	ND		ug/kg	37.0	--	1	A

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-03 Date Collected: 12/17/24 09:30

Client ID: CF-2 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	90		30-150	B
Decachlorobiphenyl	95		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-05
Client ID: CF-3
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8081B
Analytical Date: 12/24/24 17:16
Analyst: AKM
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/23/24 16:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/24/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	4.51	--	1	A
Lindane	ND		ug/kg	1.88	--	1	A
Alpha-BHC	ND		ug/kg	1.88	--	1	A
Beta-BHC	ND		ug/kg	4.51	--	1	A
Heptachlor	ND		ug/kg	2.25	--	1	A
Aldrin	ND		ug/kg	4.51	--	1	A
Heptachlor epoxide	ND		ug/kg	8.46	--	1	A
Endrin	ND		ug/kg	1.88	--	1	A
Endrin aldehyde	ND		ug/kg	5.64	--	1	A
Endrin ketone	ND		ug/kg	4.51	--	1	A
Dieldrin	ND		ug/kg	2.82	--	1	A
4,4'-DDE	ND		ug/kg	4.51	--	1	A
4,4'-DDD	ND		ug/kg	4.51	--	1	A
4,4'-DDT	ND		ug/kg	4.51	--	1	A
Endosulfan I	ND		ug/kg	4.51	--	1	A
Endosulfan II	ND		ug/kg	4.51	--	1	A
Endosulfan sulfate	ND		ug/kg	1.88	--	1	A
Methoxychlor	ND		ug/kg	8.46	--	1	A
Toxaphene	ND		ug/kg	84.6	--	1	A
cis-Chlordane	ND		ug/kg	5.64	--	1	A
trans-Chlordane	ND		ug/kg	5.64	--	1	A
Chlordane	ND		ug/kg	37.6	--	1	A

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID:	L2474287-05	Date Collected:	12/17/24 10:00
Client ID:	CF-3	Date Received:	12/17/24
Sample Location:	8000 MAIN STREET, TROY, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		30-150	B
Decachlorobiphenyl	91		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-07
Client ID: CF-4
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8081B
Analytical Date: 12/24/24 17:27
Analyst: AKM
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/23/24 16:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/24/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	4.52	--	1	A
Lindane	ND		ug/kg	1.88	--	1	A
Alpha-BHC	ND		ug/kg	1.88	--	1	A
Beta-BHC	ND		ug/kg	4.52	--	1	A
Heptachlor	ND		ug/kg	2.26	--	1	A
Aldrin	ND		ug/kg	4.52	--	1	A
Heptachlor epoxide	ND		ug/kg	8.48	--	1	A
Endrin	ND		ug/kg	1.88	--	1	A
Endrin aldehyde	ND		ug/kg	5.65	--	1	A
Endrin ketone	ND		ug/kg	4.52	--	1	A
Dieldrin	ND		ug/kg	2.83	--	1	A
4,4'-DDE	ND		ug/kg	4.52	--	1	A
4,4'-DDD	ND		ug/kg	4.52	--	1	A
4,4'-DDT	ND		ug/kg	4.52	--	1	A
Endosulfan I	ND		ug/kg	4.52	--	1	A
Endosulfan II	ND		ug/kg	4.52	--	1	A
Endosulfan sulfate	ND		ug/kg	1.88	--	1	A
Methoxychlor	ND		ug/kg	8.48	--	1	A
Toxaphene	ND		ug/kg	84.8	--	1	A
cis-Chlordane	ND		ug/kg	5.65	--	1	A
trans-Chlordane	ND		ug/kg	5.65	--	1	A
Chlordane	ND		ug/kg	37.7	--	1	A

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID:	L2474287-07	Date Collected:	12/17/24 10:30
Client ID:	CF-4	Date Received:	12/17/24
Sample Location:	8000 MAIN STREET, TROY, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	87		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-09
Client ID: CF-5
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8081B
Analytical Date: 12/24/24 17:39
Analyst: AKM
Percent Solids: 90%

Extraction Method: EPA 3540C
Extraction Date: 12/23/24 16:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/24/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	4.74	--	1	A
Lindane	ND		ug/kg	1.98	--	1	A
Alpha-BHC	ND		ug/kg	1.98	--	1	A
Beta-BHC	ND		ug/kg	4.74	--	1	A
Heptachlor	ND		ug/kg	2.37	--	1	A
Aldrin	ND		ug/kg	4.74	--	1	A
Heptachlor epoxide	ND		ug/kg	8.89	--	1	A
Endrin	ND		ug/kg	1.98	--	1	A
Endrin aldehyde	ND		ug/kg	5.93	--	1	A
Endrin ketone	ND		ug/kg	4.74	--	1	A
Dieldrin	ND		ug/kg	2.96	--	1	A
4,4'-DDE	ND		ug/kg	4.74	--	1	A
4,4'-DDD	ND		ug/kg	4.74	--	1	A
4,4'-DDT	ND		ug/kg	4.74	--	1	A
Endosulfan I	ND		ug/kg	4.74	--	1	A
Endosulfan II	ND		ug/kg	4.74	--	1	A
Endosulfan sulfate	ND		ug/kg	1.98	--	1	A
Methoxychlor	ND		ug/kg	8.89	--	1	A
Toxaphene	ND		ug/kg	88.9	--	1	A
cis-Chlordane	ND		ug/kg	5.93	--	1	A
trans-Chlordane	ND		ug/kg	5.93	--	1	A
Chlordane	ND		ug/kg	39.5	--	1	A

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID:	L2474287-09	Date Collected:	12/17/24 11:00
Client ID:	CF-5	Date Received:	12/17/24
Sample Location:	8000 MAIN STREET, TROY, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	91		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-11
Client ID: CF-6
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8081B
Analytical Date: 12/24/24 17:51
Analyst: AKM
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/23/24 16:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/24/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	4.63	--	1	A
Lindane	ND		ug/kg	1.93	--	1	A
Alpha-BHC	ND		ug/kg	1.93	--	1	A
Beta-BHC	ND		ug/kg	4.63	--	1	A
Heptachlor	ND		ug/kg	2.31	--	1	A
Aldrin	ND		ug/kg	4.63	--	1	A
Heptachlor epoxide	ND		ug/kg	8.68	--	1	A
Endrin	ND		ug/kg	1.93	--	1	A
Endrin aldehyde	ND		ug/kg	5.78	--	1	A
Endrin ketone	ND		ug/kg	4.63	--	1	A
Dieldrin	ND		ug/kg	2.89	--	1	A
4,4'-DDE	ND		ug/kg	4.63	--	1	A
4,4'-DDD	ND		ug/kg	4.63	--	1	A
4,4'-DDT	ND		ug/kg	4.63	--	1	A
Endosulfan I	ND		ug/kg	4.63	--	1	A
Endosulfan II	ND		ug/kg	4.63	--	1	A
Endosulfan sulfate	ND		ug/kg	1.93	--	1	A
Methoxychlor	ND		ug/kg	8.68	--	1	A
Toxaphene	ND		ug/kg	86.8	--	1	A
cis-Chlordane	ND		ug/kg	5.78	--	1	A
trans-Chlordane	ND		ug/kg	5.78	--	1	A
Chlordane	ND		ug/kg	38.6	--	1	A

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-11 Date Collected: 12/17/24 11:30

Client ID: CF-6 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	89		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-13
Client ID: CF-7
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8081B
Analytical Date: 12/24/24 18:03
Analyst: AKM
Percent Solids: 94%

Extraction Method: EPA 3540C
Extraction Date: 12/23/24 16:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/24/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	4.99	--	1	A
Lindane	ND		ug/kg	2.08	--	1	A
Alpha-BHC	ND		ug/kg	2.08	--	1	A
Beta-BHC	ND		ug/kg	4.99	--	1	A
Heptachlor	ND		ug/kg	2.49	--	1	A
Aldrin	ND		ug/kg	4.99	--	1	A
Heptachlor epoxide	ND		ug/kg	9.35	--	1	A
Endrin	ND		ug/kg	2.08	--	1	A
Endrin aldehyde	ND		ug/kg	6.24	--	1	A
Endrin ketone	ND		ug/kg	4.99	--	1	A
Dieldrin	ND		ug/kg	3.12	--	1	A
4,4'-DDE	ND		ug/kg	4.99	--	1	A
4,4'-DDD	ND		ug/kg	4.99	--	1	A
4,4'-DDT	ND		ug/kg	4.99	--	1	A
Endosulfan I	ND		ug/kg	4.99	--	1	A
Endosulfan II	ND		ug/kg	4.99	--	1	A
Endosulfan sulfate	ND		ug/kg	2.08	--	1	A
Methoxychlor	ND		ug/kg	9.35	--	1	A
Toxaphene	ND		ug/kg	93.5	--	1	A
cis-Chlordane	ND		ug/kg	6.24	--	1	A
trans-Chlordane	ND		ug/kg	6.24	--	1	A
Chlordane	ND		ug/kg	41.6	--	1	A

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID:	L2474287-13	Date Collected:	12/17/24 12:00
Client ID:	CF-7	Date Received:	12/17/24
Sample Location:	8000 MAIN STREET, TROY, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	81		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-15
Client ID: CF-8
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid
Analytical Method: 1,8081B
Analytical Date: 12/24/24 18:15
Analyst: AKM
Percent Solids: 93%

Extraction Method: EPA 3540C
Extraction Date: 12/23/24 16:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/24/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	4.30	--	1	A
Lindane	ND		ug/kg	1.79	--	1	A
Alpha-BHC	ND		ug/kg	1.79	--	1	A
Beta-BHC	ND		ug/kg	4.30	--	1	A
Heptachlor	ND		ug/kg	2.15	--	1	A
Aldrin	ND		ug/kg	4.30	--	1	A
Heptachlor epoxide	ND		ug/kg	8.07	--	1	A
Endrin	ND		ug/kg	1.79	--	1	A
Endrin aldehyde	ND		ug/kg	5.38	--	1	A
Endrin ketone	ND		ug/kg	4.30	--	1	A
Dieldrin	ND		ug/kg	2.69	--	1	A
4,4'-DDE	ND		ug/kg	4.30	--	1	A
4,4'-DDD	ND		ug/kg	4.30	--	1	A
4,4'-DDT	ND		ug/kg	4.30	--	1	A
Endosulfan I	ND		ug/kg	4.30	--	1	A
Endosulfan II	ND		ug/kg	4.30	--	1	A
Endosulfan sulfate	ND		ug/kg	1.79	--	1	A
Methoxychlor	ND		ug/kg	8.07	--	1	A
Toxaphene	ND		ug/kg	80.7	--	1	A
cis-Chlordane	ND		ug/kg	5.38	--	1	A
trans-Chlordane	ND		ug/kg	5.38	--	1	A
Chlordane	ND		ug/kg	35.9	--	1	A

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID:	L2474287-15	Date Collected:	12/17/24 12:30
Client ID:	CF-8	Date Received:	12/17/24
Sample Location:	8000 MAIN STREET, TROY, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	90		30-150	B

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/24/24 16:05
Analyst: AKM

Extraction Method: EPA 3540C
Extraction Date: 12/23/24 16:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/24/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/24

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012856-1						
Delta-BHC	ND		ug/kg	4.57	--	A
Lindane	ND		ug/kg	1.90	--	A
Alpha-BHC	ND		ug/kg	1.90	--	A
Beta-BHC	ND		ug/kg	4.57	--	A
Heptachlor	ND		ug/kg	2.28	--	A
Aldrin	ND		ug/kg	4.57	--	A
Heptachlor epoxide	ND		ug/kg	8.57	--	A
Endrin	ND		ug/kg	1.90	--	A
Endrin aldehyde	ND		ug/kg	5.71	--	A
Endrin ketone	ND		ug/kg	4.57	--	A
Dieldrin	ND		ug/kg	2.86	--	A
4,4'-DDE	ND		ug/kg	4.57	--	A
4,4'-DDD	ND		ug/kg	4.57	--	A
4,4'-DDT	ND		ug/kg	4.57	--	A
Endosulfan I	ND		ug/kg	4.57	--	A
Endosulfan II	ND		ug/kg	4.57	--	A
Endosulfan sulfate	ND		ug/kg	1.90	--	A
Methoxychlor	ND		ug/kg	8.57	--	A
Toxaphene	ND		ug/kg	85.7	--	A
cis-Chlordane	ND		ug/kg	5.71	--	A
trans-Chlordane	ND		ug/kg	5.71	--	A
Chlordane	ND		ug/kg	38.1	--	A

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/24/24 16:05
Analyst: AKM

Extraction Method: EPA 3540C
Extraction Date: 12/23/24 16:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/24/24
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/24

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012856-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	88		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012856-2 WG2012856-3									
Delta-BHC	79		79		30-150	0		30	A
Lindane	80		79		30-150	1		30	A
Alpha-BHC	81		79		30-150	3		30	A
Beta-BHC	76		74		30-150	3		30	A
Heptachlor	79		77		30-150	3		30	A
Aldrin	81		79		30-150	3		30	A
Heptachlor epoxide	71		70		30-150	1		30	A
Endrin	80		79		30-150	1		30	A
Endrin aldehyde	63		62		30-150	2		30	A
Endrin ketone	82		81		30-150	1		30	A
Dieldrin	77		76		30-150	1		30	A
4,4'-DDE	80		79		30-150	1		30	A
4,4'-DDD	86		85		30-150	1		30	A
4,4'-DDT	77		77		30-150	0		30	A
Endosulfan I	76		76		30-150	0		30	A
Endosulfan II	78		77		30-150	1		30	A
Endosulfan sulfate	77		76		30-150	1		30	A
Methoxychlor	77		76		30-150	1		30	A
cis-Chlordane	73		73		30-150	0		30	A
trans-Chlordane	73		72		30-150	1		30	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2

Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287

Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2012856-2 WG2012856-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		72		30-150	A
Decachlorobiphenyl	57		57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		82		30-150	B
Decachlorobiphenyl	85		82		30-150	B

METALS

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-01 Date Collected: 12/17/24 09:00

Client ID: CF-1 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5340		mg/kg	8.28	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Antimony, Total	ND		mg/kg	4.14	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Arsenic, Total	5.34		mg/kg	0.828	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Barium, Total	25.2		mg/kg	0.828	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Beryllium, Total	ND		mg/kg	0.414	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Cadmium, Total	ND		mg/kg	0.828	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Calcium, Total	44400		mg/kg	8.28	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Chromium, Total	8.37		mg/kg	0.828	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Cobalt, Total	6.55		mg/kg	1.66	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Copper, Total	20.2		mg/kg	0.828	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Iron, Total	14400		mg/kg	4.14	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Lead, Total	6.85		mg/kg	4.14	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Magnesium, Total	11000		mg/kg	8.28	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Manganese, Total	289		mg/kg	0.828	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Mercury, Total	ND		mg/kg	0.080	--	1	12/24/24 14:59	12/26/24 13:05	EPA 7471B	1,7471B	JWN
Nickel, Total	14.6		mg/kg	2.07	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Potassium, Total	377		mg/kg	207	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Selenium, Total	ND		mg/kg	1.66	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Silver, Total	ND		mg/kg	0.414	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Sodium, Total	ND		mg/kg	166	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Thallium, Total	ND		mg/kg	1.66	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Vanadium, Total	11.2		mg/kg	0.828	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC
Zinc, Total	38.3		mg/kg	4.14	--	2	12/24/24 16:35	12/26/24 10:30	EPA 3050B	1,6010D	DMC

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-03 Date Collected: 12/17/24 09:30

Client ID: CF-2 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5500		mg/kg	8.26	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Antimony, Total	ND		mg/kg	4.13	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Arsenic, Total	5.08		mg/kg	0.826	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Barium, Total	28.1		mg/kg	0.826	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Beryllium, Total	ND		mg/kg	0.413	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Cadmium, Total	ND		mg/kg	0.826	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Calcium, Total	39100		mg/kg	8.26	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Chromium, Total	8.24		mg/kg	0.826	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Cobalt, Total	6.87		mg/kg	1.65	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Copper, Total	38.7		mg/kg	0.826	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Iron, Total	15300		mg/kg	4.13	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Lead, Total	6.90		mg/kg	4.13	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Magnesium, Total	12600		mg/kg	8.26	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Manganese, Total	331		mg/kg	0.826	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Mercury, Total	ND		mg/kg	0.087	--	1	12/24/24 14:59	12/26/24 13:15	EPA 7471B	1,7471B	JWN
Nickel, Total	15.3		mg/kg	2.06	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Potassium, Total	363		mg/kg	206	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Selenium, Total	ND		mg/kg	1.65	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Silver, Total	ND		mg/kg	0.413	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Sodium, Total	ND		mg/kg	165	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Thallium, Total	ND		mg/kg	1.65	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Vanadium, Total	10.7		mg/kg	0.826	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC
Zinc, Total	38.4		mg/kg	4.13	--	2	12/24/24 16:35	12/26/24 10:14	EPA 3050B	1,6010D	DMC

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-05 Date Collected: 12/17/24 10:00

Client ID: CF-3 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4150		mg/kg	8.40	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Antimony, Total	ND		mg/kg	4.20	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Arsenic, Total	3.71		mg/kg	0.840	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Barium, Total	19.6		mg/kg	0.840	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Beryllium, Total	ND		mg/kg	0.420	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Cadmium, Total	ND		mg/kg	0.840	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Calcium, Total	29700		mg/kg	8.40	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Chromium, Total	6.34		mg/kg	0.840	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Cobalt, Total	4.94		mg/kg	1.68	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Copper, Total	14.9		mg/kg	0.840	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Iron, Total	11400		mg/kg	4.20	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Lead, Total	5.17		mg/kg	4.20	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Magnesium, Total	8430		mg/kg	8.40	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Manganese, Total	200		mg/kg	0.840	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Mercury, Total	ND		mg/kg	0.080	--	1	12/24/24 14:59	12/26/24 13:18	EPA 7471B	1,7471B	JWN
Nickel, Total	10.8		mg/kg	2.10	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Potassium, Total	287		mg/kg	210	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Selenium, Total	ND		mg/kg	1.68	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Silver, Total	ND		mg/kg	0.420	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Sodium, Total	ND		mg/kg	168	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Thallium, Total	ND		mg/kg	1.68	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Vanadium, Total	8.71		mg/kg	0.840	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC
Zinc, Total	28.0		mg/kg	4.20	--	2	12/24/24 16:35	12/26/24 10:20	EPA 3050B	1,6010D	DMC

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-07 Date Collected: 12/17/24 10:30

Client ID: CF-4 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5750		mg/kg	8.36	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Antimony, Total	ND		mg/kg	4.18	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Arsenic, Total	6.67		mg/kg	0.836	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Barium, Total	21.7		mg/kg	0.836	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Beryllium, Total	ND		mg/kg	0.418	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Cadmium, Total	ND		mg/kg	0.836	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Calcium, Total	34500		mg/kg	8.36	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Chromium, Total	9.01		mg/kg	0.836	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Cobalt, Total	7.36		mg/kg	1.67	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Copper, Total	21.9		mg/kg	0.836	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Iron, Total	15400		mg/kg	4.18	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Lead, Total	7.70		mg/kg	4.18	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Magnesium, Total	9580		mg/kg	8.36	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Manganese, Total	364		mg/kg	0.836	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Mercury, Total	ND		mg/kg	0.080	--	1	12/24/24 14:59	12/26/24 13:21	EPA 7471B	1,7471B	JWN
Nickel, Total	18.1		mg/kg	2.09	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Potassium, Total	360		mg/kg	209	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Selenium, Total	ND		mg/kg	1.67	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Silver, Total	ND		mg/kg	0.418	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Sodium, Total	ND		mg/kg	167	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Thallium, Total	ND		mg/kg	1.67	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Vanadium, Total	10.9		mg/kg	0.836	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC
Zinc, Total	45.1		mg/kg	4.18	--	2	12/24/24 16:35	12/26/24 10:25	EPA 3050B	1,6010D	DMC

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-09 Date Collected: 12/17/24 11:00

Client ID: CF-5 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6080		mg/kg	8.71	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Antimony, Total	ND		mg/kg	4.36	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Arsenic, Total	6.34		mg/kg	0.871	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Barium, Total	25.2		mg/kg	0.871	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Beryllium, Total	ND		mg/kg	0.436	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Cadmium, Total	ND		mg/kg	0.871	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Calcium, Total	46400		mg/kg	8.71	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Chromium, Total	8.69		mg/kg	0.871	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Cobalt, Total	7.33		mg/kg	1.74	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Copper, Total	20.4		mg/kg	0.871	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Iron, Total	16400		mg/kg	4.36	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Lead, Total	7.78		mg/kg	4.36	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Magnesium, Total	14700		mg/kg	8.71	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Manganese, Total	314		mg/kg	0.871	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Mercury, Total	ND		mg/kg	0.081	--	1	12/24/24 14:59	12/26/24 13:25	EPA 7471B	1,7471B	JWN
Nickel, Total	16.0		mg/kg	2.18	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Potassium, Total	408		mg/kg	218	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Selenium, Total	ND		mg/kg	1.74	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Silver, Total	ND		mg/kg	0.436	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Sodium, Total	ND		mg/kg	174	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Thallium, Total	ND		mg/kg	1.74	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Vanadium, Total	11.7		mg/kg	0.871	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC
Zinc, Total	41.4		mg/kg	4.36	--	2	12/24/24 16:35	12/26/24 11:23	EPA 3050B	1,6010D	DMC

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-11 Date Collected: 12/17/24 11:30

Client ID: CF-6 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4620		mg/kg	8.48	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Antimony, Total	ND		mg/kg	4.24	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Arsenic, Total	4.54		mg/kg	0.848	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Barium, Total	21.4		mg/kg	0.848	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Beryllium, Total	ND		mg/kg	0.424	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Cadmium, Total	ND		mg/kg	0.848	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Calcium, Total	42400		mg/kg	8.48	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Chromium, Total	7.07		mg/kg	0.848	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Cobalt, Total	5.74		mg/kg	1.70	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Copper, Total	16.6		mg/kg	0.848	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Iron, Total	12900		mg/kg	4.24	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Lead, Total	5.71		mg/kg	4.24	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Magnesium, Total	10600		mg/kg	8.48	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Manganese, Total	252		mg/kg	0.848	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Mercury, Total	ND		mg/kg	0.083	--	1	12/24/24 14:59	12/26/24 13:28	EPA 7471B	1,7471B	JWN
Nickel, Total	12.7		mg/kg	2.12	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Potassium, Total	351		mg/kg	212	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Selenium, Total	ND		mg/kg	1.70	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Silver, Total	ND		mg/kg	0.424	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Sodium, Total	ND		mg/kg	170	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Thallium, Total	ND		mg/kg	1.70	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Vanadium, Total	10.2		mg/kg	0.848	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC
Zinc, Total	33.8		mg/kg	4.24	--	2	12/24/24 16:35	12/26/24 11:28	EPA 3050B	1,6010D	DMC

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-13 Date Collected: 12/17/24 12:00

Client ID: CF-7 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5280		mg/kg	8.33	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Antimony, Total	ND		mg/kg	4.16	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Arsenic, Total	5.15		mg/kg	0.833	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Barium, Total	22.7		mg/kg	0.833	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Beryllium, Total	ND		mg/kg	0.416	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Cadmium, Total	ND		mg/kg	0.833	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Calcium, Total	66200		mg/kg	8.33	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Chromium, Total	8.23		mg/kg	0.833	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Cobalt, Total	6.48		mg/kg	1.66	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Copper, Total	19.3		mg/kg	0.833	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Iron, Total	13900		mg/kg	4.16	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Lead, Total	6.62		mg/kg	4.16	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Magnesium, Total	11300		mg/kg	8.33	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Manganese, Total	319		mg/kg	0.833	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Mercury, Total	ND		mg/kg	0.078	--	1	12/24/24 14:59	12/26/24 13:38	EPA 7471B	1,7471B	JWN
Nickel, Total	15.4		mg/kg	2.08	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Potassium, Total	324		mg/kg	208	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Selenium, Total	ND		mg/kg	1.66	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Silver, Total	ND		mg/kg	0.416	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Sodium, Total	ND		mg/kg	166	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Thallium, Total	ND		mg/kg	1.66	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Vanadium, Total	11.2		mg/kg	0.833	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC
Zinc, Total	38.4		mg/kg	4.16	--	2	12/24/24 16:35	12/26/24 11:33	EPA 3050B	1,6010D	DMC

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-15 Date Collected: 12/17/24 12:30

Client ID: CF-8 Date Received: 12/17/24

Sample Location: 8000 MAIN STREET, TROY, NY Field Prep: Not Specified

Sample Depth:

Matrix: Solid

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5000		mg/kg	8.44	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Antimony, Total	ND		mg/kg	4.22	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Arsenic, Total	5.38		mg/kg	0.844	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Barium, Total	25.8		mg/kg	0.844	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Beryllium, Total	ND		mg/kg	0.422	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Cadmium, Total	ND		mg/kg	0.844	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Calcium, Total	39000		mg/kg	8.44	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Chromium, Total	7.68		mg/kg	0.844	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Cobalt, Total	6.52		mg/kg	1.69	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Copper, Total	19.1		mg/kg	0.844	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Iron, Total	14300		mg/kg	4.22	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Lead, Total	7.18		mg/kg	4.22	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Magnesium, Total	10100		mg/kg	8.44	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Manganese, Total	283		mg/kg	0.844	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Mercury, Total	ND		mg/kg	0.070	--	1	12/24/24 14:59	12/26/24 13:41	EPA 7471B	1,7471B	JWN
Nickel, Total	14.0		mg/kg	2.11	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Potassium, Total	356		mg/kg	211	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Selenium, Total	ND		mg/kg	1.69	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Silver, Total	ND		mg/kg	0.422	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Sodium, Total	ND		mg/kg	169	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Thallium, Total	ND		mg/kg	1.69	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Vanadium, Total	10.6		mg/kg	0.844	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC
Zinc, Total	39.2		mg/kg	4.22	--	2	12/24/24 16:35	12/26/24 11:39	EPA 3050B	1,6010D	DMC

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01,03,05,07,09,11,13,15 Batch: WG2013247-1										
Aluminum, Total	ND		mg/kg	4.00	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Antimony, Total	ND		mg/kg	2.00	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Arsenic, Total	ND		mg/kg	0.400	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Barium, Total	ND		mg/kg	0.400	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Beryllium, Total	ND		mg/kg	0.200	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Cadmium, Total	ND		mg/kg	0.400	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Calcium, Total	ND		mg/kg	4.00	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Chromium, Total	ND		mg/kg	0.400	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Cobalt, Total	ND		mg/kg	0.800	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Copper, Total	ND		mg/kg	0.400	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Iron, Total	ND		mg/kg	2.00	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Lead, Total	ND		mg/kg	2.00	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Magnesium, Total	ND		mg/kg	4.00	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Manganese, Total	ND		mg/kg	0.400	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Nickel, Total	ND		mg/kg	1.00	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Potassium, Total	ND		mg/kg	100	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Selenium, Total	ND		mg/kg	0.800	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Silver, Total	ND		mg/kg	0.200	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Sodium, Total	ND		mg/kg	80.0	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Thallium, Total	ND		mg/kg	0.800	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Vanadium, Total	ND		mg/kg	0.400	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC
Zinc, Total	ND		mg/kg	2.00	--	1	12/24/24 16:35	12/26/24 10:04	1,6010D	DMC

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01,03,05,07,09,11,13,15 Batch: WG2013249-1										
Mercury, Total	ND		mg/kg	0.083	--	1	12/24/24 14:59	12/26/24 12:58	1,7471B	JWN

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2013247-2								
Aluminum, Total	108		-		80-120	-		
Antimony, Total	109		-		80-120	-		
Arsenic, Total	100		-		80-120	-		
Barium, Total	104		-		80-120	-		
Beryllium, Total	105		-		80-120	-		
Cadmium, Total	100		-		80-120	-		
Calcium, Total	104		-		80-120	-		
Chromium, Total	104		-		80-120	-		
Cobalt, Total	100		-		80-120	-		
Copper, Total	106		-		80-120	-		
Iron, Total	104		-		80-120	-		
Lead, Total	98		-		80-120	-		
Magnesium, Total	101		-		80-120	-		
Manganese, Total	104		-		80-120	-		
Nickel, Total	105		-		80-120	-		
Potassium, Total	107		-		80-120	-		
Selenium, Total	101		-		80-120	-		
Silver, Total	107		-		80-120	-		
Sodium, Total	102		-		80-120	-		
Thallium, Total	103		-		80-120	-		
Vanadium, Total	102		-		80-120	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2013247-2					
Zinc, Total	95	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2013249-2					
Mercury, Total	94	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15 QC Batch ID: WG2013247-3 QC Sample: L2474287-01 Client ID: CF-1												
Aluminum, Total	5340	166	6020	**410**	Q	-	-		75-125	-		20
Antimony, Total	ND	41.5	46.9	113		-	-		75-125	-		20
Arsenic, Total	5.34	9.95	15.7	104		-	-		75-125	-		20
Barium, Total	25.2	166	194	102		-	-		75-125	-		20
Beryllium, Total	ND	4.15	4.47	108		-	-		75-125	-		20
Cadmium, Total	ND	4.4	4.42	100		-	-		75-125	-		20
Calcium, Total	44400	829	35700	**0**	Q	-	-		75-125	-		20
Chromium, Total	8.37	16.6	24.9	100		-	-		75-125	-		20
Cobalt, Total	6.55	41.5	47.0	98		-	-		75-125	-		20
Copper, Total	20.2	20.7	41.1	101		-	-		75-125	-		20
Iron, Total	14400	82.9	15400	**1200**	Q	-	-		75-125	-		20
Lead, Total	6.85	44	48.2	94		-	-		75-125	-		20
Magnesium, Total	11000	829	12000	120		-	-		75-125	-		20
Manganese, Total	289	41.5	345	**135**	Q	-	-		75-125	-		20
Nickel, Total	14.6	41.5	56.8	102		-	-		75-125	-		20
Potassium, Total	377	829	1230	103		-	-		75-125	-		20
Selenium, Total	ND	9.95	10.3	103		-	-		75-125	-		20
Silver, Total	ND	4.15	4.49	108		-	-		75-125	-		20
Sodium, Total	ND	829	935	113		-	-		75-125	-		20
Thallium, Total	ND	9.95	9.56	96		-	-		75-125	-		20
Vanadium, Total	11.2	41.5	52.3	99		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15 QC Batch ID: WG2013247-3 QC Sample: L2474287-01 Client ID: CF-1									
Zinc, Total	38.3	41.5	76.9	93	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15 QC Batch ID: WG2013249-3 QC Sample: L2474287-01 Client ID: CF-1									
Mercury, Total	ND	1.67	1.62	97	-	-	80-120	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2

Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287

Report Date: 12/26/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15 QC Batch ID: WG2013247-4 QC Sample: L2474287-01 Client ID: CF-1						
Aluminum, Total	5340	5190	mg/kg	3		20
Antimony, Total	ND	ND	mg/kg	NC		20
Arsenic, Total	5.34	5.37	mg/kg	1		20
Barium, Total	25.2	26.2	mg/kg	4		20
Beryllium, Total	ND	ND	mg/kg	NC		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Calcium, Total	44400	37800	mg/kg	16		20
Chromium, Total	8.37	8.09	mg/kg	3		20
Cobalt, Total	6.55	6.34	mg/kg	3		20
Copper, Total	20.2	19.4	mg/kg	4		20
Iron, Total	14400	14300	mg/kg	1		20
Lead, Total	6.85	6.86	mg/kg	0		20
Magnesium, Total	11000	9370	mg/kg	16		20
Manganese, Total	289	284	mg/kg	2		20
Nickel, Total	14.6	14.2	mg/kg	3		20
Potassium, Total	377	343	mg/kg	9		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Sodium, Total	ND	ND	mg/kg	NC		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2

Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287

Report Date: 12/26/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15 QC Batch ID: WG2013247-4 QC Sample: L2474287-01 Client ID: CF-1					
Thallium, Total	ND	ND	mg/kg	NC	20
Vanadium, Total	11.2	10.5	mg/kg	6	20
Zinc, Total	38.3	37.1	mg/kg	3	20
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15 QC Batch ID: WG2013249-4 QC Sample: L2474287-01 Client ID: CF-1					
Mercury, Total	ND	ND	mg/kg	NC	20

INORGANICS
&
MISCELLANEOUS

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-01
Client ID: CF-1
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.1		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI
Cyanide, Total	ND		mg/kg	1.0	--	1	12/20/24 21:15	12/23/24 12:26	1,9010C/9012B	JER
Chromium, Hexavalent	ND		mg/kg	0.859	--	1	12/19/24 11:53	12/20/24 10:51	1,7196A	RDS

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-02
Client ID: CF-1A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:15
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.6		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-03
Client ID: CF-2
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.1		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI
Cyanide, Total	ND		mg/kg	1.0	--	1	12/20/24 21:15	12/23/24 12:27	1,9010C/9012B	JER
Chromium, Hexavalent	ND		mg/kg	0.859	--	1	12/19/24 11:53	12/20/24 10:51	1,7196A	RDS

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-04
Client ID: CF-2A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 09:45
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.3		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-05
Client ID: CF-3
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.7		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI
Cyanide, Total	ND		mg/kg	1.0	--	1	12/20/24 21:15	12/23/24 12:28	1,9010C/9012B	JER
Chromium, Hexavalent	ND		mg/kg	0.854	--	1	12/19/24 11:53	12/20/24 10:51	1,7196A	RDS

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-06
Client ID: CF-3A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:15
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.6		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-07
Client ID: CF-4
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.9		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI
Cyanide, Total	ND		mg/kg	0.98	--	1	12/20/24 21:15	12/23/24 12:29	1,9010C/9012B	JER
Chromium, Hexavalent	ND		mg/kg	0.852	--	1	12/19/24 11:53	12/20/24 10:51	1,7196A	RDS

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-08
Client ID: CF-4A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 10:45
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.9		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-09
Client ID: CF-5
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.9		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI
Cyanide, Total	ND		mg/kg	1.1	--	1	12/20/24 21:15	12/23/24 12:30	1,9010C/9012B	JER
Chromium, Hexavalent	ND		mg/kg	0.890	--	1	12/19/24 11:53	12/20/24 10:51	1,7196A	RDS

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-10
Client ID: CF-5A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:15
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.5		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-11
Client ID: CF-6
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.8		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI
Cyanide, Total	ND		mg/kg	1.0	--	1	12/20/24 21:15	12/23/24 12:33	1,9010C/9012B	JER
Chromium, Hexavalent	ND		mg/kg	0.853	--	1	12/19/24 11:53	12/20/24 10:51	1,7196A	RDS

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-12
Client ID: CF-6A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 11:45
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.0		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-13
Client ID: CF-7
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:00
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.6		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI
Cyanide, Total	ND		mg/kg	0.98	--	1	12/20/24 23:10	12/23/24 14:48	1,9010C/9012B	JER
Chromium, Hexavalent	ND		mg/kg	0.855	--	1	12/19/24 11:53	12/20/24 10:51	1,7196A	RDS

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-14
Client ID: CF-7A
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:15
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.8		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

SAMPLE RESULTS

Lab ID: L2474287-15
Client ID: CF-8
Sample Location: 8000 MAIN STREET, TROY, NY

Date Collected: 12/17/24 12:30
Date Received: 12/17/24
Field Prep: Not Specified

Sample Depth:
Matrix: Solid

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.4		%	0.100	NA	1	-	12/18/24 12:07	121,2540G	ROI
Cyanide, Total	ND		mg/kg	0.99	--	1	12/20/24 23:10	12/23/24 14:49	1,9010C/9012B	JER
Chromium, Hexavalent	ND		mg/kg	0.856	--	1	12/19/24 11:53	12/20/24 10:51	1,7196A	RDS

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01,03,05,07,09,11,13,15 Batch: WG2011286-1										
Chromium, Hexavalent	ND		mg/kg	0.800	--	1	12/19/24 11:53	12/20/24 10:51	1,7196A	RDS
General Chemistry - Westborough Lab for sample(s): 01,03,05,07,09,11 Batch: WG2012022-1										
Cyanide, Total	ND		mg/kg	0.94	--	1	12/20/24 21:15	12/23/24 11:59	1,9010C/9012B	JER
General Chemistry - Westborough Lab for sample(s): 13,15 Batch: WG2012036-1										
Cyanide, Total	ND		mg/kg	0.88	--	1	12/20/24 23:10	12/23/24 14:23	1,9010C/9012B	JER

Lab Control Sample Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03,05,07,09,11,13,15 Batch: WG2011286-2								
Chromium, Hexavalent	103		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01,03,05,07,09,11 Batch: WG2012022-2 WG2012022-3								
Cyanide, Total	81		94		80-120	10		35
General Chemistry - Westborough Lab Associated sample(s): 13,15 Batch: WG2012036-2 WG2012036-3								
Cyanide, Total	96		86		80-120	11		35

Matrix Spike Analysis
Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA
Lab Number: L2474287
Report Date: 12/26/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03,05,07,09,11,13,15 QC Batch ID: WG2011286-4 QC Sample: L2474287-01 Client ID: CF-1												
Chromium, Hexavalent	ND	1450	1370	95		-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 01,03,05,07,09,11 QC Batch ID: WG2012022-4 WG2012022-5 QC Sample: L2474164-03 Client ID: MS Sample												
Cyanide, Total	ND	12	12	96		9.5	80		75-125	23		35
General Chemistry - Westborough Lab Associated sample(s): 01,03,05,07,09,11 QC Batch ID: WG2012022-6 WG2012022-7 QC Sample: L2474164-02 Client ID: MS Sample												
Cyanide, Total	ND	12	12	99		ND	**0**	Q	75-125	NC		35
General Chemistry - Westborough Lab Associated sample(s): 13,15 QC Batch ID: WG2012036-4 WG2012036-5 QC Sample: L2474110-01 Client ID: MS Sample												
Cyanide, Total	ND	11	10	91		11	98		75-125	7		35
General Chemistry - Westborough Lab Associated sample(s): 13,15 QC Batch ID: WG2012036-6 WG2012036-7 QC Sample: L2474110-02 Client ID: MS Sample												
Cyanide, Total	ND	10	9.8	93		11	100		75-125	7		35

Lab Duplicate Analysis

Batch Quality Control

Project Name: TROY (WATER ST.) PHASE 2-AREA2

Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287

Report Date: 12/26/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-15 QC Batch ID: WG2010615-1 QC Sample: L2474287-01 Client ID: CF-1						
Solids, Total	93.1	93.5	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01,03,05,07,09,11,13,15 QC Batch ID: WG2011286-6 QC Sample: L2474287-01 Client ID: CF-1						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent
D	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2474287-01A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-01B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-01C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-01D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-01E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),TL-TI(180),CU-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),SB-TI(180),V-TI(180),CO-TI(180),HG-T(28),FE-TI(180),MG-TI(180),MN-TI(180),NA-TI(180),CD-TI(180),K-TI(180),CA-TI(180)
L2474287-01F	Glass 120ml/4oz unpreserved	B	NA		2.2	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-01G	Glass 250ml/8oz unpreserved	B	NA		2.2	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-02A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-02B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-02C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-02D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-03A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-03B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-03C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2474287-03D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-03E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),CR-TI(180),PB-TI(180),ZN-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MG-TI(180),HG-T(28),MN-TI(180),CA-TI(180),CD-TI(180),NA-TI(180),K-TI(180)
L2474287-03F	Glass 120ml/4oz unpreserved	B	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-03G	Glass 250ml/8oz unpreserved	B	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-04A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-04B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-04C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-04D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-05A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-05B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-05C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-05D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-05E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.2	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),AL-TI(180),CR-TI(180),TL-TI(180),PB-TI(180),CU-TI(180),ZN-TI(180),SB-TI(180),SE-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MG-TI(180),MN-TI(180),HG-T(28),NA-TI(180),K-TI(180),CA-TI(180),CD-TI(180)
L2474287-05F	Glass 120ml/4oz unpreserved	B	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-05G	Glass 250ml/8oz unpreserved	B	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-06A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-06B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)

*Values in parentheses indicate holding time in days

Project Name: TROY (WATER ST.) PHASE 2-AREA2
Project Number: TROY (WATER ST.) PHA

Lab Number: L2474287
Report Date: 12/26/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2474287-06C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-06D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-07A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-07B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-07C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-07D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-07E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),TL-TI(180),NI-TI(180),AL-TI(180),CR-TI(180),PB-TI(180),CU-TI(180),ZN-TI(180),SB-TI(180),SE-TI(180),CO-TI(180),V-TI(180),MG-TI(180),MN-TI(180),FE-TI(180),HG-T(28),K-TI(180),NA-TI(180),CA-TI(180),CD-TI(180)
L2474287-07F	Glass 120ml/4oz unpreserved	B	NA		2.2	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-07G	Glass 250ml/8oz unpreserved	B	NA		2.2	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-08A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-08B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-08C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-08D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-09A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-09B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-09C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-09D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-09E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),SB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MG-TI(180),MN-TI(180),HG-T(28),CD-TI(180),K-TI(180),NA-TI(180),CA-TI(180)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2474287-09F	Glass 120ml/4oz unpreserved	B	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-09G	Glass 250ml/8oz unpreserved	B	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-10A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-10B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-10C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-10D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-11A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-11B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-11C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-11D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-11E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.2	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),ZN-TI(180),SE-TI(180),CU-TI(180),SB-TI(180),PB-TI(180),CO-TI(180),V-TI(180),MG-TI(180),MN-TI(180),HG-T(28),FE-TI(180),CD-TI(180),K-TI(180),NA-TI(180),CA-TI(180)
L2474287-11F	Glass 120ml/4oz unpreserved	B	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-11G	Glass 250ml/8oz unpreserved	B	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-12A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-12B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-12C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-12D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-13A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-13B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-13C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2474287-13D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-13E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.2	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),SE-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MN-TI(180),MG-TI(180),CD-TI(180),K-TI(180),CA-TI(180),NA-TI(180)
L2474287-13F	Glass 120ml/4oz unpreserved	B	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-13G	Glass 250ml/8oz unpreserved	B	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-14A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-14B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-14C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-14D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-15A	Vial MeOH preserved	C	NA		3.0	Y	Absent		NYTCL-8260HLW-R2(14)
L2474287-15B	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-15C	Vial water preserved	C	NA		3.0	Y	Absent	18-DEC-24 04:32	NYTCL-8260HLW-R2(14)
L2474287-15D	Plastic 120ml unpreserved	C	NA		3.0	Y	Absent		TS(7)
L2474287-15E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.2	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),SB-TI(180),ZN-TI(180),CU-TI(180),SE-TI(180),PB-TI(180),V-TI(180),CO-TI(180),MG-TI(180),FE-TI(180),MN-TI(180),HG-T(28),NA-TI(180),CA-TI(180),CD-TI(180),K-TI(180)
L2474287-15F	Glass 120ml/4oz unpreserved	B	NA		2.2	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)
L2474287-15G	Glass 250ml/8oz unpreserved	B	NA		2.2	Y	Absent		TCN-9010(14),NYTCL-8270(14),NYTCL-8082-3540C(365),NYTCL-8081(14),HEXCR-7196(30)

*Values in parentheses indicate holding time in days

Project Name:	TROY (WATER ST.) PHASE 2-AREA2	**Lab Number:**	L2474287
Project Number:	TROY (WATER ST.) PHA	**Report Date:**	12/26/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Project Name:	TROY (WATER ST.) PHASE 2-AREA2	**Lab Number:**	L2474287
Project Number:	TROY (WATER ST.) PHA	**Report Date:**	12/26/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report

Project Name:	TROY (WATER ST.) PHASE 2-AREA2	**Lab Number:**	L2474287
Project Number:	TROY (WATER ST.) PHA	**Report Date:**	12/26/24

Data Qualifiers

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: TROY (WATER ST.) PHASE 2-AREA2 **Lab Number:** L2474287

Project Number: TROY (WATER ST.) PHA **Report Date:** 12/26/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Project Manager.

ALPHA

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL 508-898-9220
FAX 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL 508-822-9300
FAX 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of

Date Rec'd in Lab: 12/18/24

ALPHA Job #: L2474287

Client Information

Client: LAND Remediation
Address: 74 Hudson River Road,
Waterford, NY 12188
Phone: 203.233.4100
Fax:
Email: jlb@land-remediation.com

Project Information

Project Name: Troy (Water St.) Phase 2-Area 2 Remediation
Project Location: 8000 Main Street Troy, NY
Project #
(Use Project name as Project #) ☑
Project Manager: Jonathan Borrelli
ALPHAQuote #:

Turn-Around Time

Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days: 5 Day

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☑ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Cyanide 9010C	Chromium (+6) 7199	TCL Pesticides 8081	TCL PCBs 8082/HG 7471B	NYTCL SVOCs 8270D	TCL VOCs 5035A 8260 B	TAL Metals		Sample Specific Comments	Total # of Bottles
74287 - 01	CF-1	12.17.2024	9:00	Sand	JB	X	X	X	X	X	X	X			
- 02	CF-1A	12.17.2024	9:15	Sand	JB						X				
- 03	CF-2	12.17.2024	9:30	Sand	JB	X	X	X	X	X	X	X			
- 04	CF-2A	12.17.2024	9:45	Sand	JB						X				
- 05	CF-3	12.17.2024	10:00	Sand	JB	X	X	X	X	X	X	X			
- 06	CF-3A	12.17.2024	10:15	Sand	JB						X				
- 07	CF-4	12.17.2024	10:30	Sand	JB	X	X	X	X	X	X	X			
- 08	CF-4A	12.17.2024	10:45	Sand	JB						X				
- 09	CF-5	12.17.2024	11:00	Sand	JB	X	X	X	X	X	X	X			
- 10	CF-5A	12.17.2024	11:15	Sand	JB						X				
					Container Type	G	G	G	G	G	V	G			
					Preservative										

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Jon Borrelli	12.17.24 /	[illegible]	12/17 16:00
[illegible]	12/17 16:50	[illegible]	12/17/24 22:45
[illegible]	12/18/24 0115	[illegible]	12/18/24 0115

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

ALPHA

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
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Page 1 of

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Fax:
Email: jlb@land-remediation.com

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Project Name: Troy (Water St.) Phase 2-Area 2 Remediation
Project Location: 8000 Main Street Troy, NY
Project #
(Use Project name as Project #) ☑
Project Manager: Jonathan Borrelli
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days: 5 Day

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☑ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Cyanide 9010C	Chromium (+6) 7199	TCL Pesticides 8081	TCL PCBs 8082/HG 7471B	NYTCL SVOCs 8270D	TCL VOCs 5035A 8260 B	TAL Metals		Sample Specific Comments	Total Bottles
74287 - 11	CF-6	12.17.2024	11:30	Sand	JB	X	X	X	X	X	X	X			
- 12	CF-6A	12.17.2024	11:45	Sand	JB						X				
- 13	CF-7	12.17.2024	12:00	Sand	JB	X	X	X	X	X	X	X			
- 14	CF-7A	12.17.2024	12:15	Sand	JB						X				
- 15	CF-8	12.17.2024	12:30	Sand	JB	X	X	X	X	X	X	X			
					Container Type	G	G	G	G	G	V	G			
					Preservative										

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Jon Borrelli	12.17.24 /	[illegible] Pace	12/17 16:00
[illegible] Pace	12/17 / 16:30	[illegible]	12/18/24 0115

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. James L Marolda
Brown and Caldwell
500 North Franklin Turnpike
Suite 306
Ramsey, New Jersey 07446

Generated 1/2/2025 10:49:00 PM

JOB DESCRIPTION

Troy NY Water PFAS

JOB NUMBER

410-201151-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

my EOL

Eurofins Lancaster Laboratories Environment Testing, LLC

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Barb Weyandt

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1/2/2025 10:49:00 PM

Authorized for release by
Barbara Weyandt, Project Manager
Barbara.Weyandt@et.eurofinsus.com
(717)556-7264

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Barb Weyandt

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job Narrative
410-201151-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 12/18/2024 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C.

Receipt Exceptions
For the following sample, the lab only received 2 125mL unpreserved plastic containers. We did not receive any 250mL amber glass unpreserved containers with the time of 09:40. Method cancelled.

FB-20241217 (410-201151-10)

For the following sample, the lab only received 2 250mL amber glass unpreserved containers. The lab did not receive a 125mL unpreserved plastic container with a time of 10:20. 1633 canceled.
FB-20241217 (410-201151-16)

All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

Import-CF1-20241217 (410-201151-1), Import-CF2-20241217 (410-201151-2), Import-CF3-20241217 (410-201151-3), Import-CF4-20241217 (410-201151-4), Import-CF4-20241217 (410-201151-4[MS]), Import-CF4-20241217 (410-201151-4[MSD]), Import-CF5-20241217 (410-201151-5), Import-CF6-20241217 (410-201151-6), Import-CF7-20241217 (410-201151-7), Import-CF8-20241217 (410-201151-8), DUP-20241217 (410-201151-9), FB-20241217 (410-201151-10), Import-GF1-20241217 (410-201151-11), Import-GF2-20241217 (410-201151-12), Import-GF3-20241217 (410-201151-13), Import-GF4-20241217 (410-201151-14), DUP-20241217 (410-201151-15) and FB-20241217 (410-201151-16)

The Chain-of-Custody (COC) was incomplete as received. The COC is missing the sample preservation. This does not meet regulatory requirements.

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

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

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

Detection Summary

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF1-20241217 — Lab Sample ID: 410-201151-1

No Detections.

Client Sample ID: Import-CF2-20241217 — Lab Sample ID: 410-201151-2

No Detections.

Client Sample ID: Import-CF3-20241217 — Lab Sample ID: 410-201151-3

No Detections.

Client Sample ID: Import-CF4-20241217 — Lab Sample ID: 410-201151-4

No Detections.

Client Sample ID: Import-CF5-20241217 — Lab Sample ID: 410-201151-5

No Detections.

Client Sample ID: Import-CF6-20241217 — Lab Sample ID: 410-201151-6

No Detections.

Client Sample ID: Import-CF7-20241217 — Lab Sample ID: 410-201151-7

No Detections.

Client Sample ID: Import-CF8-20241217 — Lab Sample ID: 410-201151-8

No Detections.

Client Sample ID: DUP-20241217 — Lab Sample ID: 410-201151-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	5.7		3.2	1.4	ug/Kg	1	☼	8270E SIM	Total/NA

Client Sample ID: FB-20241217 — Lab Sample ID: 410-201151-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.82	J	2.0	0.49	ng/L	1		Draft-4 1633	Total/NA

Client Sample ID: Import-GF1-20241217 — Lab Sample ID: 410-201151-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.7	J	3.3	1.5	ug/Kg	1	☼	8270E SIM	Total/NA

Client Sample ID: Import-GF2-20241217 — Lab Sample ID: 410-201151-12

No Detections.

Client Sample ID: Import-GF3-20241217 — Lab Sample ID: 410-201151-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	13		3.2	1.4	ug/Kg	1	☼	8270E SIM	Total/NA

Client Sample ID: Import-GF4-20241217 — Lab Sample ID: 410-201151-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	7.6		3.2	1.4	ug/Kg	1	☼	8270E SIM	Total/NA

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

Detection Summary

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: DUP-20241217 — Lab Sample ID: 410-201151-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	6.9		3.2	1.4	ug/Kg	1	☼	8270E SIM	Total/NA

Client Sample ID: FB-20241217 — Lab Sample ID: 410-201151-16

No Detections.

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF1-20241217

Date Collected: 12/17/24 09:00
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-1

Matrix: Solid
Percent Solids: 94.3

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		3.2	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 01:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*94*		*10 - 122*	*12/31/24 18:13*	*01/02/25 01:29*	*1*
Fluoranthene-d10 (Surr)	*84*		*15 - 126*	*12/31/24 18:13*	*01/02/25 01:29*	*1*
1-Methylnaphthalene-d10 (Surr)	*60*		*22 - 120*	*12/31/24 18:13*	*01/02/25 01:29*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluoropentanoic acid (PFPeA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorohexanoic acid (PFHxA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluoroheptanoic acid (PFHpA)	ND		0.19	0.067	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorooctanoic acid (PFOA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorononanoic acid (PFNA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorododecanoic acid (PFDoA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.19	0.067	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.19	0.067	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.19	0.067	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.19	0.067	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorononanesulfonic acid (PFNS)	ND		0.19	0.067	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.39	0.096	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.19	0.096	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.19	0.077	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.96	0.29	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.96	0.29	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1

Client Sample ID: Import-CF1-20241217

Lab Sample ID: 410-201151-1

Date Collected: 12/17/24 09:00
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 94.3

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.19	0.067	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.19	0.067	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.19	0.077	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.39	0.19	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.96	0.48	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.96	0.39	ng/g	☼	12/21/24 09:13	12/23/24 23:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86.2*		*8 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C5 PFPeA	*71.2*		*35 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C5 PFHxA	*69.8*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C4 PFHpA	*67.2*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C2 PFDoA	*75.4*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C8 PFOA	*65.8*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C9 PFNA	*63.2*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C6 PFDA	*64.1*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C7 PFUnA	*78.1*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C2 PFTeDA	*52.3*		*20 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C3 PFBS	*71.4*		*40 - 135*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C3 PFHxS	*73.9*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C8 PFOS	*68.0*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
M2-4:2 FTS	*85.5*		*40 - 165*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
M2-6:2 FTS	*78.2*		*40 - 215*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
M2-8:2 FTS	*62.2*		*40 - 275*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C8 FOSA	*50.7*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
d3-NMePFOSA	*39.8*		*10 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
d5-NEtPFOSA	*40.9*		*10 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
d3-NMeFOSAA	*54.1*		*40 - 135*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
d5-NEtFOSAA	*55.1*		*40 - 150*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
d7-N-MeFOSE-M	*34.1*		*20 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
d9-N-EtFOSE-M	*33.0*		*15 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*
13C3 HFPO-DA	*65.0*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:22*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**5.7**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**94.3**		1.0	1.0	%			12/19/24 14:58	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF2-20241217

Lab Sample ID: 410-201151-2

Date Collected: 12/17/24 09:05
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 95.2

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		3.1	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 01:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*94*		*10 - 122*	*12/31/24 18:13*	*01/02/25 01:53*	*1*
Fluoranthene-d10 (Surr)	*79*		*15 - 126*	*12/31/24 18:13*	*01/02/25 01:53*	*1*
1-Methylnaphthalene-d10 (Surr)	*80*		*22 - 120*	*12/31/24 18:13*	*01/02/25 01:53*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.40	0.10	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.090	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.090	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.10	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.080	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1.0	0.30	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1.0	0.30	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF2-20241217
Date Collected: 12/17/24 09:05
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-2
Matrix: Solid
Percent Solids: 95.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.20	0.090	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.20	0.080	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.40	0.20	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1.0	0.50	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1.0	0.40	ng/g	☼	12/21/24 09:13	12/23/24 23:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.2*		*8 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C5 PFPeA	*79.5*		*35 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C5 PFHxA	*86.1*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C4 PFHpA	*82.3*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C2 PFDoA	*79.0*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C8 PFOA	*87.2*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C9 PFNA	*80.2*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C6 PFDA	*79.2*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C7 PFUnA	*88.1*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C2 PFTeDA	*53.5*		*20 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C3 PFBS	*84.8*		*40 - 135*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C3 PFHxS	*86.2*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C8 PFOS	*70.2*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
M2-4:2 FTS	*103*		*40 - 165*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
M2-6:2 FTS	*99.9*		*40 - 215*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
M2-8:2 FTS	*82.5*		*40 - 275*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C8 FOSA	*67.6*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
d3-NMePFOSA	*51.1*		*10 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
d5-NEtPFOSA	*45.8*		*10 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
d3-NMeFOSAA	*67.8*		*40 - 135*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
d5-NEtFOSAA	*65.4*		*40 - 150*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
d7-N-MeFOSE-M	*38.0*		*20 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
d9-N-EtFOSE-M	*33.7*		*15 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*
13C3 HFPO-DA	*76.9*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:36*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**4.8**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**95.2**		1.0	1.0	%			12/19/24 14:58	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF3-20241217

Date Collected: 12/17/24 09:10
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-3

Matrix: Solid
Percent Solids: 91.2

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		3.3	1.5	ug/Kg	☼	12/31/24 18:13	01/02/25 02:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*90*		*10 - 122*	*12/31/24 18:13*	*01/02/25 02:16*	*1*
Fluoranthene-d10 (Surr)	*77*		*15 - 126*	*12/31/24 18:13*	*01/02/25 02:16*	*1*
1-Methylnaphthalene-d10 (Surr)	*66*		*22 - 120*	*12/31/24 18:13*	*01/02/25 02:16*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.39	0.098	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.098	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.98	0.30	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.98	0.30	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF3-20241217
Date Collected: 12/17/24 09:10
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-3
Matrix: Solid
Percent Solids: 91.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.39	0.20	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.98	0.49	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.98	0.39	ng/g	☼	12/21/24 09:13	12/23/24 23:49	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.1*		*8 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C5 PFPeA	*73.9*		*35 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C5 PFHxA	*85.1*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C4 PFHpA	*83.8*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C2 PFDoA	*75.4*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C8 PFOA	*88.5*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C9 PFNA	*81.2*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C6 PFDA	*75.0*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C7 PFUnA	*82.0*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C2 PFTeDA	*47.6*		*20 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C3 PFBS	*87.5*		*40 - 135*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C3 PFHxS	*89.3*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C8 PFOS	*75.7*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
M2-4:2 FTS	*101*		*40 - 165*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
M2-6:2 FTS	*103*		*40 - 215*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
M2-8:2 FTS	*81.2*		*40 - 275*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C8 FOSA	*64.5*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
d3-NMePFOSA	*49.3*		*10 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
d5-NEtPFOSA	*45.4*		*10 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
d3-NMeFOSAA	*67.4*		*40 - 135*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
d5-NEtFOSAA	*63.5*		*40 - 150*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
d7-N-MeFOSE-M	*37.3*		*20 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
d9-N-EtFOSE-M	*35.5*		*15 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*
13C3 HFPO-DA	*75.4*		*40 - 130*	*12/21/24 09:13*	*12/23/24 23:49*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**8.8**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**91.2**		1.0	1.0	%			12/19/24 14:58	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF4-20241217

Date Collected: 12/17/24 09:15
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-4

Matrix: Solid
Percent Solids: 80.8

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND	F2	3.7	1.6	ug/Kg	☼	12/31/24 18:13	01/02/25 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*85*		*10 - 122*	*12/31/24 18:13*	*01/02/25 00:20*	*1*
Fluoranthene-d10 (Surr)	*71*		*15 - 126*	*12/31/24 18:13*	*01/02/25 00:20*	*1*
1-Methylnaphthalene-d10 (Surr)	*69*		*22 - 120*	*12/31/24 18:13*	*01/02/25 00:20*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluoropentanoic acid (PFPeA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorohexanoic acid (PFHxA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluoroheptanoic acid (PFHpA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorooctanoic acid (PFOA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorononanoic acid (PFNA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorododecanoic acid (PFDoA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorononanesulfonic acid (PFNS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.39	0.097	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.19	0.097	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.19	0.077	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.97	0.29	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.97	0.29	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF4-20241217

Date Collected: 12/17/24 09:15
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-4

Matrix: Solid
Percent Solids: 80.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.19	0.077	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.39	0.19	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.97	0.48	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.97	0.39	ng/g	☼	12/21/24 09:13	12/24/24 00:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.6*		*8 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C5 PFPeA	*78.2*		*35 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C5 PFHxA	*86.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C4 PFHpA	*84.6*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C2 PFDoA	*79.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C8 PFOA	*85.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C9 PFNA	*81.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C6 PFDA	*80.6*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C7 PFUnA	*92.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C2 PFTeDA	*53.6*		*20 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C3 PFBS	*86.2*		*40 - 135*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C3 PFHxS	*91.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C8 PFOS	*82.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
M2-4:2 FTS	*102*		*40 - 165*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
M2-6:2 FTS	*101*		*40 - 215*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
M2-8:2 FTS	*81.9*		*40 - 275*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C8 FOSA	*67.2*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
d3-NMePFOSA	*49.7*		*10 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
d5-NEtPFOSA	*47.9*		*10 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
d3-NMeFOSAA	*63.4*		*40 - 135*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
d5-NEtFOSAA	*59.4*		*40 - 150*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
d7-N-MeFOSE-M	*36.9*		*20 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
d9-N-EtFOSE-M	*36.2*		*15 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*
13C3 HFPO-DA	*77.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:03*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**19.2**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**80.8**		1.0	1.0	%			12/19/24 14:58	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF5-20241217

Date Collected: 12/17/24 09:20
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-5

Matrix: Solid
Percent Solids: 92.7

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		3.2	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*92*		*10 - 122*	*12/31/24 18:13*	*01/02/25 02:39*	*1*
Fluoranthene-d10 (Surr)	*84*		*15 - 126*	*12/31/24 18:13*	*01/02/25 02:39*	*1*
1-Methylnaphthalene-d10 (Surr)	*70*		*22 - 120*	*12/31/24 18:13*	*01/02/25 02:39*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluoropentanoic acid (PFPeA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorohexanoic acid (PFHxA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluoroheptanoic acid (PFHpA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorooctanoic acid (PFOA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorononanoic acid (PFNA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorododecanoic acid (PFDoA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorononanesulfonic acid (PFNS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.39	0.097	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.19	0.097	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.19	0.078	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.97	0.29	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.97	0.29	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF5-20241217

Lab Sample ID: 410-201151-5

Date Collected: 12/17/24 09:20
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 92.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.19	0.078	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.39	0.19	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.97	0.49	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.97	0.39	ng/g	☼	12/21/24 09:13	12/24/24 00:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*109*		*8 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C5 PFPeA	*95.1*		*35 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C5 PFHxA	*102*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C4 PFHpA	*98.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C2 PFDoA	*89.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C8 PFOA	*103*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C9 PFNA	*95.6*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C6 PFDA	*89.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C7 PFUnA	*104*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C2 PFTeDA	*61.2*		*20 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C3 PFBS	*95.8*		*40 - 135*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C3 PFHxS	*99.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C8 PFOS	*86.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
M2-4:2 FTS	*115*		*40 - 165*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
M2-6:2 FTS	*119*		*40 - 215*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
M2-8:2 FTS	*93.8*		*40 - 275*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C8 FOSA	*79.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
d3-NMePFOSA	*64.3*		*10 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
d5-NEtPFOSA	*59.5*		*10 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
d3-NMeFOSAA	*73.6*		*40 - 135*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
d5-NEtFOSAA	*72.5*		*40 - 150*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
d7-N-MeFOSE-M	*53.7*		*20 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
d9-N-EtFOSE-M	*47.3*		*15 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*
13C3 HFPO-DA	*88.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:44*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**7.3**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**92.7**		1.0	1.0	%			12/19/24 14:58	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF6-20241217

Date Collected: 12/17/24 09:25
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-6

Matrix: Solid
Percent Solids: 95.2

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		3.1	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*82*		*10 - 122*	*12/31/24 18:13*	*01/02/25 17:43*	*1*
Fluoranthene-d10 (Surr)	*72*		*15 - 126*	*12/31/24 18:13*	*01/02/25 17:43*	*1*
1-Methylnaphthalene-d10 (Surr)	*68*		*22 - 120*	*12/31/24 18:13*	*01/02/25 17:43*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.39	0.099	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.099	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.99	0.30	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.99	0.30	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF6-20241217

Lab Sample ID: 410-201151-6

Date Collected: 12/17/24 09:25
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 95.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.39	0.20	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.99	0.49	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.99	0.39	ng/g	☼	12/21/24 09:13	12/24/24 00:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91.3*		*8 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C5 PFPeA	*75.8*		*35 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C5 PFHxA	*85.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C4 PFHpA	*86.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C2 PFDoA	*68.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C8 PFOA	*83.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C9 PFNA	*80.6*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C6 PFDA	*75.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C7 PFUnA	*83.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C2 PFTeDA	*39.5*		*20 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C3 PFBS	*82.8*		*40 - 135*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C3 PFHxS	*83.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C8 PFOS	*72.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
M2-4:2 FTS	*101*		*40 - 165*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
M2-6:2 FTS	*96.4*		*40 - 215*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
M2-8:2 FTS	*76.7*		*40 - 275*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C8 FOSA	*66.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
d3-NMePFOSA	*52.5*		*10 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
d5-NEtPFOSA	*50.4*		*10 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
d3-NMeFOSAA	*56.3*		*40 - 135*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
d5-NEtFOSAA	*50.4*		*40 - 150*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
d7-N-MeFOSE-M	*36.6*		*20 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
d9-N-EtFOSE-M	*34.5*		*15 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*
13C3 HFPO-DA	*78.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 00:57*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**4.8**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**95.2**		1.0	1.0	%			12/19/24 14:58	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF7-20241217

Date Collected: 12/17/24 09:30
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-7

Matrix: Solid
Percent Solids: 95.1

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		3.1	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*91*		*10 - 122*	*12/31/24 18:13*	*01/02/25 18:06*	*1*
Fluoranthene-d10 (Surr)	*79*		*15 - 126*	*12/31/24 18:13*	*01/02/25 18:06*	*1*
1-Methylnaphthalene-d10 (Surr)	*72*		*22 - 120*	*12/31/24 18:13*	*01/02/25 18:06*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.40	0.099	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.099	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.99	0.30	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.99	0.30	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1

Client Sample ID: Import-CF7-20241217

Lab Sample ID: 410-201151-7

Date Collected: 12/17/24 09:30
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 95.1

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.40	0.20	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.99	0.50	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.99	0.40	ng/g	☼	12/21/24 09:13	12/24/24 01:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91.6*		*8 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C5 PFPeA	*74.3*		*35 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C5 PFHxA	*84.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C4 PFHpA	*82.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C2 PFDoA	*66.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C8 PFOA	*82.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C9 PFNA	*75.6*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C6 PFDA	*69.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C7 PFUnA	*76.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C2 PFTeDA	*44.6*		*20 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C3 PFBS	*82.9*		*40 - 135*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C3 PFHxS	*85.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C8 PFOS	*69.2*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
M2-4:2 FTS	*99.2*		*40 - 165*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
M2-6:2 FTS	*92.7*		*40 - 215*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
M2-8:2 FTS	*70.4*		*40 - 275*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C8 FOSA	*58.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
d3-NMePFOSA	*41.1*		*10 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
d5-NEtPFOSA	*38.6*		*10 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
d3-NMeFOSAA	*54.5*		*40 - 135*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
d5-NEtFOSAA	*51.3*		*40 - 150*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
d7-N-MeFOSE-M	*28.3*		*20 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
d9-N-EtFOSE-M	*28.7*		*15 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*
13C3 HFPO-DA	*75.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:11*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**4.9**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**95.1**		1.0	1.0	%			12/19/24 14:58	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF8-20241217

Date Collected: 12/17/24 09:35
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-8

Matrix: Solid
Percent Solids: 94.3

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		3.1	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*93*		*10 - 122*	*12/31/24 18:13*	*01/02/25 18:29*	*1*
Fluoranthene-d10 (Surr)	*80*		*15 - 126*	*12/31/24 18:13*	*01/02/25 18:29*	*1*
1-Methylnaphthalene-d10 (Surr)	*71*		*22 - 120*	*12/31/24 18:13*	*01/02/25 18:29*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.40	0.099	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.099	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.99	0.30	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.99	0.30	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF8-20241217

Lab Sample ID: 410-201151-8

Date Collected: 12/17/24 09:35
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 94.3

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.40	0.20	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.99	0.50	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.99	0.40	ng/g	☼	12/21/24 09:13	12/24/24 01:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*89.5*		*8 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C5 PFPeA	*78.3*		*35 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C5 PFHxA	*86.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C4 PFHpA	*83.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C2 PFDoA	*75.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C8 PFOA	*82.6*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C9 PFNA	*79.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C6 PFDA	*72.1*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C7 PFUnA	*82.1*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C2 PFTeDA	*46.5*		*20 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C3 PFBS	*80.4*		*40 - 135*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C3 PFHxS	*83.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C8 PFOS	*73.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
M2-4:2 FTS	*97.5*		*40 - 165*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
M2-6:2 FTS	*97.0*		*40 - 215*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
M2-8:2 FTS	*73.8*		*40 - 275*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C8 FOSA	*64.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
d3-NMePFOSA	*47.5*		*10 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
d5-NEtPFOSA	*45.7*		*10 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
d3-NMeFOSAA	*64.7*		*40 - 135*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
d5-NEtFOSAA	*58.5*		*40 - 150*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
d7-N-MeFOSE-M	*43.3*		*20 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
d9-N-EtFOSE-M	*35.2*		*15 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*
13C3 HFPO-DA	*74.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:25*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**5.7**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**94.3**		1.0	1.0	%			12/19/24 14:58	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: DUP-20241217

Date Collected: 12/17/24 00:00
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-9

Matrix: Solid
Percent Solids: 92.0

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	5.7		3.2	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*79*		*10 - 122*	*12/31/24 18:13*	*01/02/25 18:52*	*1*
Fluoranthene-d10 (Surr)	*69*		*15 - 126*	*12/31/24 18:13*	*01/02/25 18:52*	*1*
1-Methylnaphthalene-d10 (Surr)	*61*		*22 - 120*	*12/31/24 18:13*	*01/02/25 18:52*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.40	0.10	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.090	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.090	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.10	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.080	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1.0	0.30	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1.0	0.30	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: DUP-20241217

Date Collected: 12/17/24 00:00
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-9

Matrix: Solid
Percent Solids: 92.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.20	0.060	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.20	0.070	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.20	0.090	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.20	0.080	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.20	0.050	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.40	0.20	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1.0	0.50	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1.0	0.40	ng/g	☼	12/21/24 09:13	12/24/24 01:38	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.5*		*8 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C5 PFPeA	*81.1*		*35 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C5 PFHxA	*86.1*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C4 PFHpA	*82.2*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C2 PFDoA	*62.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C8 PFOA	*82.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C9 PFNA	*74.2*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C6 PFDA	*68.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C7 PFUnA	*72.1*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C2 PFTeDA	*39.9*		*20 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C3 PFBS	*80.9*		*40 - 135*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C3 PFHxS	*82.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C8 PFOS	*66.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
M2-4:2 FTS	*102*		*40 - 165*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
M2-6:2 FTS	*98.6*		*40 - 215*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
M2-8:2 FTS	*73.1*		*40 - 275*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C8 FOSA	*59.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
d3-NMePFOSA	*45.1*		*10 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
d5-NEtPFOSA	*42.1*		*10 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
d3-NMeFOSAA	*58.2*		*40 - 135*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
d5-NEtFOSAA	*52.8*		*40 - 150*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
d7-N-MeFOSE-M	*27.5*		*20 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
d9-N-EtFOSE-M	*21.8*		*15 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*
13C3 HFPO-DA	*78.1*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**8.0**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**92.0**		1.0	1.0	%			12/19/24 14:58	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: FB-20241217

Date Collected: 12/17/24 09:40
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-10

Matrix: Water

Method: EPA Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.9	1.1	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.59	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.78	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.88	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorononanoic acid (PFNA)	**0.82**	**J**	2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.78	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.59	ng/L		12/23/24 10:11	12/27/24 11:57	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		3.9	0.98	ng/L		12/23/24 10:11	12/27/24 11:57	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		3.9	0.98	ng/L		12/23/24 10:11	12/27/24 11:57	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		3.9	0.98	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		9.8	2.4	ng/L		12/23/24 10:11	12/27/24 11:57	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		9.8	2.4	ng/L		12/23/24 10:11	12/27/24 11:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	0.73	ng/L		12/23/24 10:11	12/27/24 11:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: FB-20241217

Lab Sample ID: 410-201151-10

Date Collected: 12/17/24 09:40
Matrix: Water
Date Received: 12/18/24 10:40

Method: EPA Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.49	ng/L		12/23/24 10:11	12/27/24 11:57	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.9	0.98	ng/L		12/23/24 10:11	12/27/24 11:57	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.8	2.7	ng/L		12/23/24 10:11	12/27/24 11:57	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.8	2.4	ng/L		12/23/24 10:11	12/27/24 11:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*83.0*		*5 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C5 PFPeA	*71.9*		*40 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C5 PFHxA	*73.4*		*40 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C4 PFHpA	*73.4*		*40 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C8 PFOA	*80.5*		*40 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C9 PFNA	*75.9*		*40 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C6 PFDA	*75.1*		*40 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C7 PFUnA	*86.6*		*30 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C2 PFTeDA	*59.8*		*10 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C3 PFBS	*81.0*		*40 - 135*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C3 PFHxS	*84.5*		*40 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C8 PFOS	*79.6*		*40 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C8 FOSA	*71.0*		*40 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
d3-NMeFOSAA	*70.2*		*40 - 170*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
d5-NEtFOSAA	*71.1*		*25 - 135*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
M2-4:2 FTS	*78.4*		*40 - 200*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
M2-6:2 FTS	*93.3*		*40 - 200*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
M2-8:2 FTS	*72.3*		*40 - 300*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C3 HFPO-DA	*69.8*		*40 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
d7-N-MeFOSE-M	*62.9*		*10 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
d9-N-EtFOSE-M	*59.9*		*10 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
d5-NEtPFOSA	*56.6*		*10 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
d3-NMePFOSA	*57.1*		*10 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*
13C2 PFDoA	*77.3*		*10 - 130*	*12/23/24 10:11*	*12/27/24 11:57*	*1*

Client Sample ID: Import-GF1-20241217

Lab Sample ID: 410-201151-11

Date Collected: 12/17/24 10:00
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 90.8

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**1.7**	**J**	3.3	1.5	ug/Kg	☼	12/31/24 18:13	01/02/25 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*99*		*10 - 122*	*12/31/24 18:13*	*01/02/25 19:15*	*1*
Fluoranthene-d10 (Surr)	*87*		*15 - 126*	*12/31/24 18:13*	*01/02/25 19:15*	*1*
1-Methylnaphthalene-d10 (Surr)	*68*		*22 - 120*	*12/31/24 18:13*	*01/02/25 19:15*	*1*

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-GF1-20241217

Lab Sample ID: 410-201151-11

Date Collected: 12/17/24 10:00
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 90.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.39	0.098	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.098	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.98	0.30	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.98	0.30	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-GF1-20241217

Lab Sample ID: 410-201151-11
Date Collected: 12/17/24 10:00
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 90.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.39	0.20	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.98	0.49	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.98	0.39	ng/g	☼	12/21/24 09:13	12/24/24 01:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.1*		*8 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C5 PFPeA	*74.8*		*35 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C5 PFHxA	*88.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C4 PFHpA	*85.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C2 PFDoA	*75.6*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C8 PFOA	*87.2*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C9 PFNA	*81.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C6 PFDA	*74.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C7 PFUnA	*83.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C2 PFTeDA	*52.4*		*20 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C3 PFBS	*87.4*		*40 - 135*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C3 PFHxS	*87.1*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C8 PFOS	*66.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
M2-4:2 FTS	*110*		*40 - 165*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
M2-6:2 FTS	*104*		*40 - 215*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
M2-8:2 FTS	*79.3*		*40 - 275*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C8 FOSA	*66.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
d3-NMePFOSA	*52.2*		*10 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
d5-NEtPFOSA	*47.7*		*10 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
d3-NMeFOSAA	*69.0*		*40 - 135*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
d5-NEtFOSAA	*64.0*		*40 - 150*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
d7-N-MeFOSE-M	*35.9*		*20 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
d9-N-EtFOSE-M	*31.4*		*15 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*
13C3 HFPO-DA	*76.1*		*40 - 130*	*12/21/24 09:13*	*12/24/24 01:52*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**9.2**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**90.8**		1.0	1.0	%			12/19/24 14:58	1

Client Sample ID: Import-GF2-20241217

Lab Sample ID: 410-201151-12
Date Collected: 12/17/24 10:05
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 95.2

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		3.1	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*81*		*10 - 122*	*12/31/24 18:13*	*01/02/25 19:38*	*1*

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-GF2-20241217

Lab Sample ID: 410-201151-12

Date Collected: 12/17/24 10:05
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 95.2

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10 (Surr)	*74*		*15 - 126*	*12/31/24 18:13*	*01/02/25 19:38*	*1*
1-Methylnaphthalene-d10 (Surr)	*40*		*22 - 120*	*12/31/24 18:13*	*01/02/25 19:38*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluoropentanoic acid (PFPeA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorohexanoic acid (PFHxA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluoroheptanoic acid (PFHpA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorooctanoic acid (PFOA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorononanoic acid (PFNA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorododecanoic acid (PFDoA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorononanesulfonic acid (PFNS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.39	0.097	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.19	0.097	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.19	0.077	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.97	0.29	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.97	0.29	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-GF2-20241217

Lab Sample ID: 410-201151-12

Date Collected: 12/17/24 10:05
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 95.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.19	0.077	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.39	0.19	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.97	0.48	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.97	0.39	ng/g	☼	12/21/24 09:13	12/24/24 02:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.5*		*8 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C5 PFPeA	*78.6*		*35 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C5 PFHxA	*85.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C4 PFHpA	*84.2*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C2 PFDoA	*76.1*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C8 PFOA	*86.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C9 PFNA	*81.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C6 PFDA	*77.2*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C7 PFUnA	*86.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C2 PFTeDA	*50.4*		*20 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C3 PFBS	*84.2*		*40 - 135*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C3 PFHxS	*86.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C8 PFOS	*75.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
M2-4:2 FTS	*103*		*40 - 165*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
M2-6:2 FTS	*100*		*40 - 215*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
M2-8:2 FTS	*78.2*		*40 - 275*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C8 FOSA	*64.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
d3-NMePFOSA	*48.4*		*10 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
d5-NEtPFOSA	*45.3*		*10 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
d3-NMeFOSAA	*63.4*		*40 - 135*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
d5-NEtFOSAA	*58.3*		*40 - 150*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
d7-N-MeFOSE-M	*41.4*		*20 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
d9-N-EtFOSE-M	*36.5*		*15 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*
13C3 HFPO-DA	*75.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:32*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**4.8**		1.0	1.0	%			12/19/24 14:58	1
Percent Solids (EPA Moisture)	**95.2**		1.0	1.0	%			12/19/24 14:58	1

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-GF3-20241217

Lab Sample ID: 410-201151-13

Date Collected: 12/17/24 10:10
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 92.4

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	13		3.2	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*87*		*10 - 122*	*12/31/24 18:13*	*01/02/25 20:01*	*1*
Fluoranthene-d10 (Surr)	*75*		*15 - 126*	*12/31/24 18:13*	*01/02/25 20:01*	*1*
1-Methylnaphthalene-d10 (Surr)	*68*		*22 - 120*	*12/31/24 18:13*	*01/02/25 20:01*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.40	0.099	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.40	0.13	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.099	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.99	0.30	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.99	0.30	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.20	0.11	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-GF3-20241217

Date Collected: 12/17/24 10:10
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-13

Matrix: Solid
Percent Solids: 92.4

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.20	0.059	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.20	0.069	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.20	0.089	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.20	0.079	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.20	0.049	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.40	0.20	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.99	0.49	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.99	0.40	ng/g	☼	12/21/24 09:13	12/24/24 02:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.0*		*8 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C5 PFPeA	*82.8*		*35 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C5 PFHxA	*89.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C4 PFHpA	*86.2*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C2 PFDoA	*77.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C8 PFOA	*89.2*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C9 PFNA	*85.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C6 PFDA	*81.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C7 PFUnA	*90.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C2 PFTeDA	*50.5*		*20 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C3 PFBS	*85.7*		*40 - 135*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C3 PFHxS	*91.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C8 PFOS	*79.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
M2-4:2 FTS	*102*		*40 - 165*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
M2-6:2 FTS	*105*		*40 - 215*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
M2-8:2 FTS	*78.9*		*40 - 275*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C8 FOSA	*70.1*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
d3-NMePFOSA	*54.9*		*10 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
d5-NEtPFOSA	*49.3*		*10 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
d3-NMeFOSAA	*66.8*		*40 - 135*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
d5-NEtFOSAA	*59.8*		*40 - 150*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
d7-N-MeFOSE-M	*49.0*		*20 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
d9-N-EtFOSE-M	*46.6*		*15 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*
13C3 HFPO-DA	*80.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 02:46*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**7.6**		1.0	1.0	%			12/19/24 16:00	1
Percent Solids (EPA Moisture)	**92.4**		1.0	1.0	%			12/19/24 16:00	1

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-GF4-20241217

Lab Sample ID: 410-201151-14

Date Collected: 12/17/24 10:15
Date Received: 12/18/24 10:40

Matrix: Solid
Percent Solids: 92.9

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	7.6		3.2	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*93*		*10 - 122*	*12/31/24 18:13*	*01/02/25 20:24*	*1*
Fluoranthene-d10 (Surr)	*86*		*15 - 126*	*12/31/24 18:13*	*01/02/25 20:24*	*1*
1-Methylnaphthalene-d10 (Surr)	*62*		*22 - 120*	*12/31/24 18:13*	*01/02/25 20:24*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluoropentanoic acid (PFPeA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorohexanoic acid (PFHxA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluoroheptanoic acid (PFHpA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorooctanoic acid (PFOA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorononanoic acid (PFNA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorododecanoic acid (PFDoA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorononanesulfonic acid (PFNS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.39	0.097	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.19	0.088	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.19	0.088	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.19	0.097	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.19	0.078	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.97	0.29	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.97	0.29	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-GF4-20241217
Date Collected: 12/17/24 10:15
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-14
Matrix: Solid
Percent Solids: 92.9

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.19	0.088	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.19	0.078	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.19	0.049	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.39	0.19	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.97	0.49	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.97	0.39	ng/g	☼	12/21/24 09:13	12/24/24 03:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95.7*		*8 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C5 PFPeA	*85.9*		*35 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C5 PFHxA	*91.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C4 PFHpA	*86.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C2 PFDoA	*82.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C8 PFOA	*91.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C9 PFNA	*84.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C6 PFDA	*80.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C7 PFUnA	*94.5*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C2 PFTeDA	*52.3*		*20 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C3 PFBS	*86.7*		*40 - 135*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C3 PFHxS	*91.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C8 PFOS	*80.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
M2-4:2 FTS	*105*		*40 - 165*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
M2-6:2 FTS	*103*		*40 - 215*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
M2-8:2 FTS	*84.2*		*40 - 275*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C8 FOSA	*69.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
d3-NMePFOSA	*56.0*		*10 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
d5-NEtPFOSA	*51.0*		*10 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
d3-NMeFOSAA	*70.3*		*40 - 135*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
d5-NEtFOSAA	*67.0*		*40 - 150*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
d7-N-MeFOSE-M	*52.5*		*20 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
d9-N-EtFOSE-M	*50.0*		*15 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*
13C3 HFPO-DA	*81.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:00*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**7.1**		1.0	1.0	%			12/19/24 16:00	1
Percent Solids (EPA Moisture)	**92.9**		1.0	1.0	%			12/19/24 16:00	1

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: DUP-20241217

Date Collected: 12/17/24 00:00
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-15

Matrix: Solid
Percent Solids: 92.6

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	6.9		3.2	1.4	ug/Kg	☼	12/31/24 18:13	01/02/25 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*70*		*10 - 122*	*12/31/24 18:13*	*01/02/25 20:47*	*1*
Fluoranthene-d10 (Surr)	*62*		*15 - 126*	*12/31/24 18:13*	*01/02/25 20:47*	*1*
1-Methylnaphthalene-d10 (Surr)	*64*		*22 - 120*	*12/31/24 18:13*	*01/02/25 20:47*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluoropentanoic acid (PFPeA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorohexanoic acid (PFHxA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluoroheptanoic acid (PFHpA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorooctanoic acid (PFOA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorononanoic acid (PFNA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorododecanoic acid (PFDoA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorononanesulfonic acid (PFNS)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.39	0.097	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.39	0.13	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.19	0.097	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.19	0.077	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		0.97	0.29	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		0.97	0.29	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.19	0.11	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: DUP-20241217

Date Collected: 12/17/24 00:00
Date Received: 12/18/24 10:40

Lab Sample ID: 410-201151-15

Matrix: Solid
Percent Solids: 92.6

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.19	0.058	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.19	0.068	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.19	0.087	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.19	0.077	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.19	0.048	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.39	0.19	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.97	0.48	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.97	0.39	ng/g	☼	12/21/24 09:13	12/24/24 03:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91.7*		*8 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C5 PFPeA	*74.6*		*35 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C5 PFHxA	*84.7*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C4 PFHpA	*84.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C2 PFDoA	*81.1*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C8 PFOA	*85.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C9 PFNA	*81.6*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C6 PFDA	*78.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C7 PFUnA	*87.0*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C2 PFTeDA	*51.1*		*20 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C3 PFBS	*85.4*		*40 - 135*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C3 PFHxS	*89.9*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C8 PFOS	*77.8*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
M2-4:2 FTS	*104*		*40 - 165*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
M2-6:2 FTS	*100*		*40 - 215*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
M2-8:2 FTS	*85.1*		*40 - 275*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C8 FOSA	*67.4*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
d3-NMePFOSA	*53.0*		*10 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
d5-NEtPFOSA	*48.5*		*10 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
d3-NMeFOSAA	*70.5*		*40 - 135*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
d5-NEtFOSAA	*67.5*		*40 - 150*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
d7-N-MeFOSE-M	*55.7*		*20 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
d9-N-EtFOSE-M	*53.5*		*15 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*
13C3 HFPO-DA	*76.3*		*40 - 130*	*12/21/24 09:13*	*12/24/24 03:13*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**7.4**		1.0	1.0	%			12/19/24 16:00	1
Percent Solids (EPA Moisture)	**92.6**		1.0	1.0	%			12/19/24 16:00	1

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Client Sample Results

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: FB-20241217

Lab Sample ID: 410-201151-16

Date Collected: 12/17/24 10:20

Matrix: Water

Date Received: 12/18/24 10:40

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.31	0.17	ug/L		12/23/24 17:51	12/30/24 08:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*81*		*10 - 136*	*12/23/24 17:51*	*12/30/24 08:36*	*1*
Fluoranthene-d10 (Surr)	*86*		*29 - 153*	*12/23/24 17:51*	*12/30/24 08:36*	*1*
1-Methylnaphthalene-d10 (Surr)	*76*		*20 - 144*	*12/23/24 17:51*	*12/30/24 08:36*	*1*

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Surrogate Summary

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BAPd12	FLN10	MNPd10
Lab Sample ID	Client Sample ID	(10-122)	(15-126)	(22-120)
410-201151-1	Import-CF1-20241217	94	84	60
410-201151-2	Import-CF2-20241217	94	79	80
410-201151-3	Import-CF3-20241217	90	77	66
410-201151-4	Import-CF4-20241217	85	71	69
410-201151-4 MS	Import-CF4-20241217	102	89	91
410-201151-4 MSD	Import-CF4-20241217	100	92	63
410-201151-5	Import-CF5-20241217	92	84	70
410-201151-6	Import-CF6-20241217	82	72	68
410-201151-7	Import-CF7-20241217	91	79	72
410-201151-8	Import-CF8-20241217	93	80	71
410-201151-9	DUP-20241217	79	69	61
410-201151-11	Import-GF1-20241217	99	87	68
410-201151-12	Import-GF2-20241217	81	74	40
410-201151-13	Import-GF3-20241217	87	75	68
410-201151-14	Import-GF4-20241217	93	86	62
410-201151-15	DUP-20241217	70	62	64
LCS 410-591440/2-A	Lab Control Sample	102	92	69
MB 410-591440/1-A	Method Blank	89	76	78

Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)
FLN10 = Fluoranthene-d10 (Surr)
MNPd10 = 1-Methylnaphthalene-d10 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BAPd12	FLN10	MNPd10
Lab Sample ID	Client Sample ID	(10-136)	(29-153)	(20-144)
410-201151-16	FB-20241217	81	86	76
LCS 410-589653/2-A	Lab Control Sample	84	93	101
MB 410-589653/1-A	Method Blank	79	90	102

Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)
FLN10 = Fluoranthene-d10 (Surr)
MNPd10 = 1-Methylnaphthalene-d10 (Surr)

Isotope Dilution Summary

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	PFDoA	C8PFOA	C9PFNA	C6PFDA
Lab Sample ID	Client Sample ID	(8-130)	(35-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)
410-201151-1	Import-CF1-20241217	86.2	71.2	69.8	67.2	75.4	65.8	63.2	64.1
410-201151-2	Import-CF2-20241217	92.2	79.5	86.1	82.3	79.0	87.2	80.2	79.2
410-201151-3	Import-CF3-20241217	93.1	73.9	85.1	83.8	75.4	88.5	81.2	75.0
410-201151-4	Import-CF4-20241217	90.6	78.2	86.9	84.6	79.5	85.9	81.9	80.6
410-201151-4 MS	Import-CF4-20241217	93.2	82.1	86.4	86.2	70.6	84.4	79.6	76.6
410-201151-4 MSD	Import-CF4-20241217	92.3	79.1	84.7	81.0	75.0	86.5	80.3	75.1
410-201151-5	Import-CF5-20241217	109	95.1	102	98.0	89.5	103	95.6	89.4
410-201151-6	Import-CF6-20241217	91.3	75.8	85.3	86.0	68.7	83.9	80.6	75.4
410-201151-7	Import-CF7-20241217	91.6	74.3	84.8	82.9	66.5	82.7	75.6	69.3
410-201151-8	Import-CF8-20241217	89.5	78.3	86.0	83.4	75.9	82.6	79.0	72.1
410-201151-9	DUP-20241217	92.5	81.1	86.1	82.2	62.5	82.3	74.2	68.5
410-201151-11	Import-GF1-20241217	93.1	74.8	88.4	85.9	75.6	87.2	81.5	74.8
410-201151-12	Import-GF2-20241217	92.5	78.6	85.9	84.2	76.1	86.3	81.3	77.2
410-201151-13	Import-GF3-20241217	96.0	82.8	89.4	86.2	77.9	89.2	85.0	81.4
410-201151-14	Import-GF4-20241217	95.7	85.9	91.3	86.3	82.3	91.7	84.9	80.8
410-201151-15	DUP-20241217	91.7	74.6	84.7	84.0	81.1	85.8	81.6	78.4
LCS 410-589061/2-A	Lab Control Sample	92.9	78.0	88.4	86.7	87.5	89.1	85.7	83.2
LLCS 410-589061/3-A	Lab Control Sample	91.8	75.3	85.6	82.7	78.4	82.8	78.8	75.9
MB 410-589061/1-A	Method Blank	88.4	73.5	81.2	84.5	76.3	84.9	75.9	75.4

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C7PUA	PFTDA	C3PFBS	C3PFHS	C8PFOS	M242FTS	M262FTS	M282FTS
Lab Sample ID	Client Sample ID	(40-130)	(20-130)	(40-135)	(40-130)	(40-130)	(40-165)	(40-215)	(40-275)
410-201151-1	Import-CF1-20241217	78.1	52.3	71.4	73.9	68.0	85.5	78.2	62.2
410-201151-2	Import-CF2-20241217	88.1	53.5	84.8	86.2	70.2	103	99.9	82.5
410-201151-3	Import-CF3-20241217	82.0	47.6	87.5	89.3	75.7	101	103	81.2
410-201151-4	Import-CF4-20241217	92.5	53.6	86.2	91.8	82.5	102	101	81.9
410-201151-4 MS	Import-CF4-20241217	85.4	49.7	85.3	87.0	73.3	102	99.5	75.2
410-201151-4 MSD	Import-CF4-20241217	85.0	46.8	84.0	88.1	71.4	101	98.3	76.8
410-201151-5	Import-CF5-20241217	104	61.2	95.8	99.0	86.7	115	119	93.8
410-201151-6	Import-CF6-20241217	83.4	39.5	82.8	83.3	72.4	101	96.4	76.7
410-201151-7	Import-CF7-20241217	76.7	44.6	82.9	85.5	69.2	99.2	92.7	70.4
410-201151-8	Import-CF8-20241217	82.1	46.5	80.4	83.9	73.7	97.5	97.0	73.8
410-201151-9	DUP-20241217	72.1	39.9	80.9	82.0	66.5	102	98.6	73.1
410-201151-11	Import-GF1-20241217	83.3	52.4	87.4	87.1	66.9	110	104	79.3
410-201151-12	Import-GF2-20241217	86.5	50.4	84.2	86.8	75.8	103	100	78.2
410-201151-13	Import-GF3-20241217	90.9	50.5	85.7	91.9	79.4	102	105	78.9
410-201151-14	Import-GF4-20241217	94.5	52.3	86.7	91.7	80.0	105	103	84.2
410-201151-15	DUP-20241217	87.0	51.1	85.4	89.9	77.8	104	100	85.1
LCS 410-589061/2-A	Lab Control Sample	93.1	62.2	89.2	92.6	84.2	105	98.7	87.5
LLCS 410-589061/3-A	Lab Control Sample	85.0	54.7	85.5	86.0	71.7	103	101	76.6
MB 410-589061/1-A	Method Blank	83.7	62.1	85.3	85.3	74.7	104	95.5	81.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFOSA	d3NMFSA	d5NPFSA	d3NMFOS	d5NEFOS	NMFM	NEFM	HFPODA
Lab Sample ID	Client Sample ID	(40-130)	(10-130)	(10-130)	(40-135)	(40-150)	(20-130)	(15-130)	(40-130)
410-201151-1	Import-CF1-20241217	50.7	39.8	40.9	54.1	55.1	34.1	33.0	65.0
410-201151-2	Import-CF2-20241217	67.6	51.1	45.8	67.8	65.4	38.0	33.7	76.9
410-201151-3	Import-CF3-20241217	64.5	49.3	45.4	67.4	63.5	37.3	35.5	75.4
410-201151-4	Import-CF4-20241217	67.2	49.7	47.9	63.4	59.4	36.9	36.2	77.8
410-201151-4 MS	Import-CF4-20241217	66.0	53.9	49.9	57.5	50.8	35.4	34.7	78.9

Isotope Dilution Summary

Client: Brown and Caldwell
Job ID: 410-201151-1
Project/Site: Troy NY Water PFAS

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFOSA	d3NMFSA	d5NPFSA	d3NMFOS	d5NEFOS	NMFM	NEFM	HFPODA
Lab Sample ID	Client Sample ID	(40-130)	(10-130)	(10-130)	(40-135)	(40-150)	(20-130)	(15-130)	(40-130)
410-201151-4 MSD	Import-CF4-20241217	63.1	51.6	47.5	63.7	58.4	33.6	32.1	77.0
410-201151-5	Import-CF5-20241217	79.4	64.3	59.5	73.6	72.5	53.7	47.3	88.9
410-201151-6	Import-CF6-20241217	66.3	52.5	50.4	56.3	50.4	36.6	34.5	78.7
410-201151-7	Import-CF7-20241217	58.7	41.1	38.6	54.5	51.3	28.3	28.7	75.7
410-201151-8	Import-CF8-20241217	64.0	47.5	45.7	64.7	58.5	43.3	35.2	74.3
410-201151-9	DUP-20241217	59.3	45.1	42.1	58.2	52.8	27.5	21.8	78.1
410-201151-11	Import-GF1-20241217	66.9	52.2	47.7	69.0	64.0	35.9	31.4	76.1
410-201151-12	Import-GF2-20241217	64.8	48.4	45.3	63.4	58.3	41.4	36.5	75.8
410-201151-13	Import-GF3-20241217	70.1	54.9	49.3	66.8	59.8	49.0	46.6	80.9
410-201151-14	Import-GF4-20241217	69.8	56.0	51.0	70.3	67.0	52.5	50.0	81.4
410-201151-15	DUP-20241217	67.4	53.0	48.5	70.5	67.5	55.7	53.5	76.3
LCS 410-589061/2-A	Lab Control Sample	71.3	54.0	54.6	74.2	71.0	54.0	50.6	77.5
LLCS 410-589061/3-A	Lab Control Sample	63.9	47.9	45.6	68.7	63.2	34.1	32.7	77.0
MB 410-589061/1-A	Method Blank	62.3	47.0	44.2	70.6	65.7	31.4	28.7	75.8

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
PFDoA = 13C2 PFDoA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFOSA = 13C8 FOSA
d3NMFSA = d3-NMePFOSA
d5NPFSA = d5-NEtPFOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
HFPODA = 13C3 HFPO-DA

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)
410-201151-10	FB-20241217	83.0	71.9	73.4	73.4	80.5	75.9	75.1	86.6
LCS 410-589433/2-A	Lab Control Sample	80.7	68.1	65.1	71.6	77.1	72.0	73.7	84.3
LCSD 410-589433/3-A	Lab Control Sample Dup	81.9	67.2	59.5	69.1	77.1	71.1	74.8	85.0
LLCS 410-589433/4-A	Lab Control Sample	83.6	57.8	62.7	63.2	75.4	74.7	79.9	85.2

Isotope Dilution Summary

Client: Brown and Caldwell
Job ID: 410-201151-1
Project/Site: Troy NY Water PFAS

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)
MB 410-589433/1-A	Method Blank	77.2	65.3	62.6	63.2	73.4	68.1	69.7	79.0

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(40-135)	(40-130)	(40-130)	(40-130)	(40-170)	(25-135)	(40-200)
410-201151-10	FB-20241217	59.8	81.0	84.5	79.6	71.0	70.2	71.1	78.4
LCS 410-589433/2-A	Lab Control Sample	62.2	80.9	80.3	74.4	64.0	58.2	56.3	73.1
LCSD 410-589433/3-A	Lab Control Sample Dup	50.2	74.3	80.3	79.4	66.9	64.5	65.8	73.8
LLCS 410-589433/4-A	Lab Control Sample	65.7	79.5	84.3	81.8	69.0	65.3	67.7	81.1
MB 410-589433/1-A	Method Blank	53.6	65.8	70.0	75.2	66.6	59.0	58.7	66.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoA
Lab Sample ID	Client Sample ID	(40-200)	(40-300)	(40-130)	(10-130)	(10-130)	(10-130)	(10-130)	(10-130)
410-201151-10	FB-20241217	93.3	72.3	69.8	62.9	59.9	56.6	57.1	77.3
LCS 410-589433/2-A	Lab Control Sample	85.3	70.2	62.5	51.9	48.0	54.4	54.3	77.9
LCSD 410-589433/3-A	Lab Control Sample Dup	82.2	65.8	65.7	62.0	56.8	53.8	61.1	76.0
LLCS 410-589433/4-A	Lab Control Sample	87.3	71.3	58.4	61.7	60.0	54.8	61.9	79.0
MB 410-589433/1-A	Method Blank	73.0	60.2	64.4	58.7	56.7	58.6	55.9	67.1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-589653/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 590661 — **Prep Batch: 589653**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.32	0.17	ug/L		12/23/24 17:51	12/30/24 07:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*79*		*10 - 136*	*12/23/24 17:51*	*12/30/24 07:26*	*1*
Fluoranthene-d10 (Surr)	*90*		*29 - 153*	*12/23/24 17:51*	*12/30/24 07:26*	*1*
1-Methylnaphthalene-d10 (Surr)	*102*		*20 - 144*	*12/23/24 17:51*	*12/30/24 07:26*	*1*

Lab Sample ID: LCS 410-589653/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 590661 — **Prep Batch: 589653**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1.06	0.528		ug/L		50	14 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Benzo(a)pyrene-d12 (Surr)	*84*		*10 - 136*
Fluoranthene-d10 (Surr)	*93*		*29 - 153*
1-Methylnaphthalene-d10 (Surr)	*101*		*20 - 144*

Lab Sample ID: MB 410-591440/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 591521 — **Prep Batch: 591440**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		3.0	1.3	ug/Kg		12/31/24 18:13	01/01/25 16:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Benzo(a)pyrene-d12 (Surr)	*89*		*10 - 122*	*12/31/24 18:13*	*01/01/25 16:59*	*1*
Fluoranthene-d10 (Surr)	*76*		*15 - 126*	*12/31/24 18:13*	*01/01/25 16:59*	*1*
1-Methylnaphthalene-d10 (Surr)	*78*		*22 - 120*	*12/31/24 18:13*	*01/01/25 16:59*	*1*

Lab Sample ID: LCS 410-591440/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 591521 — **Prep Batch: 591440**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	33.3	13.9		ug/Kg		42	30 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Benzo(a)pyrene-d12 (Surr)	*102*		*10 - 122*
Fluoranthene-d10 (Surr)	*92*		*15 - 126*
1-Methylnaphthalene-d10 (Surr)	*69*		*22 - 120*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 410-201151-4 MS — **Client Sample ID: Import-CF4-20241217**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 591521 — **Prep Batch: 591440**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	ND	F2	40.6	21.3		ug/Kg	☼	53	27 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Benzo(a)pyrene-d12 (Surr)	*102*		*10 - 122*
Fluoranthene-d10 (Surr)	*89*		*15 - 126*
1-Methylnaphthalene-d10 (Surr)	*91*		*22 - 120*

Lab Sample ID: 410-201151-4 MSD — **Client Sample ID: Import-CF4-20241217**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 591521 — **Prep Batch: 591440**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	ND	F2	40.8	12.9	F2	ug/Kg	☼	32	27 - 120	49	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Benzo(a)pyrene-d12 (Surr)	*100*		*10 - 122*
Fluoranthene-d10 (Surr)	*92*		*15 - 126*
1-Methylnaphthalene-d10 (Surr)	*63*		*22 - 120*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 410-589061/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 589353 — **Prep Batch: 589061**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.40	0.13	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.050	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.060	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.070	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.060	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.060	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.070	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.070	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.070	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.060	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.070	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.11	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.070	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.060	ng/g		12/21/24 09:13	12/23/24 22:41	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 410-589061/1-A
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589061

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		0.40	0.10	ng/g		12/21/24 09:13	12/23/24 22:41	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		0.40	0.13	ng/g		12/21/24 09:13	12/23/24 22:41	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		0.40	0.13	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.090	ng/g		12/21/24 09:13	12/23/24 22:41	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.090	ng/g		12/21/24 09:13	12/23/24 22:41	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.10	ng/g		12/21/24 09:13	12/23/24 22:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.080	ng/g		12/21/24 09:13	12/23/24 22:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.11	ng/g		12/21/24 09:13	12/23/24 22:41	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1.0	0.30	ng/g		12/21/24 09:13	12/23/24 22:41	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1.0	0.30	ng/g		12/21/24 09:13	12/23/24 22:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.20	0.11	ng/g		12/21/24 09:13	12/23/24 22:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.20	0.060	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.20	0.070	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.20	0.050	ng/g		12/21/24 09:13	12/23/24 22:41	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.20	0.070	ng/g		12/21/24 09:13	12/23/24 22:41	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.20	0.090	ng/g		12/21/24 09:13	12/23/24 22:41	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.20	0.080	ng/g		12/21/24 09:13	12/23/24 22:41	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.20	0.050	ng/g		12/21/24 09:13	12/23/24 22:41	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.40	0.20	ng/g		12/21/24 09:13	12/23/24 22:41	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1.0	0.50	ng/g		12/21/24 09:13	12/23/24 22:41	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1.0	0.40	ng/g		12/21/24 09:13	12/23/24 22:41	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88.4*		*8 - 130*	*12/21/24 09:13*	*12/23/24 22:41*	*1*
13C5 PFPeA	*73.5*		*35 - 130*	*12/21/24 09:13*	*12/23/24 22:41*	*1*
13C5 PFHxA	*81.2*		*40 - 130*	*12/21/24 09:13*	*12/23/24 22:41*	*1*
13C4 PFHpA	*84.5*		*40 - 130*	*12/21/24 09:13*	*12/23/24 22:41*	*1*
13C8 PFOA	*84.9*		*40 - 130*	*12/21/24 09:13*	*12/23/24 22:41*	*1*
13C9 PFNA	*75.9*		*40 - 130*	*12/21/24 09:13*	*12/23/24 22:41*	*1*
13C6 PFDA	*75.4*		*40 - 130*	*12/21/24 09:13*	*12/23/24 22:41*	*1*
13C7 PFUnA	*83.7*		*40 - 130*	*12/21/24 09:13*	*12/23/24 22:41*	*1*
13C2 PFTeDA	*62.1*		*20 - 130*	*12/21/24 09:13*	*12/23/24 22:41*	*1*
13C3 PFBS	*85.3*		*40 - 135*	*12/21/24 09:13*	*12/23/24 22:41*	*1*
13C3 PFHxS	*85.3*		*40 - 130*	*12/21/24 09:13*	*12/23/24 22:41*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 410-589061/1-A
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589061

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	74.7		40 - 130	12/21/24 09:13	12/23/24 22:41	1
M2-4:2 FTS	104		40 - 165	12/21/24 09:13	12/23/24 22:41	1
13C8 FOSA	62.3		40 - 130	12/21/24 09:13	12/23/24 22:41	1
M2-6:2 FTS	95.5		40 - 215	12/21/24 09:13	12/23/24 22:41	1
M2-8:2 FTS	81.5		40 - 275	12/21/24 09:13	12/23/24 22:41	1
d3-NMeFOSAA	70.6		40 - 135	12/21/24 09:13	12/23/24 22:41	1
d5-NEtFOSAA	65.7		40 - 150	12/21/24 09:13	12/23/24 22:41	1
d5-NEtPFOSA	44.2		10 - 130	12/21/24 09:13	12/23/24 22:41	1
d7-N-MeFOSE-M	31.4		20 - 130	12/21/24 09:13	12/23/24 22:41	1
d3-NMePFOSA	47.0		10 - 130	12/21/24 09:13	12/23/24 22:41	1
d9-N-EtFOSE-M	28.7		15 - 130	12/21/24 09:13	12/23/24 22:41	1
13C2 PFDoA	76.3		40 - 130	12/21/24 09:13	12/23/24 22:41	1
13C3 HFPO-DA	75.8		40 - 130	12/21/24 09:13	12/23/24 22:41	1

Lab Sample ID: LCS 410-589061/2-A
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	5.00	5.12		ng/g		102	70 - 140
Perfluoropentanoic acid (PFPeA)	2.50	2.87		ng/g		115	60 - 150
Perfluorohexanoic acid (PFHxA)	2.50	2.51		ng/g		101	65 - 140
Perfluoroheptanoic acid (PFHpA)	2.50	2.47		ng/g		99	65 - 145
Perfluorooctanoic acid (PFOA)	2.50	2.55		ng/g		102	70 - 150
Perfluorononanoic acid (PFNA)	2.50	2.64		ng/g		106	70 - 155
Perfluorodecanoic acid (PFDA)	2.50	2.24		ng/g		89	70 - 155
Perfluoroundecanoic acid (PFUnA)	2.50	3.06		ng/g		122	70 - 155
Perfluorododecanoic acid (PFDoA)	2.50	3.00		ng/g		120	70 - 150
Perfluorotridecanoic acid (PFTrDA)	2.50	2.65		ng/g		106	65 - 150
Perfluorotetradecanoic acid (PFTeDA)	2.50	3.16		ng/g		126	65 - 150
Perfluorobutanesulfonic acid (PFBS)	2.22	2.21		ng/g		100	65 - 145
Perfluoropentanesulfonic acid (PFPeS)	2.35	2.28		ng/g		97	55 - 160
Perfluorohexanesulfonic acid (PFHxS)	2.28	2.31		ng/g		101	60 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.39	2.29		ng/g		96	65 - 155
Perfluorooctanesulfonic acid (PFOS)	2.33	2.21		ng/g		95	65 - 160
Perfluorononanesulfonic acid (PFNS)	2.41	2.21		ng/g		92	55 - 140
Perfluorodecanesulfonic acid (PFDS)	2.41	2.08		ng/g		86	40 - 155
Perfluorododecanesulfonic acid (PFDoS)	2.43	1.54		ng/g		64	25 - 160
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	4.67	4.67		ng/g		100	60 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 410-589061/2-A
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	4.74	4.72		ng/g		99	55 - 200
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	4.79	4.58		ng/g		96	70 - 150
Perfluorooctanesulfonamide (PFOSA)	2.50	2.55		ng/g		102	70 - 140
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.50	2.85		ng/g		114	70 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.50	2.74		ng/g		110	70 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.50	2.64		ng/g		106	65 - 155
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.50	2.34		ng/g		93	65 - 165
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12.5	12.6		ng/g		101	70 - 140
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12.5	12.3		ng/g		99	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.88	1.85		ng/g		99	70 - 145
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.37	2.80		ng/g		119	70 - 160
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.50	3.09		ng/g		124	30 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.50	2.63		ng/g		105	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.50	2.29		ng/g		92	60 - 155
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.34	2.93		ng/g		125	70 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.36	2.60		ng/g		110	45 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.23	2.20		ng/g		99	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	5.00	5.92		ng/g		118	45 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	12.5	11.1		ng/g		89	60 - 130
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	12.5	11.0		ng/g		88	60 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*92.9*		*8 - 130*
13C5 PFPeA	*78.0*		*35 - 130*
13C5 PFHxA	*88.4*		*40 - 130*
13C4 PFHpA	*86.7*		*40 - 130*
13C8 PFOA	*89.1*		*40 - 130*
13C9 PFNA	*85.7*		*40 - 130*
13C6 PFDA	*83.2*		*40 - 130*
13C7 PFUnA	*93.1*		*40 - 130*
13C2 PFTeDA	*62.2*		*20 - 130*
13C3 PFBS	*89.2*		*40 - 135*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 410-589061/2-A
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589061

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C3 PFHxS	*92.6*		*40 - 130*
13C8 PFOS	*84.2*		*40 - 130*
M2-4:2 FTS	*105*		*40 - 165*
13C8 FOSA	*71.3*		*40 - 130*
M2-6:2 FTS	*98.7*		*40 - 215*
M2-8:2 FTS	*87.5*		*40 - 275*
d3-NMeFOSAA	*74.2*		*40 - 135*
d5-NEtFOSAA	*71.0*		*40 - 150*
d5-NEtPFOSA	*54.6*		*10 - 130*
d7-N-MeFOSE-M	*54.0*		*20 - 130*
d3-NMePFOSA	*54.0*		*10 - 130*
d9-N-EtFOSE-M	*50.6*		*15 - 130*
13C2 PFDoA	*87.5*		*40 - 130*
13C3 HFPO-DA	*77.5*		*40 - 130*

Lab Sample ID: LLCS 410-589061/3-A
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589061

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.500	0.563		ng/g		113	70 - 140
Perfluoropentanoic acid (PFPeA)	0.250	0.300		ng/g		120	60 - 150
Perfluorohexanoic acid (PFHxA)	0.250	0.275		ng/g		110	65 - 140
Perfluoroheptanoic acid (PFHpA)	0.250	0.264		ng/g		106	65 - 145
Perfluorooctanoic acid (PFOA)	0.250	0.308		ng/g		123	70 - 150
Perfluorononanoic acid (PFNA)	0.250	0.278		ng/g		111	70 - 155
Perfluorodecanoic acid (PFDA)	0.250	0.230		ng/g		92	70 - 155
Perfluoroundecanoic acid (PFUnA)	0.250	0.299		ng/g		119	70 - 155
Perfluorododecanoic acid (PFDoA)	0.250	0.315		ng/g		126	70 - 150
Perfluorotridecanoic acid (PFTrDA)	0.250	0.304		ng/g		122	65 - 150
Perfluorotetradecanoic acid (PFTeDA)	0.250	0.354		ng/g		142	65 - 150
Perfluorobutanesulfonic acid (PFBS)	0.221	0.245		ng/g		111	65 - 145
Perfluoropentanesulfonic acid (PFPeS)	0.235	0.278		ng/g		118	55 - 160
Perfluorohexanesulfonic acid (PFHxS)	0.228	0.267		ng/g		117	60 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.238	0.251		ng/g		105	65 - 155
Perfluorooctanesulfonic acid (PFOS)	0.232	0.227		ng/g		98	65 - 160
Perfluorononanesulfonic acid (PFNS)	0.240	0.225		ng/g		94	55 - 140
Perfluorodecanesulfonic acid (PFDS)	0.241	0.230		ng/g		95	40 - 155
Perfluorododecanesulfonic acid (PFDoS)	0.242	0.166	J	ng/g		68	25 - 160

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 410-589061/3-A
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589061

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	0.467	0.536		ng/g		115	60 - 150
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	0.474	0.547		ng/g		115	55 - 200
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	0.479	0.531		ng/g		111	70 - 150
Perfluorooctanesulfonamide (PFOSA)	0.250	0.279		ng/g		112	70 - 140
N-methylperfluorooctane sulfonamide (NMeFOSA)	0.250	0.301		ng/g		120	70 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.250	0.286		ng/g		114	70 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.250	0.252		ng/g		101	65 - 155
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.250	0.284		ng/g		113	65 - 165
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	1.25	1.53		ng/g		122	70 - 140
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	1.25	1.42		ng/g		114	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	0.188	0.194	J	ng/g		104	70 - 145
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.236	0.278		ng/g		118	70 - 160
Perfluoro-3-methoxypropanoic acid (PFMPA)	0.250	0.348		ng/g		139	30 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	0.250	0.297		ng/g		119	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.250	0.280		ng/g		112	60 - 155
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	0.233	0.249		ng/g		107	70 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	0.236	0.235		ng/g		100	45 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	0.223	0.241		ng/g		108	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	0.500	0.603		ng/g		121	45 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	1.25	1.18		ng/g		94	60 - 130
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	1.25	1.23		ng/g		98	60 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*91.8*		*8 - 130*
13C5 PFPeA	*75.3*		*35 - 130*
13C5 PFHxA	*85.6*		*40 - 130*
13C4 PFHpA	*82.7*		*40 - 130*
13C8 PFOA	*82.8*		*40 - 130*
13C9 PFNA	*78.8*		*40 - 130*
13C6 PFDA	*75.9*		*40 - 130*
13C7 PFUnA	*85.0*		*40 - 130*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 410-589061/3-A
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589061

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 PFTeDA	*54.7*		*20 - 130*
13C3 PFBS	*85.5*		*40 - 135*
13C3 PFHxS	*86.0*		*40 - 130*
13C8 PFOS	*71.7*		*40 - 130*
M2-4:2 FTS	*103*		*40 - 165*
13C8 FOSA	*63.9*		*40 - 130*
M2-6:2 FTS	*101*		*40 - 215*
M2-8:2 FTS	*76.6*		*40 - 275*
d3-NMeFOSAA	*68.7*		*40 - 135*
d5-NEtFOSAA	*63.2*		*40 - 150*
d5-NEtPFOSA	*45.6*		*10 - 130*
d7-N-MeFOSE-M	*34.1*		*20 - 130*
d3-NMePFOSA	*47.9*		*10 - 130*
d9-N-EtFOSE-M	*32.7*		*15 - 130*
13C2 PFDoA	*78.4*		*40 - 130*
13C3 HFPO-DA	*77.0*		*40 - 130*

Lab Sample ID: 410-201151-4 MS
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Import-CF4-20241217
Prep Type: Total/NA
Prep Batch: 589061

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	ND		4.97	5.09		ng/g	☼	102	70 - 140
Perfluoropentanoic acid (PFPeA)	ND		2.48	2.86		ng/g	☼	115	60 - 150
Perfluorohexanoic acid (PFHxA)	ND		2.48	2.56		ng/g	☼	103	65 - 140
Perfluoroheptanoic acid (PFHpA)	ND		2.48	2.52		ng/g	☼	101	65 - 145
Perfluorooctanoic acid (PFOA)	ND		2.48	2.67		ng/g	☼	108	70 - 150
Perfluorononanoic acid (PFNA)	ND		2.48	2.71		ng/g	☼	109	70 - 155
Perfluorodecanoic acid (PFDA)	ND		2.48	2.23		ng/g	☼	90	70 - 155
Perfluoroundecanoic acid (PFUnA)	ND		2.48	2.70		ng/g	☼	109	70 - 155
Perfluorododecanoic acid (PFDoA)	ND		2.48	3.00		ng/g	☼	121	70 - 150
Perfluorotridecanoic acid (PFTrDA)	ND		2.48	2.51		ng/g	☼	101	65 - 150
Perfluorotetradecanoic acid (PFTeDA)	ND		2.48	3.18		ng/g	☼	128	65 - 150
Perfluorobutanesulfonic acid (PFBS)	ND		2.21	2.33		ng/g	☼	106	65 - 145
Perfluoropentanesulfonic acid (PFPeS)	ND		2.34	2.47		ng/g	☼	106	55 - 160
Perfluorohexanesulfonic acid (PFHxS)	ND		2.27	2.43		ng/g	☼	107	60 - 150
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.37	2.37		ng/g	☼	100	65 - 155
Perfluorooctanesulfonic acid (PFOS)	ND		2.31	2.12		ng/g	☼	92	65 - 160
Perfluorononanesulfonic acid (PFNS)	ND		2.39	2.16		ng/g	☼	91	55 - 140
Perfluorodecanesulfonic acid (PFDS)	ND		2.39	1.99		ng/g	☼	83	40 - 155

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 410-201151-4 MS
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Import-CF4-20241217
Prep Type: Total/NA
Prep Batch: 589061

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorododecanesulfonic acid (PFDoS)	ND		2.41	1.35		ng/g	☼	56	25 - 160
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		4.64	4.83		ng/g	☼	104	60 - 150
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		4.71	4.70		ng/g	☼	100	55 - 200
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		4.76	4.97		ng/g	☼	105	70 - 150
Perfluorooctanesulfonamide (PFOSA)	ND		2.48	2.59		ng/g	☼	104	70 - 140
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.48	2.78		ng/g	☼	112	70 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.48	2.73		ng/g	☼	110	70 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.48	2.60		ng/g	☼	105	65 - 155
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.48	2.54		ng/g	☼	102	65 - 165
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		12.4	13.0		ng/g	☼	105	70 - 140
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		12.4	12.1		ng/g	☼	98	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.86	1.87		ng/g	☼	100	70 - 145
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.35	2.78		ng/g	☼	118	70 - 160
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.48	2.83		ng/g	☼	114	30 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.48	2.57		ng/g	☼	104	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.48	2.38		ng/g	☼	96	60 - 155
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.32	2.56		ng/g	☼	111	70 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.35	2.18		ng/g	☼	93	45 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.21	2.36		ng/g	☼	107	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.97	5.34		ng/g	☼	107	45 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		12.4	11.5		ng/g	☼	92	60 - 130
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		12.4	9.90		ng/g	☼	80	60 - 150

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFBA	*93.2*		*8 - 130*
13C5 PFPeA	*82.1*		*35 - 130*
13C5 PFHxA	*86.4*		*40 - 130*
13C4 PFHpA	*86.2*		*40 - 130*
13C2 PFDoA	*70.6*		*40 - 130*
13C8 PFOA	*84.4*		*40 - 130*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 410-201151-4 MS
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Import-CF4-20241217
Prep Type: Total/NA
Prep Batch: 589061

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C9 PFNA	*79.6*		*40 - 130*
13C6 PFDA	*76.6*		*40 - 130*
13C7 PFUnA	*85.4*		*40 - 130*
13C2 PFTeDA	*49.7*		*20 - 130*
13C3 PFBS	*85.3*		*40 - 135*
13C3 PFHxS	*87.0*		*40 - 130*
13C8 PFOS	*73.3*		*40 - 130*
M2-4:2 FTS	*102*		*40 - 165*
M2-6:2 FTS	*99.5*		*40 - 215*
M2-8:2 FTS	*75.2*		*40 - 275*
13C8 FOSA	*66.0*		*40 - 130*
d3-NMePFOSA	*53.9*		*10 - 130*
d5-NEtPFOSA	*49.9*		*10 - 130*
d3-NMeFOSAA	*57.5*		*40 - 135*
d5-NEtFOSAA	*50.8*		*40 - 150*
d7-N-MeFOSE-M	*35.4*		*20 - 130*
d9-N-EtFOSE-M	*34.7*		*15 - 130*
13C3 HFPO-DA	*78.9*		*40 - 130*

Lab Sample ID: 410-201151-4 MSD
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Import-CF4-20241217
Prep Type: Total/NA
Prep Batch: 589061

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	ND		4.93	5.20		ng/g	☼	106	70 - 140	2	30
Perfluoropentanoic acid (PFPeA)	ND		2.46	2.90		ng/g	☼	117	60 - 150	1	30
Perfluorohexanoic acid (PFHxA)	ND		2.46	2.61		ng/g	☼	106	65 - 140	2	30
Perfluoroheptanoic acid (PFHpA)	ND		2.46	2.60		ng/g	☼	106	65 - 145	3	30
Perfluorooctanoic acid (PFOA)	ND		2.46	2.72		ng/g	☼	110	70 - 150	2	30
Perfluorononanoic acid (PFNA)	ND		2.46	2.70		ng/g	☼	109	70 - 155	0	30
Perfluorodecanoic acid (PFDA)	ND		2.46	2.27		ng/g	☼	92	70 - 155	2	30
Perfluoroundecanoic acid (PFUnA)	ND		2.46	2.71		ng/g	☼	110	70 - 155	0	30
Perfluorododecanoic acid (PFDoA)	ND		2.46	2.90		ng/g	☼	118	70 - 150	4	30
Perfluorotridecanoic acid (PFTrDA)	ND		2.46	2.63		ng/g	☼	107	65 - 150	5	30
Perfluorotetradecanoic acid (PFTeDA)	ND		2.46	3.37		ng/g	☼	137	65 - 150	6	30
Perfluorobutanesulfonic acid (PFBS)	ND		2.19	2.36		ng/g	☼	108	65 - 145	1	30
Perfluoropentanesulfonic acid (PFPeS)	ND		2.32	2.43		ng/g	☼	105	55 - 160	2	30
Perfluorohexanesulfonic acid (PFHxS)	ND		2.25	2.44		ng/g	☼	109	60 - 150	0	30
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.35	2.38		ng/g	☼	101	65 - 155	1	30
Perfluorooctanesulfonic acid (PFOS)	ND		2.29	2.22		ng/g	☼	97	65 - 160	5	30
Perfluorononanesulfonic acid (PFNS)	ND		2.37	2.27		ng/g	☼	96	55 - 140	5	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 410-201151-4 MSD
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Import-CF4-20241217
Prep Type: Total/NA
Prep Batch: 589061

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorodecanesulfonic acid (PFDS)	ND		2.38	2.03		ng/g	☼	85	40 - 155	2	30
Perfluorododecanesulfonic acid (PFDoS)	ND		2.39	1.38		ng/g	☼	58	25 - 160	2	30
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		4.60	4.84		ng/g	☼	105	60 - 150	0	30
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		4.67	4.84		ng/g	☼	103	55 - 200	3	30
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		4.72	4.78		ng/g	☼	101	70 - 150	4	30
Perfluorooctanesulfonamide (PFOSA)	ND		2.46	2.66		ng/g	☼	108	70 - 140	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.46	2.83		ng/g	☼	115	70 - 155	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.46	2.81		ng/g	☼	114	70 - 140	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.46	2.71		ng/g	☼	110	65 - 155	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.46	2.61		ng/g	☼	106	65 - 165	3	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		12.3	13.3		ng/g	☼	108	70 - 140	2	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		12.3	12.9		ng/g	☼	104	70 - 135	6	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.85	1.98		ng/g	☼	107	70 - 145	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.33	2.80		ng/g	☼	120	70 - 160	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.46	2.95		ng/g	☼	120	30 - 140	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.46	2.63		ng/g	☼	107	60 - 150	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.46	2.57		ng/g	☼	104	60 - 155	8	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.30	2.66		ng/g	☼	116	70 - 150	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.33	2.24		ng/g	☼	96	45 - 160	3	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.19	2.22		ng/g	☼	101	70 - 140	6	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.93	5.58		ng/g	☼	113	45 - 130	4	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		12.3	11.7		ng/g	☼	95	60 - 130	2	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		12.3	10.9		ng/g	☼	89	60 - 150	10	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFBA	*92.3*		*8 - 130*
13C5 PFPeA	*79.1*		*35 - 130*
13C5 PFHxA	*84.7*		*40 - 130*
13C4 PFHpA	*81.0*		*40 - 130*
13C2 PFDoA	*75.0*		*40 - 130*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 410-201151-4 MSD
Matrix: Solid
Analysis Batch: 589353

Client Sample ID: Import-CF4-20241217
Prep Type: Total/NA
Prep Batch: 589061

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C8 PFOA	*86.5*		*40 - 130*
13C9 PFNA	*80.3*		*40 - 130*
13C6 PFDA	*75.1*		*40 - 130*
13C7 PFUnA	*85.0*		*40 - 130*
13C2 PFTeDA	*46.8*		*20 - 130*
13C3 PFBS	*84.0*		*40 - 135*
13C3 PFHxS	*88.1*		*40 - 130*
13C8 PFOS	*71.4*		*40 - 130*
M2-4:2 FTS	*101*		*40 - 165*
M2-6:2 FTS	*98.3*		*40 - 215*
M2-8:2 FTS	*76.8*		*40 - 275*
13C8 FOSA	*63.1*		*40 - 130*
d3-NMePFOSA	*51.6*		*10 - 130*
d5-NEtPFOSA	*47.5*		*10 - 130*
d3-NMeFOSAA	*63.7*		*40 - 135*
d5-NEtFOSAA	*58.4*		*40 - 150*
d7-N-MeFOSE-M	*33.6*		*20 - 130*
d9-N-EtFOSE-M	*32.1*		*15 - 130*
13C3 HFPO-DA	*77.0*		*40 - 130*

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 410-589433/1-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589433

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		12/23/24 10:11	12/27/24 09:55	1

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 410-589433/1-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589433

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		4.0	1.0	ng/L		12/23/24 10:11	12/27/24 09:55	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		4.0	1.0	ng/L		12/23/24 10:11	12/27/24 09:55	1
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	ND		4.0	1.0	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		12/23/24 10:11	12/27/24 09:55	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	2.5	ng/L		12/23/24 10:11	12/27/24 09:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	0.75	ng/L		12/23/24 10:11	12/27/24 09:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		12/23/24 10:11	12/27/24 09:55	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		12/23/24 10:11	12/27/24 09:55	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		12/23/24 10:11	12/27/24 09:55	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		12/23/24 10:11	12/27/24 09:55	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*77.2*		*5 - 130*	*12/23/24 10:11*	*12/27/24 09:55*	*1*
13C5 PFPeA	*65.3*		*40 - 130*	*12/23/24 10:11*	*12/27/24 09:55*	*1*
13C5 PFHxA	*62.6*		*40 - 130*	*12/23/24 10:11*	*12/27/24 09:55*	*1*
13C4 PFHpA	*63.2*		*40 - 130*	*12/23/24 10:11*	*12/27/24 09:55*	*1*
13C8 PFOA	*73.4*		*40 - 130*	*12/23/24 10:11*	*12/27/24 09:55*	*1*
13C9 PFNA	*68.1*		*40 - 130*	*12/23/24 10:11*	*12/27/24 09:55*	*1*
13C6 PFDA	*69.7*		*40 - 130*	*12/23/24 10:11*	*12/27/24 09:55*	*1*
13C7 PFUnA	*79.0*		*30 - 130*	*12/23/24 10:11*	*12/27/24 09:55*	*1*
13C2 PFTeDA	*53.6*		*10 - 130*	*12/23/24 10:11*	*12/27/24 09:55*	*1*
13C3 PFBS	*65.8*		*40 - 135*	*12/23/24 10:11*	*12/27/24 09:55*	*1*
13C3 PFHxS	*70.0*		*40 - 130*	*12/23/24 10:11*	*12/27/24 09:55*	*1*

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 410-589433/1-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589433

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	75.2		40 - 130	12/23/24 10:11	12/27/24 09:55	1
M2-4:2 FTS	66.2		40 - 200	12/23/24 10:11	12/27/24 09:55	1
13C8 FOSA	66.6		40 - 130	12/23/24 10:11	12/27/24 09:55	1
M2-6:2 FTS	73.0		40 - 200	12/23/24 10:11	12/27/24 09:55	1
M2-8:2 FTS	60.2		40 - 300	12/23/24 10:11	12/27/24 09:55	1
d3-NMeFOSAA	59.0		40 - 170	12/23/24 10:11	12/27/24 09:55	1
d5-NEtFOSAA	58.7		25 - 135	12/23/24 10:11	12/27/24 09:55	1
d5-NEtPFOSA	58.6		10 - 130	12/23/24 10:11	12/27/24 09:55	1
d7-N-MeFOSE-M	58.7		10 - 130	12/23/24 10:11	12/27/24 09:55	1
d3-NMePFOSA	55.9		10 - 130	12/23/24 10:11	12/27/24 09:55	1
d9-N-EtFOSE-M	56.7		10 - 130	12/23/24 10:11	12/27/24 09:55	1
13C2 PFDoA	67.1		10 - 130	12/23/24 10:11	12/27/24 09:55	1
13C3 HFPO-DA	64.4		40 - 130	12/23/24 10:11	12/27/24 09:55	1

Lab Sample ID: LCS 410-589433/2-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589433

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	82.3		ng/L		103	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	40.7		ng/L		102	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	42.3		ng/L		106	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	37.0		ng/L		92	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	38.1		ng/L		95	70 - 150
Perfluorononanoic acid (PFNA)	40.0	42.0		ng/L		105	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	31.0		ng/L		78	70 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	40.1		ng/L		100	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	38.5		ng/L		96	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	43.0		ng/L		107	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	45.4		ng/L		113	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	34.6		ng/L		97	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	39.5		ng/L		105	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	39.0		ng/L		107	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.1		ng/L		87	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	29.4		ng/L		79	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	33.5		ng/L		87	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	30.5		ng/L		79	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	28.0		ng/L		72	50 - 145
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	74.7	79.0		ng/L		106	70 - 145

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 410-589433/2-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589433

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	75.8	74.1		ng/L		98	65 - 155
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	76.6	83.3		ng/L		109	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	40.0		ng/L		100	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	44.6		ng/L		111	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	42.8		ng/L		107	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	42.7		ng/L		107	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	44.7		ng/L		112	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	216		ng/L		108	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	211		ng/L		105	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	34.7		ng/L		116	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	42.0		ng/L		111	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	42.0		ng/L		105	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	39.7		ng/L		99	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	42.4		ng/L		106	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	42.7		ng/L		114	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	40.8		ng/L		108	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.6	38.0		ng/L		107	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	79.4		ng/L		99	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	204		ng/L		102	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	212		ng/L		106	50 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*80.7*		*5 - 130*
13C5 PFPeA	*68.1*		*40 - 130*
13C5 PFHxA	*65.1*		*40 - 130*
13C4 PFHpA	*71.6*		*40 - 130*
13C8 PFOA	*77.1*		*40 - 130*
13C9 PFNA	*72.0*		*40 - 130*
13C6 PFDA	*73.7*		*40 - 130*
13C7 PFUnA	*84.3*		*30 - 130*
13C2 PFTeDA	*62.2*		*10 - 130*
13C3 PFBS	*80.9*		*40 - 135*

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 410-589433/2-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589433

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C3 PFHxS	*80.3*		*40 - 130*
13C8 PFOS	*74.4*		*40 - 130*
M2-4:2 FTS	*73.1*		*40 - 200*
13C8 FOSA	*64.0*		*40 - 130*
M2-6:2 FTS	*85.3*		*40 - 200*
M2-8:2 FTS	*70.2*		*40 - 300*
d3-NMeFOSAA	*58.2*		*40 - 170*
d5-NEtFOSAA	*56.3*		*25 - 135*
d5-NEtPFOSA	*54.4*		*10 - 130*
d7-N-MeFOSE-M	*51.9*		*10 - 130*
d3-NMePFOSA	*54.3*		*10 - 130*
d9-N-EtFOSE-M	*48.0*		*10 - 130*
13C2 PFDoA	*77.9*		*10 - 130*
13C3 HFPO-DA	*62.5*		*40 - 130*

Lab Sample ID: LCSD 410-589433/3-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589433

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	80.0	83.2		ng/L		104	70 - 140	1	30
Perfluoropentanoic acid (PFPeA)	40.0	39.9		ng/L		100	65 - 135	2	30
Perfluorohexanoic acid (PFHxA)	40.0	45.8		ng/L		115	70 - 145	8	30
Perfluoroheptanoic acid (PFHpA)	40.0	38.8		ng/L		97	70 - 150	5	30
Perfluorooctanoic acid (PFOA)	40.0	38.2		ng/L		96	70 - 150	0	30
Perfluorononanoic acid (PFNA)	40.0	42.9		ng/L		107	70 - 150	2	30
Perfluorodecanoic acid (PFDA)	40.0	30.5		ng/L		76	70 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	39.2		ng/L		98	70 - 145	2	30
Perfluorododecanoic acid (PFDoA)	40.0	40.8		ng/L		102	70 - 140	6	30
Perfluorotridecanoic acid (PFTrDA)	40.0	45.1		ng/L		113	65 - 140	5	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	47.7		ng/L		119	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)	35.5	40.4		ng/L		114	60 - 145	15	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	39.2		ng/L		104	65 - 140	1	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	39.3		ng/L		108	65 - 145	1	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.4		ng/L		88	70 - 150	1	30
Perfluorooctanesulfonic acid (PFOS)	37.2	27.9		ng/L		75	55 - 150	5	30
Perfluorononanesulfonic acid (PFNS)	38.5	34.7		ng/L		90	65 - 145	3	30
Perfluorodecanesulfonic acid (PFDS)	38.6	32.6		ng/L		84	60 - 145	6	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	25.6		ng/L		66	50 - 145	9	30

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 410-589433/3-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589433

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)			74.7	77.0		ng/L		103	70 - 145	3	30
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)			75.8	74.6		ng/L		98	65 - 155	1	30
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)			76.6	89.5		ng/L		117	60 - 150	7	30
Perfluorooctanesulfonamide (PFOSA)			40.0	41.3		ng/L		103	70 - 145	3	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			40.0	41.7		ng/L		104	60 - 150	7	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			40.0	47.1		ng/L		118	65 - 145	10	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	43.4		ng/L		109	50 - 140	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	39.0		ng/L		98	70 - 145	14	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			200	211		ng/L		105	70 - 145	3	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			200	212		ng/L		106	70 - 135	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			30.0	33.5		ng/L		112	70 - 140	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	37.1		ng/L		98	65 - 145	12	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			40.0	42.8		ng/L		107	55 - 140	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			40.0	39.7		ng/L		99	60 - 150	0	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	44.2		ng/L		110	50 - 150	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	40.8		ng/L		109	70 - 155	5	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	38.2		ng/L		101	55 - 160	7	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.6	42.0		ng/L		118	70 - 140	10	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	80.7		ng/L		101	65 - 130	2	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	214		ng/L		107	70 - 135	5	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	213		ng/L		107	50 - 145	0	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*81.9*		*5 - 130*
13C5 PFPeA	*67.2*		*40 - 130*
13C5 PFHxA	*59.5*		*40 - 130*
13C4 PFHpA	*69.1*		*40 - 130*
13C8 PFOA	*77.1*		*40 - 130*
13C9 PFNA	*71.1*		*40 - 130*
13C6 PFDA	*74.8*		*40 - 130*
13C7 PFUnA	*85.0*		*30 - 130*

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 410-589433/3-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 589433

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2 PFTeDA	*50.2*		*10 - 130*
13C3 PFBS	*74.3*		*40 - 135*
13C3 PFHxS	*80.3*		*40 - 130*
13C8 PFOS	*79.4*		*40 - 130*
M2-4:2 FTS	*73.8*		*40 - 200*
13C8 FOSA	*66.9*		*40 - 130*
M2-6:2 FTS	*82.2*		*40 - 200*
M2-8:2 FTS	*65.8*		*40 - 300*
d3-NMeFOSAA	*64.5*		*40 - 170*
d5-NEtFOSAA	*65.8*		*25 - 135*
d5-NEtPFOSA	*53.8*		*10 - 130*
d7-N-MeFOSE-M	*62.0*		*10 - 130*
d3-NMePFOSA	*61.1*		*10 - 130*
d9-N-EtFOSE-M	*56.8*		*10 - 130*
13C2 PFDoA	*76.0*		*10 - 130*
13C3 HFPO-DA	*65.7*		*40 - 130*

Lab Sample ID: LLCS 410-589433/4-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589433

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	8.18		ng/L		102	70 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.07		ng/L		102	65 - 135
Perfluorohexanoic acid (PFHxA)	4.00	4.70		ng/L		118	70 - 145
Perfluoroheptanoic acid (PFHpA)	4.00	3.55		ng/L		89	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.25		ng/L		106	70 - 150
Perfluorononanoic acid (PFNA)	4.00	4.26		ng/L		106	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.18		ng/L		79	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.15		ng/L		104	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.00		ng/L		100	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.11		ng/L		103	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.85		ng/L		96	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.54	3.71		ng/L		105	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.75	3.45		ng/L		92	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.64	3.47		ng/L		95	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.81	3.13		ng/L		82	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.71	2.77		ng/L		75	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.84	3.13		ng/L		81	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.03		ng/L		79	60 - 145

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 410-589433/4-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589433

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorododecanesulfonic acid (PFDoS)	3.87	2.89		ng/L		75	50 - 145
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	7.47	6.57		ng/L		88	70 - 145
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	7.58	8.20		ng/L		108	65 - 155
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	7.66	7.71		ng/L		101	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.94		ng/L		98	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.05		ng/L		101	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.51		ng/L		113	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.71		ng/L		93	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.71		ng/L		93	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	22.6		ng/L		113	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	20.7		ng/L		103	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	3.53		ng/L		118	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.77	3.78		ng/L		100	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.61		ng/L		115	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.50		ng/L		112	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.71		ng/L		93	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.73	3.78		ng/L		101	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.77	3.72		ng/L		99	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.56	3.36		ng/L		94	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	8.32		ng/L		104	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	17.8		ng/L		89	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	14.8		ng/L		74	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*83.6*		*5 - 130*
13C5 PFPeA	*57.8*		*40 - 130*
13C5 PFHxA	*62.7*		*40 - 130*
13C4 PFHpA	*63.2*		*40 - 130*
13C8 PFOA	*75.4*		*40 - 130*
13C9 PFNA	*74.7*		*40 - 130*

Method: Draft-4 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 410-589433/4-A
Matrix: Water
Analysis Batch: 590011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589433

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
13C6 PFDA	79.9		40 - 130
13C7 PFUnA	85.2		30 - 130
13C2 PFTeDA	65.7		10 - 130
13C3 PFBS	79.5		40 - 135
13C3 PFHxS	84.3		40 - 130
13C8 PFOS	81.8		40 - 130
M2-4:2 FTS	81.1		40 - 200
13C8 FOSA	69.0		40 - 130
M2-6:2 FTS	87.3		40 - 200
M2-8:2 FTS	71.3		40 - 300
d3-NMeFOSAA	65.3		40 - 170
d5-NEtFOSAA	67.7		25 - 135
d5-NEtPFOSA	54.8		10 - 130
d7-N-MeFOSE-M	61.7		10 - 130
d3-NMePFOSA	61.9		10 - 130
d9-N-EtFOSE-M	60.0		10 - 130
13C2 PFDoA	79.0		10 - 130
13C3 HFPO-DA	58.4		40 - 130

GC/MS Semi VOA

Prep Batch: 589653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-16	FB-20241217	Total/NA	Water	3510C	
MB 410-589653/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-589653/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 590661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-589653/1-A	Method Blank	Total/NA	Water	8270E SIM	589653
LCS 410-589653/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	589653

Analysis Batch: 590664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-16	FB-20241217	Total/NA	Water	8270E SIM	589653

Prep Batch: 591440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-1	Import-CF1-20241217	Total/NA	Solid	3546	
410-201151-2	Import-CF2-20241217	Total/NA	Solid	3546	
410-201151-3	Import-CF3-20241217	Total/NA	Solid	3546	
410-201151-4	Import-CF4-20241217	Total/NA	Solid	3546	
410-201151-5	Import-CF5-20241217	Total/NA	Solid	3546	
410-201151-6	Import-CF6-20241217	Total/NA	Solid	3546	
410-201151-7	Import-CF7-20241217	Total/NA	Solid	3546	
410-201151-8	Import-CF8-20241217	Total/NA	Solid	3546	
410-201151-9	DUP-20241217	Total/NA	Solid	3546	
410-201151-11	Import-GF1-20241217	Total/NA	Solid	3546	
410-201151-12	Import-GF2-20241217	Total/NA	Solid	3546	
410-201151-13	Import-GF3-20241217	Total/NA	Solid	3546	
410-201151-14	Import-GF4-20241217	Total/NA	Solid	3546	
410-201151-15	DUP-20241217	Total/NA	Solid	3546	
MB 410-591440/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-591440/2-A	Lab Control Sample	Total/NA	Solid	3546	
410-201151-4 MS	Import-CF4-20241217	Total/NA	Solid	3546	
410-201151-4 MSD	Import-CF4-20241217	Total/NA	Solid	3546	

Analysis Batch: 591521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-1	Import-CF1-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-2	Import-CF2-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-3	Import-CF3-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-4	Import-CF4-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-5	Import-CF5-20241217	Total/NA	Solid	8270E SIM	591440
MB 410-591440/1-A	Method Blank	Total/NA	Solid	8270E SIM	591440
LCS 410-591440/2-A	Lab Control Sample	Total/NA	Solid	8270E SIM	591440
410-201151-4 MS	Import-CF4-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-4 MSD	Import-CF4-20241217	Total/NA	Solid	8270E SIM	591440

Analysis Batch: 591837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-6	Import-CF6-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-7	Import-CF7-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-8	Import-CF8-20241217	Total/NA	Solid	8270E SIM	591440

GC/MS Semi VOA (Continued)

Analysis Batch: 591837 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-9	DUP-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-11	Import-GF1-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-12	Import-GF2-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-13	Import-GF3-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-14	Import-GF4-20241217	Total/NA	Solid	8270E SIM	591440
410-201151-15	DUP-20241217	Total/NA	Solid	8270E SIM	591440

LCMS

Prep Batch: 589061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-1	Import-CF1-20241217	Total/NA	Solid	1633 Shake	
410-201151-2	Import-CF2-20241217	Total/NA	Solid	1633 Shake	
410-201151-3	Import-CF3-20241217	Total/NA	Solid	1633 Shake	
410-201151-4	Import-CF4-20241217	Total/NA	Solid	1633 Shake	
410-201151-5	Import-CF5-20241217	Total/NA	Solid	1633 Shake	
410-201151-6	Import-CF6-20241217	Total/NA	Solid	1633 Shake	
410-201151-7	Import-CF7-20241217	Total/NA	Solid	1633 Shake	
410-201151-8	Import-CF8-20241217	Total/NA	Solid	1633 Shake	
410-201151-9	DUP-20241217	Total/NA	Solid	1633 Shake	
410-201151-11	Import-GF1-20241217	Total/NA	Solid	1633 Shake	
410-201151-12	Import-GF2-20241217	Total/NA	Solid	1633 Shake	
410-201151-13	Import-GF3-20241217	Total/NA	Solid	1633 Shake	
410-201151-14	Import-GF4-20241217	Total/NA	Solid	1633 Shake	
410-201151-15	DUP-20241217	Total/NA	Solid	1633 Shake	
MB 410-589061/1-A	Method Blank	Total/NA	Solid	1633 Shake	
LCS 410-589061/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LLCS 410-589061/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
410-201151-4 MS	Import-CF4-20241217	Total/NA	Solid	1633 Shake	
410-201151-4 MSD	Import-CF4-20241217	Total/NA	Solid	1633 Shake	

Analysis Batch: 589353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-1	Import-CF1-20241217	Total/NA	Solid	1633	589061
410-201151-2	Import-CF2-20241217	Total/NA	Solid	1633	589061
410-201151-3	Import-CF3-20241217	Total/NA	Solid	1633	589061
410-201151-4	Import-CF4-20241217	Total/NA	Solid	1633	589061
410-201151-5	Import-CF5-20241217	Total/NA	Solid	1633	589061
410-201151-6	Import-CF6-20241217	Total/NA	Solid	1633	589061
410-201151-7	Import-CF7-20241217	Total/NA	Solid	1633	589061
410-201151-8	Import-CF8-20241217	Total/NA	Solid	1633	589061
410-201151-9	DUP-20241217	Total/NA	Solid	1633	589061
410-201151-11	Import-GF1-20241217	Total/NA	Solid	1633	589061
410-201151-12	Import-GF2-20241217	Total/NA	Solid	1633	589061
410-201151-13	Import-GF3-20241217	Total/NA	Solid	1633	589061
410-201151-14	Import-GF4-20241217	Total/NA	Solid	1633	589061
410-201151-15	DUP-20241217	Total/NA	Solid	1633	589061
MB 410-589061/1-A	Method Blank	Total/NA	Solid	1633	589061
LCS 410-589061/2-A	Lab Control Sample	Total/NA	Solid	1633	589061
LLCS 410-589061/3-A	Lab Control Sample	Total/NA	Solid	1633	589061
410-201151-4 MS	Import-CF4-20241217	Total/NA	Solid	1633	589061

LCMS (Continued)

Analysis Batch: 589353 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-4 MSD	Import-CF4-20241217	Total/NA	Solid	1633	589061

Prep Batch: 589433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-10	FB-20241217	Total/NA	Water	1633	
MB 410-589433/1-A	Method Blank	Total/NA	Water	1633	
LCS 410-589433/2-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 410-589433/3-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 410-589433/4-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 590011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-10	FB-20241217	Total/NA	Water	Draft-4 1633	589433
MB 410-589433/1-A	Method Blank	Total/NA	Water	Draft-4 1633	589433
LCS 410-589433/2-A	Lab Control Sample	Total/NA	Water	Draft-4 1633	589433
LCSD 410-589433/3-A	Lab Control Sample Dup	Total/NA	Water	Draft-4 1633	589433
LLCS 410-589433/4-A	Lab Control Sample	Total/NA	Water	Draft-4 1633	589433

General Chemistry

Analysis Batch: 588333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-1	Import-CF1-20241217	Total/NA	Solid	Moisture	
410-201151-2	Import-CF2-20241217	Total/NA	Solid	Moisture	
410-201151-3	Import-CF3-20241217	Total/NA	Solid	Moisture	
410-201151-4	Import-CF4-20241217	Total/NA	Solid	Moisture	
410-201151-5	Import-CF5-20241217	Total/NA	Solid	Moisture	
410-201151-6	Import-CF6-20241217	Total/NA	Solid	Moisture	
410-201151-7	Import-CF7-20241217	Total/NA	Solid	Moisture	
410-201151-8	Import-CF8-20241217	Total/NA	Solid	Moisture	
410-201151-9	DUP-20241217	Total/NA	Solid	Moisture	
410-201151-11	Import-GF1-20241217	Total/NA	Solid	Moisture	
410-201151-12	Import-GF2-20241217	Total/NA	Solid	Moisture	

Analysis Batch: 588369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-201151-13	Import-GF3-20241217	Total/NA	Solid	Moisture	
410-201151-14	Import-GF4-20241217	Total/NA	Solid	Moisture	
410-201151-15	DUP-20241217	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF1-20241217

Lab Sample ID: 410-201151-1
Date Collected: 12/17/24 09:00
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: Import-CF1-20241217

Lab Sample ID: 410-201151-1
Date Collected: 12/17/24 09:00
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591521	TB8M	ELLE	01/02/25 01:29
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/23/24 23:22

Client Sample ID: Import-CF2-20241217

Lab Sample ID: 410-201151-2
Date Collected: 12/17/24 09:05
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: Import-CF2-20241217

Lab Sample ID: 410-201151-2
Date Collected: 12/17/24 09:05
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591521	TB8M	ELLE	01/02/25 01:53
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/23/24 23:36

Client Sample ID: Import-CF3-20241217

Lab Sample ID: 410-201151-3
Date Collected: 12/17/24 09:10
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: Import-CF3-20241217

Lab Sample ID: 410-201151-3
Date Collected: 12/17/24 09:10
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591521	TB8M	ELLE	01/02/25 02:16
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/23/24 23:49

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF4-20241217

Lab Sample ID: 410-201151-4
Date Collected: 12/17/24 09:15
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: Import-CF4-20241217

Lab Sample ID: 410-201151-4
Date Collected: 12/17/24 09:15
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591521	TB8M	ELLE	01/02/25 00:20
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 00:03

Client Sample ID: Import-CF5-20241217

Lab Sample ID: 410-201151-5
Date Collected: 12/17/24 09:20
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: Import-CF5-20241217

Lab Sample ID: 410-201151-5
Date Collected: 12/17/24 09:20
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591521	TB8M	ELLE	01/02/25 02:39
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 00:44

Client Sample ID: Import-CF6-20241217

Lab Sample ID: 410-201151-6
Date Collected: 12/17/24 09:25
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: Import-CF6-20241217

Lab Sample ID: 410-201151-6
Date Collected: 12/17/24 09:25
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591837	TB8M	ELLE	01/02/25 17:43
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 00:57

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-CF7-20241217

Lab Sample ID: 410-201151-7
Date Collected: 12/17/24 09:30
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: Import-CF7-20241217

Lab Sample ID: 410-201151-7
Date Collected: 12/17/24 09:30
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591837	TB8M	ELLE	01/02/25 18:06
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 01:11

Client Sample ID: Import-CF8-20241217

Lab Sample ID: 410-201151-8
Date Collected: 12/17/24 09:35
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: Import-CF8-20241217

Lab Sample ID: 410-201151-8
Date Collected: 12/17/24 09:35
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591837	TB8M	ELLE	01/02/25 18:29
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 01:25

Client Sample ID: DUP-20241217

Lab Sample ID: 410-201151-9
Date Collected: 12/17/24 00:00
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: DUP-20241217

Lab Sample ID: 410-201151-9
Date Collected: 12/17/24 00:00
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 92.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591837	TB8M	ELLE	01/02/25 18:52
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 01:38

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: FB-20241217 — Lab Sample ID: 410-201151-10

Date Collected: 12/17/24 09:40 — **Matrix: Water**
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			589433	WQ8R	ELLE	12/23/24 10:11
Total/NA	Analysis	Draft-4 1633		1	590011	RPU6	ELLE	12/27/24 11:57

Client Sample ID: Import-GF1-20241217 — Lab Sample ID: 410-201151-11

Date Collected: 12/17/24 10:00 — **Matrix: Solid**
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: Import-GF1-20241217 — Lab Sample ID: 410-201151-11

Date Collected: 12/17/24 10:00 — **Matrix: Solid**
Date Received: 12/18/24 10:40 — **Percent Solids: 90.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591837	TB8M	ELLE	01/02/25 19:15
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 01:52

Client Sample ID: Import-GF2-20241217 — Lab Sample ID: 410-201151-12

Date Collected: 12/17/24 10:05 — **Matrix: Solid**
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588333	X4C8	ELLE	12/19/24 14:58

Client Sample ID: Import-GF2-20241217 — Lab Sample ID: 410-201151-12

Date Collected: 12/17/24 10:05 — **Matrix: Solid**
Date Received: 12/18/24 10:40 — **Percent Solids: 95.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591837	TB8M	ELLE	01/02/25 19:38
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 02:32

Client Sample ID: Import-GF3-20241217 — Lab Sample ID: 410-201151-13

Date Collected: 12/17/24 10:10 — **Matrix: Solid**
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588369	X4C8	ELLE	12/19/24 16:00

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Client Sample ID: Import-GF3-20241217
Lab Sample ID: 410-201151-13
Date Collected: 12/17/24 10:10
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 92.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591837	TB8M	ELLE	01/02/25 20:01
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 02:46

Client Sample ID: Import-GF4-20241217
Lab Sample ID: 410-201151-14
Date Collected: 12/17/24 10:15
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588369	X4C8	ELLE	12/19/24 16:00

Client Sample ID: Import-GF4-20241217
Lab Sample ID: 410-201151-14
Date Collected: 12/17/24 10:15
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 92.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591837	TB8M	ELLE	01/02/25 20:24
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 03:00

Client Sample ID: DUP-20241217
Lab Sample ID: 410-201151-15
Date Collected: 12/17/24 00:00
Matrix: Solid
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	588369	X4C8	ELLE	12/19/24 16:00

Client Sample ID: DUP-20241217
Lab Sample ID: 410-201151-15
Date Collected: 12/17/24 00:00
Matrix: Solid
Date Received: 12/18/24 10:40
Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			591440	JDJ2	ELLE	12/31/24 18:13
Total/NA	Analysis	8270E SIM		1	591837	TB8M	ELLE	01/02/25 20:47
Total/NA	Prep	1633 Shake			589061	X3LR	ELLE	12/21/24 09:13
Total/NA	Analysis	1633		1	589353	P7EB	ELLE	12/24/24 03:13

Client Sample ID: FB-20241217
Lab Sample ID: 410-201151-16
Date Collected: 12/17/24 10:20
Matrix: Water
Date Received: 12/18/24 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			589653	T9CY	ELLE	12/23/24 17:51
Total/NA	Analysis	8270E SIM		1	590664	TB8M	ELLE	12/30/24 08:36

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Lab Chronicle

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10670	04-01-25

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

Analysis Method	Prep Method	Matrix	Analyte
1633	1633 Shake	Solid	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633	1633 Shake	Solid	1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)
1633	1633 Shake	Solid	1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)
1633	1633 Shake	Solid	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633	1633 Shake	Solid	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633	1633 Shake	Solid	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633	1633 Shake	Solid	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633	1633 Shake	Solid	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633	1633 Shake	Solid	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633	1633 Shake	Solid	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633	1633 Shake	Solid	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633	1633 Shake	Solid	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633	1633 Shake	Solid	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633	1633 Shake	Solid	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633	1633 Shake	Solid	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633	1633 Shake	Solid	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633	1633 Shake	Solid	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633	1633 Shake	Solid	Perfluorobutanesulfonic acid (PFBS)
1633	1633 Shake	Solid	Perfluorodecanesulfonic acid (PFDS)
1633	1633 Shake	Solid	Perfluorododecanesulfonic acid (PFDoS)
1633	1633 Shake	Solid	Perfluoroheptanesulfonic acid (PFHpS)
1633	1633 Shake	Solid	Perfluorohexanesulfonic acid (PFHxS)
1633	1633 Shake	Solid	Perfluorononanesulfonic acid (PFNS)
1633	1633 Shake	Solid	Perfluorooctanesulfonamide (PFOSA)
1633	1633 Shake	Solid	Perfluoropentanesulfonic acid (PFPeS)
Draft-4 1633	1633	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
Draft-4 1633	1633	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
Draft-4 1633	1633	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
Draft-4 1633	1633	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

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

Authority	Program	Identification Number	Expiration Date

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

Analysis Method	Prep Method	Matrix	Analyte
Draft-4 1633	1633	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
Draft-4 1633	1633	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
Draft-4 1633	1633	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
Draft-4 1633	1633	Water	Perfluorodecanesulfonic acid (PFDS)
Draft-4 1633	1633	Water	Perfluorododecanesulfonic acid (PFDoS)
Draft-4 1633	1633	Water	Perfluorononanesulfonic acid (PFNS)
Draft-4 1633	1633	Water	Perfluorooctanesulfonamide (PFOSA)
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	ELLE
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	ELLE
Draft-4 1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	ELLE
Moisture	Percent Moisture	EPA	ELLE
1633	Solid-Phase Extraction (SPE)	EPA	ELLE
1633 Shake	Shake Extraction with SPE	EPA	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Brown and Caldwell
Project/Site: Troy NY Water PFAS

Job ID: 410-201151-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-201151-1	Import-CF1-20241217	Solid	12/17/24 09:00	12/18/24 10:40
410-201151-2	Import-CF2-20241217	Solid	12/17/24 09:05	12/18/24 10:40
410-201151-3	Import-CF3-20241217	Solid	12/17/24 09:10	12/18/24 10:40
410-201151-4	Import-CF4-20241217	Solid	12/17/24 09:15	12/18/24 10:40
410-201151-5	Import-CF5-20241217	Solid	12/17/24 09:20	12/18/24 10:40
410-201151-6	Import-CF6-20241217	Solid	12/17/24 09:25	12/18/24 10:40
410-201151-7	Import-CF7-20241217	Solid	12/17/24 09:30	12/18/24 10:40
410-201151-8	Import-CF8-20241217	Solid	12/17/24 09:35	12/18/24 10:40
410-201151-9	DUP-20241217	Solid	12/17/24 00:00	12/18/24 10:40
410-201151-10	FB-20241217	Water	12/17/24 09:40	12/18/24 10:40
410-201151-11	Import-GF1-20241217	Solid	12/17/24 10:00	12/18/24 10:40
410-201151-12	Import-GF2-20241217	Solid	12/17/24 10:05	12/18/24 10:40
410-201151-13	Import-GF3-20241217	Solid	12/17/24 10:10	12/18/24 10:40
410-201151-14	Import-GF4-20241217	Solid	12/17/24 10:15	12/18/24 10:40
410-201151-15	DUP-20241217	Solid	12/17/24 00:00	12/18/24 10:40
410-201151-16	FB-20241217	Water	12/17/24 10:20	12/18/24 10:40

Eurofir
2425 New
Lancaster,
Phone: 71

410-201151 Chain of Custody

Chain of Custody Record

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Client In

Sampler: Kaleb Atkins	Lab PM: Weyandt, Barbara A	Carrier Tracking No(s):	COC No: 410-138244-13964.1
Client Contact: ~~Mr. Steve Dentice~~ Adam Sherman	Phone: 318-209-0440	E-Mail: Barbara.Weyandt@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Brown and Caldwell	PWSID:		Job #:
Address: 500 N. Franklin Turnpike Suite 306	Due Date Requested:		
City: Ramsey	TAT Requested (days): STANDARD		
State, Zip: NJ, 07446	Compliance Project: Δ Yes Δ No		
Phone: 201-574-4713(Tel)	PO #: 152167.205		
Email: Asherman sdentico@brwncald.com	WO #:		
Project Name: Troy NY Water PFAS	Project #: 41003608		
Site:	SSOW#:		

Preservation Codes: N - None

Other:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633, Moisture	1633 - List of 40 (EPA 1633 Draft Method)	8270E_SIM, Moisture	8270E_SIM, 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N				
Import-CF1-20241217	12-17-24	0900	C	S			X	X	X	X	2	
Import-CF2-20241217		0905	C	S			X	X	X	X	2	
Import-CF3-20241217		0910	C	S			X	X	X	X	2	
Import-CF4-20241217		0915	C	S		Y	X	X	X	X	6	MS/MSD
Import-CF5-20241217		0920	C	S			X	X	X	X	2	
Import-CF6-20241217		0925	C	S			X	X	X	X	2	
Import-CF7-20241217		0930	C	S			X	X	X	X	2	
Import-CF8-20241217		0935	C	S			X	X	X	X	2	
DUP-20241217		9999	C	S			X	X	X	X	2	
FB-20241217		0940	G	W				X		X	2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) NYS CAT B

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Kaleb Atkins	12-17-24/1530	BC			
				12/18/24 1040	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.2-C1.3

Ver: 10/10/2024

1/2/2025

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: Kaleb Atkins	Lab PM: Weyandt, Barbara A	Carrier Tracking No(s):	COC No: 410-138243-13963.1
Client Contact: ~~Mr. James Marolda~~ Adam Sherman	Phone: 318-209-0440	E-Mail: Barbara.Weyandt@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Brown and Caldwell	PWSID:			Job #:
Address: 500 North Franklin Turnpike Suite 306	Due Date Requested:			Preservation Codes: N - None
City: Ramsey	TAT Requested (days): STANDARD			
State, Zip: NJ, 07446	Compliance Project: Δ Yes Δ No			
Phone: 201-574-4713(Tel)	PO #: 152167.205			
Email: Asherman ~~jmarolda~~@brwncald.com	WO #:			
Project Name: Troy NY Water 1,4-Dioxane	Project #: 41003608			Other:
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270E_SIM, Moisture	8270E_SIM - 1,4-Dioxane	1633, moisture	1633 - List of 40 (EPA 633 Dioxanes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N				
Import - GF1 - 20241217	12-17-24	1000	C	S			X	X	X	X	2	
Import - GF2 - 20241217		1005	C	S			X	X	X	X	2	
Import - GF3 - 20241217		1010	C	S			X	X	X	X	2	
Import - GF4 - 20241217		1015	C	S			X	X	X	X	2	
DUP - 20241217		9999	C	S			X	X	X	X	2	
FB - 20241217		1020	G	W				X		X	2	

Crossed-out samples were collected from a different fill material that will be included in a separate Request to Import package.

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) NYS CAT B

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Kaleb Atkins	12-17-24 / 1530	BC			
			[illegible]	12/18/24 1040	[illegible]

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R1.2-C1.3

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Brown and Caldwell

Job Number: 410-201151-1

Login Number: 201151
List Number: 1
Creator: Ballard, Megan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

From: Ormanoski, Michael R (DEC) <Michael.Ormanoski@dec.ny.gov>
Sent: Tuesday, June 11, 2024 4:05 PM
To: Brian F. Taylor
Cc: O'neill, Christopher (DEC); Dunham, Matthew D (DEC)
Subject: Mercury Refining (HW #401025)-Approval of Crushed Stone
Attachments:
APPROEVED_Mercury_Refin_Superfund_Request_to_Import_Crushed_Stone.pdf

Good Afternoon Brian,

NYSDEC has reviewed your June 11, 2024 *Request to Import/Reuse Fill or Soil* (attached). Based on the results of the submitted gradation analysis, this material meets the requirements of DER-10 *Section 5.4(e)5* and does not require chemical testing. NYSDEC hereby approves the import of up to 100 yd^3 of crushed stone from the Callanan Cropseyville Quarry for use by National Grid as part of the gas main and supply line work occurring at the Mercury Refining site (HW #401025). No other material beyond this approved amount will be allowed onto site without prior NYSDEC approval; this includes additional materials from the same source or any material from alternate sources.

Please contact me with any questions or concerns.

Thank You,

Mike Ormanoski
Assistant Engineer (Environmental)
DEC Region 8, Division of Environmental Remediation

New York State Department of Environmental Conservation
6274 East Avon-Lima Road, Avon, New York 14414
P: 585-226-5480| michael.ormanoski@dec.ny.gov
www.dec.ny.gov | | |

NEW YORK STATE | Department of Environmental Conservation

From: Ormanoski, Michael R (DEC) <Michael.Ormanoski@dec.ny.gov>
Sent: Friday, June 28, 2024 2:16 PM
To: Brian F. Taylor
Cc: O'neill, Christopher (DEC); Dunham, Matthew D (DEC)
Subject: FW: Mercury Refining Superfund Site - Import Pipe Bedding Sand
Attachments:
Mercury_Refining_Superfund_Site_Request_to_Import_Gas_Main_Upgrades_Common_Fill_062824.pdf

Good Afternoon Brian,

NYSDEC has reviewed your June 28, 2024 *Request to Import/Reuse Fill or Soil* (attached). Based on the provided sampling results, NYSDEC hereby approves the import of up to 400 yd^3 of sand from the Luther Forest Mine for use by National Grid as part of the gas main and supply line work occurring at the Mercury Refining site (HW #401025). No other material beyond this approved amount will be allowed onto site without prior NYSDEC approval; this includes additional materials from the same source or any material from alternate sources.

Please verify your receipt of this approval and feel free to contact me with any questions or concerns. Please provide notice to NYSDEC at least seven (7) days prior to the start of the planned site work.

Thank You,

Mike Ormanoski
Assistant Engineer (Environmental)
DEC Region 8, Division of Environmental Remediation

New York State Department of Environmental Conservation
6274 East Avon-Lima Road, Avon, New York 14414
P: 585-226-5480| michael.ormanoski@dec.ny.gov
www.dec.ny.gov | | |

NEW YORK STATE | Department of Environmental Conservation

From: Brian F. Taylor <BFTaylor@BrwnCald.com>
Sent: Friday, June 28, 2024 7:43 AM
To: Ormanoski, Michael R (DEC) <Michael.Ormanoski@dec.ny.gov>
Subject: RE: Mercury Refining Superfund Site - Import Pipe Bedding Sand

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good Afternoon Mike –

Attached please find the request to import form for common fill associated with the Mercury Refining Superfund Site and planned utility wok.

Please let me know if you would like to discuss or have any questions..

Thanks,

Brian F. Taylor, P.G.
Brown and Caldwell | Albany, NY
T 518.560.5907 | **C** 845.901.4229

PLEASE NOTE: *BC's Albany Office has moved!*
Our new office location is: 300 Great Oaks Blvd, Suite 300-070, Albany, NY 12203

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e) and 6NYCRR Part 360.13. Use of this form is not a substitute for reading the applicable regulations and Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Commercial or Industrial Us

Have Ecological Resources been identified? yes

Is this soil originating from the site? no

How many cubic yards of soil will be imported/reused? 50-100

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? yes

Does it contain less than 10%, by weight, material that passes a size 100 sieve? yes

Is this virgin material from a permitted mine or quarry? yes

Is this material recycled concrete or brick from a DEC registered processing facility? no

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

The results of the sieve analysis (refer to Attachment 1 - Crushed Stone Gradation) for the proposed crushed stone subbase material show these materials have less than 10%, by weight, passing the No. 100 sieve.
No chemical testing was performed per DER-10 Section 5.4(e)5.

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

No chemical testing was performed per DER-10 Section 5.4(e)5.

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Stephen A. Valente, Quality Representative, RJ Valente Gravel

Location where fill was obtained:

RJ Valente, 3349 Route 2, Cropseyville, NY 12052

Identification of any state or local approvals as a fill source:

NYS DOT Source 1-48R (Grafton Quarry)

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

Attachment 1 - Results of Geotechnical Sieve Analysis (crushed stone subbase)

The information provided on this form is accurate and complete.

BFTaylor@BrwnCald.com Digitally signed by BFTaylor@BrwnCald.com DN: CN=BFTaylor@BrwnCald.com Date: 2024.06.05 16:40:11-04'00'

Signature

6/5/24

Date

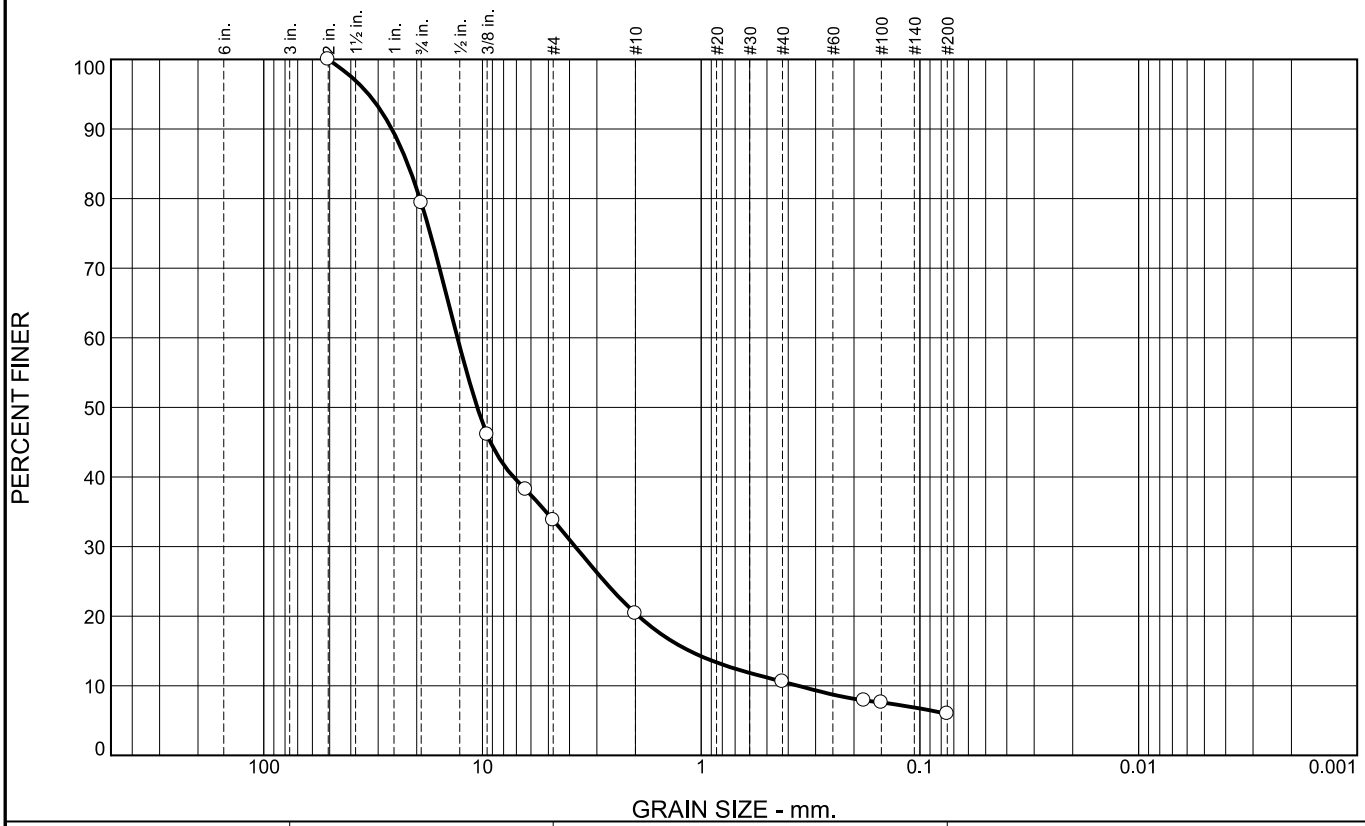
Brian Taylor

Print Name

Brown and Caldwell

Firm

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	20.6	45.6	13.4	9.8	4.6	6.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2	100.0		
.75	79.4		
.375	46.1		
.25	38.2		
#4	33.8		
#10	20.4		
#40	10.6		
#80	7.9		
#100	7.6		
#200	6.0		

* (no specification provided)

Soil Description

Crusher Run

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 26.0048 D_{85}= 21.9927 D_{60}= 13.0224
D_{50}= 10.5715 D_{30}= 3.7664 D_{15}= 1.1276
D_{10}= 0.3603 C_u= 36.15 C_c= 3.02

Classification

USCS= AASHTO=

Remarks

Location: Crushed Stone Subbase
Sample Number: 22-556

Date: 9/7/22

QCQA Laboratories, Inc.

Schuylerville, NY

Client:
Project:

Project No: ST22-078 **Figure** 22-556